







SUSTAINABLE G ALS

REPORT 2022







SDG 2 focuses on ensuring adequate healthy food access while supporting resilient agriculture techniques that respect workers and the land. The implementation of SDG 2 at Manipal University Jaipur is evident in academic effort to create Sustainable agricultural and food distribution systems, as well as providing access to healthy and sustainable food options for individuals on





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Measuring Food Waste Generation in Manipal University Jaipur

Food waste is a pressing global issue, and universities, with their large dining facilities and diverse student populations, are not exempt from contributing to this problem. Measuring the extent of food waste generated in universities is a crucial step in addressing this issue and promoting sustainability on campus. Manipal University Jaipur quantifies food waste in the institutions.

Manipal University Jaipur has a social responsibility to ensure that food resources are distributed equitably. Reducing waste can free up resources to support food security initiatives and reduce hunger on campus. The significance of measuring food waste in the university has environmental impact, Food waste in university has environmental consequences. Manipal University Jaipur spends significant budgets on purchasing, preparing, and serving food. (Picture1)

Manipal University Jaipur measures food waste, conducting regular waste audits involves collecting and sorting food waste to determine its composition and volume. (Picture 2) This hands-on approach provides detailed insights into what, when, and why food is being wasted. Manipal University Jaipur weighs the food waste generated at various points in the food service process, such as kitchen prep, serving lines, and dining areas. (Picture 3) This data is tracked over time to identify trends and areas for improvement. Manipal University Jaipur employs surveys and innovative technologies like smart bins equipped with sensors to gather real-time data on food waste. (Picture 4) These methods provide a more comprehensive understanding of consumer behavior.

Accurate data on food waste allows Manipal University Jaipur to identify specific areas where waste occurs most frequently. This enables them to implement targeted strategies for waste reduction(Picture 5, 6, 7). By reducing food waste, Manipal University Jaipur can work efficiently on purchasing and disposal costs, making dining operations more financially sustainable. Measuring food waste aligns with the university's commitment to sustainability, helps in reducing Manipal University Jaipur's environmental footprint and meet sustainability goals. The process of measuring and reducing food waste provides educational opportunities for students. It fosters awareness and encourages responsible consumption habits that students can carry forward.



Measuring food waste generated in the university is an essential step towards promoting sustainability, reducing costs, and fulfilling social responsibilities. By employing methods such as waste audits, weighing, tracking, surveys, and technology, Manipal University Jaipur gains valuable insights into their food waste patterns. With this data in hand, Manipal University Jaipur develops targeted strategies to minimize waste, become economically efficient, and contribute to a more sustainable future. Manipal University Jaipur leads by example and inspires the next generation to adopt responsible food consumption practices, and measuring food waste is a key part of that endeavor.



DISPOSAL OF SOLID WASTE - INHOUSE

Solid Waste Management

- Organic waste from kitchen and horticulture used in Biogas Plant which supplies fuel to Food Court.
- 2. Recyclable solid waste collected separately
- Pilot project with BEIL (Bharuch Enviro Infrastructure Ltd) for converting MSW to Fuel / Energy.
- 4. Bio Medical waste is collected separately and Disposed
- 5. Papers printed on one side are not discarded but reused.
- Agreement for external agency for partial waste management (click here)



Bio-Gas generation system 30kg of Gas per day with 500 kg of Kitchen waste





Picture 1: Cold Room for food storage





Picture 2: Garbage Segregation in Garbage Segregation Area





Picture 3: Garbage Segregation done at MUJ





Picture 4: Installation of Smart Bins and waste oil tins for scrap and Recyling







Picture 5: Daily food waste measurement in the mess and displayed

Picture 6: Food Waste reduction awareness messages in the MUJ Premises



Picture 7: Food Waste reduction awareness messages in the MUJ Premises





Date	Student count	Total Weight	wastage average	Date	Student count	Total Weight	wastage average	Date	Student count	Total Weight	wastage average
1-Jul	6500.00	27	0.00	1-Aug	6500.00	266	0.04	1-Sep	6500.00	520	0.08
2-Jul	6500.00	21	0.00	2-Aug	6500.00	364	0.06	2-Sep	6500.00	470	0.07
3-Jul	6500.00	24	0.00	3-Aug	6500.00	310	0.05	3-Sep	6500.00	498	0.08
4-Jul	6500.00	30	0.00	4-Aug	6500.00	456	0.07	4-Sep	6500.00	567	0.09
5-Jul	6500.00	27	0.00	5-Aug	6500.00	371	0.06	5-Sep	6500.00	460	0.07
6-Jul	6500.00	24	0.00	6-Aug	6500.00	379	0.06	6-Sep	6500.00	489	0.08
7-Jul	6500.00	23	0.00	7-Aug	6500.00	238	0.04	7-Sep	6500.00	455	0.07
8-Jul	6500.00	24	0.00	8-Aug	6500.00	342	0.05	8-Sep	6500.00	586	0.09
9-Jul	6500.00	29	0.00	9-Aug	6500.00	346	0.05	9-Sep	6500.00	491	0.08
10-Jul	6500.00	21	0.00	10-Aug	6500.00	378	0.06	10-Sep	6500.00	519	0.08
11-Jul	6500.00	27	0.00	11-Aug	6500.00	386	0.06	11-Sep	6500.00	627	0.10
12-Jul	6500.00	21	0.00	12-Aug	6500.00	410	0.06	12-Sep	6500.00	476	0.07
13-Jul	6500.00	30	0.00	13-Aug	6500.00	343	0.05	13-Sep	6500.00	567	0.09
14-Jul	6500.00	22	0.00	14-Aug	6500.00	379	0.06	14-Sep	6500.00	581	0.09
15-Jul	6500.00	66	0.01	15-Aug	6500.00	466	0.07	15-Sep	6500.00	480	0.07
16-Jul	6500.00	35	0.01	16-Aug	6500.00	421	0.06	16-Sep	6500.00	542	0.08
17-Jul	6500.00	34	0.01	17-Aug	6500.00	445	0.07	17-Sep	6500.00	505	0.08
18-Jul	6500.00	28	0.00	18-Aug	6500.00	471	0.07	18-Sep	6500.00	568	0.09
19-Jul	6500.00	36	0.01	19-Aug	6500.00	574	0.09	19-Sep	6500.00	604	0.09
20-Jul	6500.00	76	0.01	20-Aug	6500.00	494	0.08	20-Sep	6500.00	611	0.09
21-Jul	6500.00	61	0.01	21-Aug	6500.00	588	0.09	21-Sep	6500.00	671	0.10
22-Jul	6500.00	79	0.01	22-Aug	6500.00	497	0.08	22-Sep	6500.00	689	0.11
23-Jul	6500.00	79	0.01	23-Aug	6500.00	577	0.09	23-Sep	6500.00	924	0.14
24-Jul	6500.00	107	0.02	24-Aug	6500.00	551	0.08	24-Sep	6500.00	906	0.14
25-Jul	6500.00	76	0.01	25-Aug	6500.00	614	0.09	25-Sep	6500.00	716	0.11
26-Jul	6500.00	98	0.02	26-Aug	6500.00	600	0.09	26-Sep	6500.00	601	0.09
27-Jul	6500.00	106	0.02	27-Aug	6500.00	551	0.08	27-Sep	6500.00	630	0.10
28-Jul	6500.00	125	0.02	28-Aug	6500.00	563	0.09	28-Sep	6500.00	929	0.14
29-Jul	6500.00	295	0.05	29-Aug	6500.00	562	0.09	29-Sep	6500.00	963	0.15
30-Jul	6500.00	155	0.02	30-Aug	6500.00	533	0.08	30-Sep	6500.00	771	0.12
31-Jul	6500.00	211	0.03	31-Aug	6500.00	500	0.08			0	
Grand Total	201,500.00	2,017.00	0.31	Grand Total	201,500.00	13,975.00	2.15	Grand Total	195,000.00	18,416.00	2.83





Daily Wise Average per Plate Wastage





SOP -KST

PURPOSE: To establish a procedure for housekeeping (KST) activities.

SCOPE: The scope of KST activities is as follows:

- a) KST Manpower
- b) Handling of KST consumables
- c) Premises Cleaning
- d) Garbage Management

RELEVANT STAKE HOLDERS:

S.No.	Process Step	Responsibility	Authorized by	
1	Preparation of Duty Roaster	KST Head	Unit Head/ Unit Chef	
2	Preparation of Cleaning Schedule	KST Supervisor	Unit Chef	
3	Maintenance of Chemical stock and Equipment	KST Supervisor	KST Head	
4	Chemical Dilution	KST Supervisor	FSMS Head	
5	Segregation of waste	KST Supervisor	Unit chef	

PROCEDURE

a) KST Manpower

- The duty roaster is made by the KST supervisor by considering the intensity of operation in each area.
- Shift supervisor shall take a small briefing for all of his team members in the beginning of the shift and explain the roles, do's & don't to be followed on the day.
- KST supervisor checks the personal hygiene of all the employees before beginning of the shift and the same is recorded in the personal hygiene checklist.
- The supervisors shall provide the necessary PPEs like aprons, gloves, hair nets, face masks (if required) to each staff.

b) Handling of KST consumables:

- As per the requirements, the KST supervisor shall fill the store requisition slip (SRS) with the details of items required for a day.
- The indent shall be signed by the KST head/unit head/unit chef and is sent to the store department for issuing of the material.
- A KST personnel shall receive the items from store and acknowledge the same.
- All the chemicals & KST items issued shall be kept in segregated area, separate from the production area, under lock and key to prevent misuse and mishandling.



- Supervisor is responsible for maintaining stock and controlling the receiving and issuing of the items which shall be recorded.
- Material Safety Data Sheet (MSDS) for all chemical being used in the premises needs to be displayed in a designated area of the unit.
- Awareness of MSDS shall be taken care in the chemical usage training.

c) Premises Cleaning

- Dilution of the chemicals are done and monitored by the shift KST supervisor and the consumption is recorded.
- The chemicals are diluted and kept separately away from the food.
- A cleaning schedule shall be developed at site and the same is been followed & recorded.
- The deep cleaning of the kitchen is done at least once in a week and recorded in the kitchen cleaning schedule record.
- The team shall monitor the rood-box and gum traps daily and replace if needed and any pest spotted is recorded in the pest sighting checklist.
- KST supervisor shall monitor the pest control activity and ensures the activities are happening as scheduled.
- Post pest control activity the premises is thoroughly washed within recommended time to remove the used chemicals.

Garbage disposal:

- Specific areas shall be assigned for placing dustbins. The dustbins to be always kept in closed condition with its lids.
- Garbage shall be removed from each dustbin frequently when its 3/4th filled and placed in the assigned garbage room until it's lifted by the garbage vendors.
- Wet and dry garbage shall be stored separately so that there is no cross contamination between both.
- Wet garbage clearance depends on the local municipal guidelines
- After it is cleared the garbage room has to be cleaned daily using suitable chemicals and air dried before use.
- The contact details of local municipal garbage clearance team to be made available. Supervisors /Unit heads to ensure that the wet wastes are cleared within 24-36 hours.
- If there is any deviation/delay in collecting the garbage's from the garbage collector same to be recorded with proper reason.



Scrap waste handling

Si no	Common types of Scrap items generated usually includes
1	Carton boxes part of bulk packing, recyclable plastic like milk packets etc
2	Empty oil tins
3	Glass items/Bottles
4	Scrap metal utensils/Equipment

- Specific areas to be assigned for placing scrap waste generated and should be away from production premises.
- These scarps should not be placed within the production premises.
- A vendor to collect these scrap items to be identified and assigned considering the geographical limitation and non-availability of scrap vendor operation team shall initiate and assign the scrap vendor locally who would visit as per the requirement needed i.e. or call service. It shall be documented in a book/register with suitable approval from management.
- The unit chef/unit head to decide the frequency of scrap clearance based on the volume of production/purchase scrap accumulated across the individual QFS units.
- In general scrap shall are cleared at least twice a month.
- If there is delay in collecting the scrap from vendor, the supervisor shall do a follow up on the same.
- Cleanliness of assigned scrap area to be well maintained and cleaned regularly to ensure that the area doesn't become a breeding place for pests and rodents.
- Asset management approval to be taken if any equipment /asset of QFS to be moved out as scarp when the machine/equipment can no longer be repaired/rectified.

Format/ Record name	Format number	Responsible
Cleaning of chiller	QFS/HC/KST/01	KST Supervisor
Cleaning of Freezer	QFS/HC/KST/02	KST Supervisor
General cleaning – Floor/Ceiling	QFS/HC/KST/03	KST Supervisor
Deep cleaning - Kitchen/Production	QFS/HC/KST/04	KST Supervisor
Deep cleaning - Pot wash	QFS/HC/KST/05	KST Supervisor
Grooming Checklist	QFS/HC/KST/06	KST Supervisor
Garbage clearance	QFS/HC/KST/07	KST Supervisor
Chemical Usage Record	QFS/HC/KST/08	KST Supervisor

Records





Manipal University Jaipur Programme in Place on Student Food Insecurity

Food insecurity is a growing concern on college and university campuses worldwide. As students pursue their higher education, many face the harsh reality of not having enough to eat regularly. This issue not only affects their physical health but also impacts their academic performance and overall well-being. Recognizing the severity of this problem Manipal University Jaipur have been implementing programs to address student food insecurity, ensuring that no student goes hungry while pursuing their dreams.

Food insecurity can have a profound impact on students' academic success. Hungry students often find it challenging to concentrate in class and may experience reduced cognitive abilities. This can lead to lower grades, decreased class attendance, and a higher likelihood of dropping out of school. To address these issues, Manipal University Jaipur is taking proactive steps to support their students. Manipal University Jaipur established oncampus food pantries where students in need can access essential groceries and food items for free or at a significantly reduced cost. (Picture1 & 2) These pantries are discreet and offer a wide variety of non-perishable and fresh food items. Manipal University Jaipur promotes students with meal plans to share meals with their peers in need. This program reduces food waste and also ensures that students have access to nutritious meals. Educational campaigns and workshops on budgeting, meal planning, and cooking skills are helping students manage their resources more effectively. (Annexure1,2,3&4) These programs empower students to make healthier and more affordable food choices. Manipal University Jaipur is partnering with local food banks and nonprofits to enhance their food security initiatives. (Picture 2) This collaboration helps expand the reach of these programs and provide students with additional resources. Implementing programs to combat student food insecurity has yielded positive outcomes. (Annexure 5) Students who receive support through these initiatives report improved academic performance, reduced stress, and an increased sense of belonging within the university community. Furthermore, these programs promote a culture of empathy and solidarity among students. (Picture 3&4)

Addressing student food insecurity is a crucial step in ensuring that all students have an equal opportunity to succeed in educational pursuits. Manipal University Jaipur is increasingly recognizing the importance of these programs, not only for the well-being of their students but also for the overall success of the institution.







Picture 1: GHS Mess in the University Hostel Campus



Picture 2: Food Mess at MUJ Campus







Picture 2: Food Outlet in Academic Block of MUJ



Picture 3: Hunger prevention outreach activity







Picture 4: dining at NGO



Picture 5: Food Outlets in MUJ Campus







Picture 5: Food Outlets in MUJ Campus facilitating various food choices to the students



Picture 5: Food Outlets in MUJ Campus facilitating various food choices to the students







Picture 5: Food counter in MUJ Campus facilitating various healty food choices to the students

<u>Annexure 5</u>

Courses Offered

Course Code	Course Name	Lab/Theory	Semester
HA1101	Food Production Foundation - I	Theory	Ι
HA1131	Food Production Lab - I	Lab	I
HA1201	Food Production Foundation - II	Theory	II
HA1231	Food Production Lab - II	Lab	I
HA2101	Introduction to Indian Cuisine	Theory	Ξ
HA2131	Indian Cuisine Lab	Lab	III
HA2201	Global Cuisine & Patisserie	Theory	IV
HA2231	Global Cuisine Lab	Lab	IV
HA3241	Culinary Management – I (Specialization)	Lab	VI
HA4141	Culinary Management – I (Specialization)	Lab	VII
BT6202	Plant Biotechnology	Theory	II
BT1201	Mycology, and Plant Pathology	Theory	Π
BT1101	Diversity of Lower Plants	Theory	I
BT1212	Microbial Nutrition and Growth	Theory	





MUJ/Q&C/FoMC/SHTM/Dec-2021/Outreach Activity





FACULTY OF MANAGEMENT & COMMERCE

SCHOOL OF HOSPITALITY AND TOURISM MANAGEMENT

&

EPICUREAN CLUB

In association with

DIRECTORATE OF STUDENT WELFARE

organized an

OUTREACH ACTIVITY

at

Ashray Care Home

10th December 2021



1. Introduction of the Event

SHTM & Epicurean club in association with Directorate of Student Welfare organized an outreach program at Ashray Care on 10th Dec 2021.

2. Objective of the Event

- Organizing a social activity
- Develop value ethics among the students

3. Beneficiaries of the Event

NGO (Aashraya Care Home): The Aashray Care Home was established in 2006 by the Positive Women Network of Rajasthan. Harassment and stigma issues necessitated starting a care home for children affected by HIV and AIDS. Children living with HIV are in an extremely vulnerable situation because they are usually single or double orphans. Children usually get HIV infection from their mother during the pregnancy and birth. Because of lack of knowledge sometimes both the parents are affected and financially not capable to take care of infected child. Aashray take care of children of such families. Currently there are 60 children between the ages of 5 to 18 years residing at the care homes. This initiative is supported by dedicated staff members and several individual volunteers and organizations. Parents and relatives of the children staying at the care home are free to visit the children at the care home. Family members are also counseled to take care of children during their home visits.

https://www.aashraycare.org/about_aashray.html

4. Brief Description of the event

Outreach program with this very motive the students of Epicurean club run by School of Hospitality & Tourism Management came up with the idea a fund raiser for the children of orphanage. A threeday fest, with stalls put up for mocktails, bakery products and subs for sale. The preparation for the fest started weeks before it took place. A team was made of 45-50 students which not only included the students of SHTM but from different departments of the university, from BBA to Law. Participants were divided into core teams namely, production, packaging, promotions, and on-sit working team preparing fresh mocktails, subs and selling them at the venue. Pre-ordering started a week before the fest for cookies and cakes. Its was open for the management and faculty members. An unexpectedly warm response was experienced. The fest was in collaboration with various other clubs of MUJ to entertain the students in the hostel and gain their attention. The menu included 8 different types of mocktail, 3 varieties of cupcakes, pastries, and cakes each, 4 different types of cookies and 4 different variety of subs- 2 veg and 2 non-veg. The team was led by the final year students of Hotel Management showing great leadership skills and teamwork. It was a first ever food fest of MUJ indulged with lots of flavors of food and humanity shown through every penny of contribution made by the students and faculty members. After the generation money it is donated in form of requirement of the NGO. Requirement list is attached for references.



5. Photograph



1*Faculty and MUJ students at Ashray Care, Jaipur*



Prof. G. K. Prabhu – President MUJ is addressing the event members



6. ATTENDANCE DETAILS: 24 students and 04 faculty

OUTREAC	n E	VENT Timing:		[Date: 10/DEC/202
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ince/Participatio	n of stu	dents for the OUTPEAS	ch l	EVENT,	Ten Adelania
Program	Sem	Student's Name		Registration No.	Signature
BHM/BBAH&T		Divyam Acran		20301002	Lennely
BHM/BBA H&T		Ritugai Singh		210801011	And I
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3 BHM/BBA H&	Т	SIDDHI CHAUHAN		210801027	C. Q.
4 BHM/BBA H&	T	Copon Birnatele		200801026	the .
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BHM/BBA H&	Г	1			0
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Faculty list:

- Mr Aravind Kumar Rai (Faculty-SHTM, Coordinator-Epicurean Club),
- Dr Shweta Upamanyu,
- Mr Abhay Kashyap and
- Dr Amit Datta

7. Approvals

MUJ/Q&C/FoMC/SHTM/November-2022/Outreach Program – 1



FACULTY OF MANAGEMENT & COMMERCE

SCHOOL OF HOSPITALITY AND TOURISM MANAGEMENT

&

EPICUREAN CLUB

In association with

DIRECTORATE OF STUDENT WELFARE

OUTREACH ACTIVITY

At

MATRA CHAYA BAL GRAH, VAISHALI NAGAR, JAIPUR

25TH November 2022





SHTM & Epicurean club in association with Directorate of Student Welfare organized an outreach program at MATRA CHAYA BAL GRAH on 25th Nov 2022.

2. Objective of the Event

- Organizing an outreach activity
- Develop value ethics among the students

3. Beneficiaries of the Event

Matra Chaya Bal Grah is an orphanage which provides education, shelter and other basic needs to the homeless, and abandoned children. It is a safe place for children who are looking for shelter and food. They take education seriously and provide the same to the children.

4. Brief Description of the event

The motive to inculcate corporate social responsibility among the students, Epicurean club run by School of Hospitality & Tourism Management came up with the Idea of raising funds for the children of the orphanage. The fest lasted for three days, which included stalls that sold various snacks and beverages. A team was made consisting of 25-30 students which not only included the students of SHTM but from different departments of the university like BBA and MBA. Participants were divided into core teams namely, production, promotion, sales and marketing and management. Every item that was sold was freshly made in kitchen lab of SHTM and the onsite team makes delicious mocktails. The menu included 7 different types of beverages, fast food like fries, cheese balls, rolls (veg and nonveg) bakery products like brownie, cupcake, choco lava cake. The team was led by the students of Hotel Management and the members of Epicurean Club under the guidance of the faculty members of SHTM, showing great leadership skills and teamwork. We were happy that we got a chance to serve at "Oneiros 2022". The total amount collected at the end of the fest was donated to charitable trust.





5. Photographs



Students of SHTM and Epicurean Club are serving food prepared by them to the children's of *Matra Chaya Bal Grah.*



HOD of SHTM Dr. Amit Datta and President of Epicurean Club Mr. Jai Jain receiving appreciation letter and donation receipt from the Manager of Matra Chaya Bal Grah Mr. Pawan.



School of Hotel Management

&

Epicurean club Jointly organized an Outreach Program

То



Manipal University Jaipur

Helping hands Date: March 6,2021 Place: Shree hindu anath ashram

(HOD, SHA)

Report of the Outreach Program at Shree Hindu Anath Ashram:

- The team school of hotel management in association with Epicurean Club and DSW, MUJ had organized an Outreach Event on 6th of March 2021. It was a charity based event. We went to an orphanage (shri hindu anath ashram, chaura rasta Jaipur) to cheer up children and have fun along with them.
- MUJ students played some games, activities & had lunch with them.
- We went there with the ingredients and made lunch by ourselves. We made pav bhaji



there. But the menu comprised of pav bhaji, kheer and vanilla cupcakes. We had a very great time with the children there. We played many games with them like musical chairs etc. and enjoyed a lot. From the team epicurean and school of hotel management 28 members went, and we served 15 children's there. We had a very good interaction session with the children there asking them many things about themselves.

We made lunch for them and served them as it was one of the best moment to see them enjoying and eating and also provided them with a kit of stationery which consisted of basic necessity and books.



MUJ students along with the orphans at Shree Hindu Anath Asham .



Outrech event at Shree Hindu Anak Ashrem .

Overall it was a memorable effort which the students of MUJ had shared during this outreach event. All the covid related protocol was followed during the event.

Policial



Faculty

Student Coordinator: Chitransh paliwal Ph no.- 9024220709.

Chef Arvind Rai

S.NO	REGISTRATION NO.	PARTICIPANTS	Programs BHM	
1	180801001	SHUBHAM KHARAI		
2	180801003	CHITRANSH PALIWAL	BHM	
3	180801004	AAYUSH SHARMA	BHM	
4	180801008	MAYAANK KAKKAR	BHM	
5	180801009	MAYANK SHARMA	BHM	
6	180801010	JAI JAIN	BHM	
7	180801011	VRINDA JALAN	BHM	
8	180801021	RAHUL THAKUR	BHM	
9	180801031	LOVELY KUMARI	BHM	
10	180801129	YASHASHVI AGARWAL	BHM	
11	190801005	MRIDU MAHINDRA	BHM	
12	190801013	KUNAL YADAV	BHM	
13	200801011	BHAVIKA	BHM	
14	200801002	SURBHI	BHM	
15		SHREYANSH JAIN	BBA	

At hob, snm)

MUJ/Q&C/FoMC/SHTM/November-2022/Outreach Program – 2



FACULTY OF MANAGEMENT & COMMERCE

SCHOOL OF HOSPITALITY AND TOURISM MANAGEMENT

&

EPICUREAN CLUB

In association with

DIRECTORATE OF STUDENT WELFARE

OUTREACH ACTIVITY

At an orphanage

SURMAN SANSTHAN, VAISHALI NAGAR, JAIPUR

25TH November 2022

AMIT DATTA DATTA Date: 2023.01.08 20:29:27 +05'30'



SHTM & Epicurean club in association with Directorate of Student Welfare organized an outreach program at Surman Sansthan Jaipur on 25th Nov 2022.

2. Objective of the Event

- Organizing an outreach activity
- Develop value ethics among the students

3. Beneficiaries of the Event

NGO: Surman Sansthan (an NGO with ISO 9001:2008 certification) has been working to give homeless, abandoned children and women in the community shelter and other essential amenities. As of January 31, 1998, the Surman Sansthan is registered under Section 28 of the Rajasthan Cooperative Act 1958. The long-cherished desire and ideology of the creator, Mrs. Manan Chaturvedi, finally took on a structural form, and Surman Sansthan saw the light of the day. Surman is a divine home where orphans and abandoned children can find shelter together.

4. Brief Description of the event

The motive to inculcate corporate social responsibility among the students, Epicurean club run by School of Hospitality & Tourism Management came up with the Idea of raising funds for the children of the orphanage. The fest lasted for three days, which included stalls that sold various snacks and beverages. A team was made consisting students which not only included the students of SHTM but from different departments of the university like BBA and MBA. Participants were divided into core teams namely, production, promotion, sales and marketing and management. Every item that was sold was freshly made in kitchen lab of SHTM and the onsite team makes delicious mocktails. The menu included 7 different types of beverages, fast food like fries, cheese balls, rolls (veg and nonveg) bakery products like brownie, cupcake, choco lava cake. The team was led by the students of Hotel Management and the members of Epicurean Club under the guidance of the faculty members of SHTM, showing great leadership skills and teamwork. We were happy that we got a chance to serve at "Oneiros 2022". The total amount collected at the end of the fest was donated to charitable trust.


MANIPAL UNIVERSITY JAIPUR



Bro

5. Photographs



Footnote – Students of SHTM playing and enjoying with children's of Surman Sansthan.



MUJ/DSW/SC/25 Nov 2022



DIRECTORATE OF STUDENT'S WELFARE

(SOCIETY CONNECT)

In association with

FACULTY OF MANAGEMENT & COMMERCE

SCHOOL OF HOSPITALITY AND TOURISM

MANAGEMENT

&

EPICUREAN CLUB

At

MATRA CHAYA BAL GRAH, VAISHALI NAGAR, JAIPUR

25TH November 2022



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9.	Attendance of the Event	6-9



1. Introduction of the Event

SHTM & Epicurean club in association with Directorate of Student Welfare (NSS) organized an outreach program at MATRA CHAYA BAL GRAH on 25th Nov 2022.

2. Objective of the Event

- Organizing a social activity
- Develop value ethics among the students

3. Beneficiaries of the Event

Matra Chaya Bal Grah is an orphanage which provides education, shelter and other basic needs to the homeless, and abandoned children. It is a safe place for children who are looking for shelter and food. They take education seriously and provide the same to the children.

4. Details of the Guest Matra Chaya Bal Grah

Matrachhya also depends on corporate funds, philanthropic donors, volunteers and well-wishers for managing this large operation. The details of the operation include technological innovations, quality standards, delivery vehicles and interacting with various stakeholders. The organisation is highly transparent and makes available not only the financial information but also intellectual property to the public. Matrachhya believes that there is a dire need for the school lunch programme to be replicated so that it realises the vision that "No child in India shall be deprived of education because of hunger."

5. Brief Description of the event

The motive to inculcate corporate social responsibility among the students, Epicurean club run by School of Hospitality & Tourism Management came up with the Idea of raising funds for the children of the orphanage. The fest lasted for three days, which included stalls that sold various snacks and beverages. A team was made consisting of 25-30 students which not only included the students of SHTM but from different departments of the university like BBA to MBA. Participants were divided into core teams namely, production, promotion, sales and marketing and management. Every item that was sold was freshly made in kitchen lab of SHTM and the onsite team makes delicious mocktails. The menu included 7 different types of beverages, fast food like fries, cheese balls, rolls (veg and nonveg) bakery products like brownie, cupcake, choco lava cake. The team was led by the students of Hotel Management



and the members of Epicurean Club under the guidance of the faculty members of SHTM, showing great leadership skills and teamwork. We were happy that we got a chance to serve at "Oneiros 2022". The total amount collected at the end of the fest was donated to charitable trust.

6. Photographs



Students of SHTM and Epicurean Club are serving food prepared by them to the children's of **Matra Chaya Bal Grah.**



Mr. Jai Jain receiving appreciation letter and donation receipt from the Manager of Matra Chaya Bal Grah Mr. Pawan.



7. Poster of the Event:

IAIPUR

MANIPAL UNIVERSITY SHTM in association with DIRECTOR STUDENT WELFARE.



fund raised by 'MEAL CLUTCH' on 25th nov.

venue: Surman Sansthan, vaishali nagar, Jaipur (Raj) Matra chaya Bal Grah, Vaishali Nagar, Jaipur (Raj) Timing: 11:30 AM, from university gate



8. Attendance detail: - 142 students

S.No.	Reg. No	Student Name	Year	Branch
1	220801001	RAHUL SAINI	1st	HM
2	220801002	VANSHIKA	1st	HM
3	220801003	MEHMA SINGH	1st	HM
4	220801004	VIJAY PRATAP SINGH	1st	HM
5	220801005	RAKSHITA VERMA	1st	HM
6	220801006	HARSH ADITYA SINGH RATHORE	1st	HM
7	220801008	SHIVAM JAISWAL	1st	HM
8	220801009	ABHIJEET ARORA	1st	HM
9	220801010	DHANANJAY SINGH	1st	HM
10	220801012	AJAY AHIR	1st	HM
11	220801013	SARTHAK GAUTAM	1st	HM
12	220801014	NITIN KUMAR	1st	HM
13	220801015	RITU RAJPUROHIT	1st	HM
14	220801016	ALAM HUSSAIN	1st	HM
15	220801017	GARIMA PANDEY	1st	HM
16	220801018	RUDR SIKARIA	1st	HM
17	220801019	VAIBHAV ENDORIA	1st	HM
18	220801020	DHANUSHWEE L	1st	HM
19	220801021	DIVESH NIMAWAT	1st	HM
20	220801022	PREKSHA MAHESHWARI	1st	HM
21	220801023	KARANVEER SINGH RATHORE	1st	HM
22	220801025	ARUSHI RATHORE	1st	HM
23	220801026	VISHWAJEET DHATERWAL	1st	HM
24	220801027	PAWAN	1st	HM
25	220803001	SHREERAJSINH JAGATSINH RATHOD	1st	HM
26	220803003	DIVYANSH YADAV	1st	HM
27	220803004	SYED MOHD FARZAN MOINI	1st	HM
28	220803005	KOUSHAL KANSARIA	1st	HM
29	220803006	ANIE ASHOK VASWANI	1st	HM
30	220803008	LAKSHYARAJ SINGH CHAUHAN	1st	HM
31	220803009	KIRTI JAIN	1st	HM
32	220803010	DIYANSHI GOYAL	1st	HM
33	220803011	TANISHK SAINI	1st	HM
34	210801001	GAURAV AJMERA	2nd	HM
35	210801003	HARDIK CHACHAN	2nd	HM
36	210801004	TAKSHLIKA SHARMA	2nd	HM
37	210801005	GAUTAM PRATAP SINGH	2nd	HM
38	210801007	KHUSHI BAJORIA	2nd	HM
39	210801008	AKHYA UPADHYAY	2nd	HM

MANIPAL UNIVERSITY JAIPUR



SPIRED BY				
40	210801009	SHUBHAM KOCHAR	2nd	HM
41	210801011	RITURAJ SINGH BHATI	2nd	HM
42	210801012	PALAK JAISWAL	2nd	HM
43	210801013	UDHAVVEER SINGH	2nd	HM
44	210801015	ARVIND SINGH RATHORE	2nd	HM
45	210801016	VIKAS MAHAWAR	2nd	HM
46	210801017	RITESH MAHAWAR	2nd	HM
47	210801018	SHANTANU BANERJEE	2nd	HM
48	210801019	ARNNIE KHANNA	2nd	HM
49	210801020	AMBER JADON	2nd	HM
50	210801023	NEHA NIHALANI	2nd	HM
51	210801025	KHUSHI BHATIA	2nd	HM
52	210801026	JAYESH SINGODIYA	2nd	HM
53	210801027	SIDDHI CHAUHAN	2nd	HM
54	210801028	ALVIN K PAPPACHAN	2nd	HM
55	210801029	KHUSH TAK	2nd	HM
56	210801030	MANAV SHARMA	2nd	HM
57	210801031	SHOURYAVEER SINGH	2nd	HM
58	210801032	HARMAN SINGH	2nd	HM
59	210801032	MALLIKA PATODI	2nd 2nd	HM
60	210801034	NITIN KUDI	2nd 2nd	HM
61	210803001	YASODHA SUNDARARAMAN	2nd	HM
62	210803002	TUSHAR JAJOO	2nd	HM
63	210803003	ARPIT GUPTA	2nd	HM
64	210803004	RADHIKA SHARMA	2nd	HM
65	210803006	TEENAM ROY	2nd	HM
66	210803008	AKSHAT JAIN	2nd	HM
67	210803010	ROHAN SINGH	2nd	HM
68	210803011	DEVYASH SINGH CHOUHAN	2nd	HM
69	210803012	NAMDEV SINGH CHAUHAN	2nd	HM
70	210803013	ARJUN BANERJEE	2nd	HM
71	210901002	DIVYAM AERAN	2nd	HM
72	210901263	HARSHITA SONI	2nd	HM
73	200901164	Pratham Kapoor	3rd	BBA
74	209403025	Akshvin K Singhal	3rd	Mechatronics
75	209303107	Ansh Chawla	3rd	CCE
76	199303074	Vaibhav Vats	4th	CCE
77	201103019	Vani Ghai	3rd	Psychology
78	201105005	Yasha Taneja	3rd	BA Libral Arts
79	201002005	Abhinav Wadhwa	3rd	Bsc.Biotechnology
80	201007034	Garima Mahaur	3rd	Bsc. Psychology
81	200901113	Aditya Mathur	3rd	BBA
82	201103042	Navneet Bhukmariya	3rd	Psychology
83	209301040	Chandraveer Mathur	3rd	CSE
84	201105015	Deepti Meena	3rd	BA Libral Arts



MANIPAL UNIVERSITY JAIPUR

SPIRED BY L				
85	209403017	Lohit Shandiliya	3rd	Mechatronics
86	209303345	Sejal Shrisale	3rd	ССЕ
87	209303088	Atharva Chaudhari	3rd	ССЕ
88	209302183	Siddharth Dhaka	3rd	B. Tech IT
89	209302354	Raghav Ruia	3rd	Mechatronics
90	209301186	Aryan Bansal	3rd	CSE
91	209301496	Pranav Shrivastava	3rd	CSE
92	209302323	Priyam Agarwal	3rd	B. Tech IT
93	209402037	Apar Gupta	3rd	Mechanical
94	209301160	Vaibhav Shoree	3rd	CSE
95	201007007	Ayushi Gupta	3rd	Psychology
96	201015039	Parth Sharma	3rd	BCA
97	209309042	Vikramaditya Hiran	3rd	DSE
98	209303087	Akash Shedage	3rd	ССЕ
99	209301086	Urvi Dhasmana	3rd	CSE
100	201003007	Garima Ghaley	3rd	Bsc. Microbiology
101	209303333	Nivedita Ramaesh	3rd	CCE
102	201101037	Aishwarva Seth	3rd	BA-Economics
102	219302360	Disha Agarwal	2nd	IT
103	219302421	Bhavin Sehrawat	2nd 2nd	B Tech IT
104	219301155	Nishita Gogia	2nd 2nd	Btech CSE (Core)
105	219301135	Vash verma	2nd 2nd	Cse iot
100	210001018	Pratham choudhary	211d 2nd	BBA
107	210301018	Anisha Lamba	2nd	DDA DTach in CSE
108	219311101	Allislia Lalliba	2nd 1st	Maghatroniag
109	229403013	Vadia Varma	1 St	
110	229302083	Vedic Varma	1St	DTech CCE
111	229303191	Krisnang Snukla	1 St	Direct UE
112	229302371	Kishika Bhagawati		Btech II
113	229309218	Kartikey Sharma	lst	Btech data science
114	221305021	Nehal Dashottar	lst	BBA LLB
115	220113244	Daksh sharma	lst	BBA LLB
116	229309035	Krishang Goel	lst	
117	229311254	Gargi Arora	lst	CSE (IoT and IS)
118	229303405	anav lamba	lst	CCE
119	200901298	Rajeev Sharma	3rd	BBA
120	209303239	Abhinav Jindal	3rd	IT
121	209301053	Nadella Rutvik Ramana	3rd	CSE
122	211007071	Anuja pol	2nd	Bsc psychology
123	211007003	Lakshita	2nd	Bsc psychology
124	219303064	Shobhit Bansal	2nd	CCE
125	210903065	Prerana Singh	2nd	Bcom Accounting
126	219301331	Ayush Goyal	2nd	CSE
127	219310146	Yoshe vijay	2nd	BTech CSE
128	210901317	Pranav Agarwal	2nd	BBA
129	219309129	Nayonika Sharma	2nd	Data Science
		5		



MANIPAL UNIVERSITY

VSPIRED BY LINY				
131	210901184	Nihal	2nd	BBA
132	219303126	Divyanshee Saxena	2nd	Btech CCE
133	219301388	Madhur Dhingra	2nd	CSE
134	219302301	Vanshika Singh Andotra	2nd	IT
135	211103012	Jessica Agarwal	2nd	BA -psychology
136	219310180	harshit shah	2nd	CSE
137	211007011	Kashish parmar	2nd	Bsc psychology
138	219403030	rupansh goyal	2nd	mechatronics
139	219303120	Pravartika mishra	2nd	Btech IT
140	219303066	Sivam Pratik	2nd	IT
141	219301133	Soham Dixit	2nd	Btech CSE
142	219301208	Divyansh Jain	2nd	Cse core



9. Appreciation letter: -



Dear Sir,

We are hopoured to award the letter of appreciation for donation from <u>School of Hospitality and Towism Management</u> of <u>Manipal University Jaipur</u> to Our wilfare Society named as Matria Chaya Baal yran on 25 November 2022.

Rent Office - 38.4 Damas Valika Khimi Bhatak Dand Kasta Shata Shirin Conner





Club Faculty Coordinator

A

(Hemant Kumar) Assistant Director, Society Connect Directorate of Student's Welfare

(Prof. AD Vyas)

Director, Directorate of Student's Welfare

DIRECTOR STUDENT WELFARE & PROCTOR MANIPAL UNIVERSITY, JAIPUR



MUJ/DSW/SC/25 Nov 2022



DIRECTORATE OF STUDENT'S WELFARE

(SOCIETY CONNECT)

In association with

FACULTY OF MANAGEMENT & COMMERCE

SCHOOL OF HOSPITALITY AND TOURISM

MANAGEMENT

&

EPICUREAN CLUB

At

SURMAN SANSTHAN, VAISHALI NAGAR, JAIPUR

25TH November 2022



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8.	Schedule of the Event	5
9.	Attendance of the Event	6-9



1. Introduction of the Event:

SHTM & Epicurean club in association with Directorate of Student Welfare organized an outreach program at SURMAN SANSTHAN, Jaipur on 25th Nov 2022.

2. Objective of the Event:

- Organizing a social activity
- Develop value ethics among the students

3. Beneficiaries of the Event:

NGO: *Surman Sansthan* (an NGO with ISO 9001:2008 certification) has been working to give homeless, abandoned children and women in the community shelter and other essential amenities. As of January 31, 1998, the Surman Sansthan is registered under Section 28 of the Rajasthan Cooperative Act 1958. The long-cherished desire and ideology of the creator, Mrs. Manan Chaturvedi, finally took on a structural form, and Surman Sansthan saw the light of the day. Surman is a divine home where orphans and abandoned children can find shelter together.

4. Details of the Guest Surman Sansthan

Surman Sansthan (An ISO 9001:2008 certified NGO) has been working to provide shelter and other necessary amenities for destitute abandoned children and women of the society for years now. Surman is a divine home where orphaned and abandoned children live in one shelter and an atmosphere where they can wish to have dreams and wish to achieve them. We all are concerned about our own lives and families and do our utmost to keep them healthy and happy, but we should never forget that "HUMANITY IS THE HUMAN RELIGION".

Surman is a thought where we hope for a better future for children that are filled with human values. No kid should spend their life on the road, and the fragrance of their lives should spread across the world with the noble cause to have a child-friendly environment, system, and society that ensure rights of survival, development, and protection.



5. Brief Description of the Event:

The motive to inculcate corporate social responsibility among the students, Epicurean club run by School of Hospitality & Tourism Management came up with the Idea of raising funds for the children of the orphanage. The fest lasted for three days, which included stalls that sold various snacks and beverages. A team was made consisting of 25-30 students which not only included the students of SHTM but from different departments of the university like BBA to MBA. Participants were divided into core teams namely, production, promotion, sales and marketing and management. Every item that was sold was freshly made in kitchen lab of SHTM and the onsite team makes delicious mocktails. The menu included 7 different types of beverages, fast food like fries, cheese balls, rolls (veg and nonveg) bakery products like brownie, cupcake, choco lava cake. The team was led by the students of Hotel Management and the members of Epicurean Club under the guidance of the faculty members of SHTM, showing great leadership skills and teamwork. We were happy that we got a chance to serve at "Oneiros 2022". The total amount collected at the end of the fest was donated to charitable trust.

6. Photographs:



Image Students of SHTM playing and enjoying with children's of Surman Sansthan.





Awarding certificates to the students who helped in organizing this fund raiser event successfully.

7. Poster of Event:





8. Schedule of the EVENT: Date - 25th Nov 2022, Venue- Surman Sansthan, Vaishali Nagar Jaipur

9. Attendance detail: - 142 students

S.No.	Reg. No	Student Name	Year	Branch
1	220801001	RAHUL SAINI	1st	HM
2	220801002	VANSHIKA	1st	HM
3	220801003	MEHMA SINGH	1st	HM
4	220801004	VIJAY PRATAP SINGH	1st	HM
5	220801005	RAKSHITA VERMA	1st	HM
6	220801006	HARSH ADITYA SINGH	1st	HM
	220001000	RATHORE	1.	
7	220801008	SHIVAM JAISWAL	lst	HM
8	220801009	ABHIJEET ARORA	lst	HM
9	220801010	DHANANJAY SINGH	lst	HM
10	220801012	AJAY AHIR	lst	HM
11	220801013	SARTHAK GAUTAM	1st	HM
12	220801014	NITIN KUMAR	1st	HM
13	220801015	RITU RAJPUROHIT	1st	HM
14	220801016	ALAM HUSSAIN	1st	HM
15	220801017	GARIMA PANDEY	1st	HM
16	220801018	RUDR SIKARIA	1st	HM
17	220801019	VAIBHAV ENDORIA	1st	HM
18	220801020	DHANUSHWEE L	1st	HM
19	220801021	DIVESH NIMAWAT	1st	HM
20	220801022	PREKSHA MAHESHWARI	1st	HM
21	220801023	KARANVEER SINGH RATHORE	1st	HM
22	220801025	ARUSHI RATHORE	1st	HM
23	220801026	VISHWAJEET DHATERWAL	1st	HM
24	220801027	PAWAN	1st	HM
25	220803001	SHREERAJSINH JAGATSINH RATHOD	1st	HM
26	220803003	DIVYANSH YADAV	1st	HM
27	220803004	SYED MOHD FARZAN MOINI	1st	HM
28	220803005	KOUSHAL KANSARIA	1st	HM
29	220803006	ANIE ASHOK VASWANI	1st	HM
30	220803008	LAKSHYARAJ SINGH CHAUHAN	1st	HM
31	220803009	KIRTI JAIN	1st	HM
32	220803010	DIYANSHI GOYAL	1st	HM
33	220803011	TANISHK SAINI	1st	HM
34	210801001	GAURAV AJMERA	2nd	HM





35 210801003 HARDIK CHACHAN 2nd HM 36 210801004 TAKSHLIKA SHARMA 2nd HM 37 210801005 GAUTAM PRATAP SINGH 2nd HM 38 210801008 AKHYA UPADHYAY 2nd HM 40 210801008 AKHYA UPADHYAY 2nd HM 41 210801011 RTURAJ SINGH BHATI 2nd HM 42 210801012 PALAK JAISWAL 2nd HM 43 210801013 UDHAVVERS SINGH 2nd HM 44 210801016 VIKAS MAHAWAR 2nd HM 45 210801017 RITESH MAHAWAR 2nd HM 46 210801018 SHANTANU BANERJEE 2nd HM 47 210801020 AMBER JADON 2nd HM 50 210801023 NEHA NIHALANI 2nd HM 51 210801026 JAYESH SINGODIYA 2nd HM 52 210801027 SIDDHI CHAUHAN					
36 210801004 TAKSHLIKA SHARMA 2nd HM 37 210801005 GAUTAM PRATAP SINGH 2nd HM 38 210801007 KHUSHI BAJORIA 2nd HM 39 210801008 AKHYA UPADHYAY 2nd HM 40 210801009 SHUBHAM KOCHAR 2nd HM 41 210801011 RITURAJ SINGH BHATI 2nd HM 42 210801012 PALAK JAISWAL 2nd HM 43 210801013 UDHAVVEER SINGH 2nd HM 44 210801015 ARVIND SINCH RATHORE 2nd HM 45 210801017 RITESH MAHAWAR 2nd HM 46 210801019 ARNIE KHANNA 2nd HM 47 210801020 AMBER JADON 2nd HM 50 210801023 NEHA NIHALANI 2nd HM 51 210801025 KHUSHI BHATIA 2nd HM 52 210801026 JAVESK SINGODIYA <td>35</td> <td>210801003</td> <td>HARDIK CHACHAN</td> <td>2nd</td> <td>HM</td>	35	210801003	HARDIK CHACHAN	2nd	HM
37 210801005 GAUTAM PRATAP SINGH 2nd HM 38 210801007 KHUSHI BAJORIA 2nd HM 40 210801008 SHUBHAM KOCHAR 2nd HM 41 210801009 SHUBHAM KOCHAR 2nd HM 41 210801011 RITURAJ SINGH BHATI 2nd HM 42 210801012 PALAK JAISWAL 2nd HM 43 210801015 ARVIND SINGH RATHORE 2nd HM 44 210801016 VIKAS MAHAWAR 2nd HM 45 210801017 RITESH MAHAWAR 2nd HM 46 210801018 SHANTANU BANERJEE 2nd HM 47 210801020 AMER JADON 2nd HM 50 210801023 NEHA NIHALANI 2nd HM 51 210801023 KHUSHI BHATIA 2nd HM 52 210801023 KHUSHI BHATIA 2nd HM 53 210801023 NEHA NIHALANI	36	210801004	TAKSHLIKA SHARMA	2nd	HM
38 210801007 KHUSHI BAJORIA 2nd HM 39 210801008 AKHYA UPADHYAY 2nd HM 40 210801009 SHUBHAM KOCHAR 2nd HM 41 210801011 RITURAJ SINGH BHATI 2nd HM 42 210801013 UDHAVVER SINGH 2nd HM 43 210801013 UDHAVVER SINGH 2nd HM 44 210801013 VIKAS MAHAWAR 2nd HM 45 210801017 RITESH MAHAWAR 2nd HM 46 210801018 SHANTANU BANERJEE 2nd HM 47 210801020 AMBER JADON 2nd HM 50 210801025 KHUSHI BHATIA 2nd HM 51 210801025 KHUSHI BHATIA 2nd HM 52 210801026 JAYESH SINGODIYA 2nd HM 53 210801027 SIDDHI CHAUHAN 2nd HM 54 210801030 MANAV SHARMA	37	210801005	GAUTAM PRATAP SINGH	2nd	HM
39 210801008 AKHYA UPADHYAY 2nd HM 40 210801009 SHUBHAM KOCHAR 2nd HM 41 210801011 RITURAJ SINGH BHATI 2nd HM 42 210801012 PALAK JAISWAL 2nd HM 43 210801015 ARVIND SINGH RATHORE 2nd HM 44 210801016 VIKAS MAHAWAR 2nd HM 45 210801017 RITESH MAHAWAR 2nd HM 46 210801018 SHANTANU BANERJEE 2nd HM 47 210801020 AMBER JADON 2nd HM 48 210801023 NEHA NIHALANI 2nd HM 50 210801025 KHUSH BHATIA 2nd HM 51 210801026 JAYESH SINGODIYA 2nd HM 52 210801027 SIDDHI CHAUHAN 2nd HM 53 210801028 ALVIN K PAPPACHAN 2nd HM 54 210801030 MANAV SHARMA	38	210801007	KHUSHI BAJORIA	2nd	HM
40 2108010109 SHUBHAM KOCHAR 2nd HM 41 210801011 RITURAJ SINGH BHATI 2nd HM 42 210801012 PALAK JAISWAL 2nd HM 43 210801015 ARVIND SINGH RATHORE 2nd HM 44 210801016 VIKAS MAHAWAR 2nd HM 45 210801016 VIKAS MAHAWAR 2nd HM 46 210801017 RITESH MAHAWAR 2nd HM 47 210801019 ARNNIE KHANNA 2nd HM 48 210801020 AMBER JADON 2nd HM 50 210801023 NEHA NIHALANI 2nd HM 51 210801025 KHUSH BHATIA 2nd HM 52 210801026 JAYESH SINGODIYA 2nd HM 53 210801027 SIDDHI CHAUHAN 2nd HM 54 210801028 ALVIN K PAPPACHAN 2nd HM 55 210801030 MALKARA <t< td=""><td>39</td><td>210801008</td><td>AKHYA UPADHYAY</td><td>2nd</td><td>HM</td></t<>	39	210801008	AKHYA UPADHYAY	2nd	HM
41 210801011 RITURAJ SINGH BHATI 2nd HM 42 210801012 PALAK JAISWAL 2nd HM 43 210801013 UDHAVVEER SINGH 2nd HM 44 210801015 ARVIND SINGH RATHORE 2nd HM 45 210801016 VIKAS MAHAWAR 2nd HM 46 210801017 RITESH MAHAWAR 2nd HM 47 210801018 SHANTANU BANERJEE 2nd HM 48 210801020 AMBER JADON 2nd HM 50 210801025 KHUSH BHATIA 2nd HM 51 210801026 JAYESH SINGODIYA 2nd HM 52 210801027 SIDDHI CHAUHAN 2nd HM 53 210801028 ALVIN K PAPPACHAN 2nd HM 54 210801030 MANAV SHARMA 2nd HM 55 210801031 CHUNDAWAT 2nd HM 56 210801032 HARMAN SINGH	40	210801009	SHUBHAM KOCHAR	2nd	HM
42 210801012 PALAK JAISWAL 2nd HM 43 210801013 UDHAVVEER SINGH 2nd HM 44 210801015 ARVIND SINGH RATHORE 2nd HM 45 210801016 VIKAS MAHAWAR 2nd HM 46 210801017 RITESH MAHAWAR 2nd HM 47 210801019 ARNNIE KHANNA 2nd HM 48 210801020 AMBER JADON 2nd HM 50 210801023 NEHA NIHALANI 2nd HM 51 210801026 JAYESH SINGODIYA 2nd HM 52 210801027 SIDDHI CHAUHAN 2nd HM 53 210801029 KHUSH TAK 2nd HM 54 210801030 MANAV SHARMA 2nd HM 55 210801031 GHUNPAVERS SINGH 2nd HM 56 210801032 HARMAN SINGH 2nd HM 57 210801033 MALLIKA PATODI 2nd	41	210801011	RITURAJ SINGH BHATI	2nd	HM
43 210801013 UDHAVVEER SINGH 2nd HM 44 210801015 ARVIND SINGH RATHORE 2nd HM 45 210801016 VIKAS MAHAWAR 2nd HM 46 210801017 RITESH MAHAWAR 2nd HM 47 210801019 SHANTANU BANERJEE 2nd HM 48 210801020 AMBER JADON 2nd HM 50 210801023 NEHA NIHALANI 2nd HM 51 210801025 KHUSHI BHATIA 2nd HM 52 210801027 SIDDHI CHAUHAN 2nd HM 53 210801028 ALVIN K PAPPACHAN 2nd HM 54 210801029 KHUSH TAK 2nd HM 55 210801031 SHOURY AVEER SINGH 2nd HM 56 210801032 HARMAN SINGH 2nd HM 57 210801033 MALLIKA PATODI 2nd HM 60 210803003 ARTIT KUDI <t< td=""><td>42</td><td>210801012</td><td>PALAK JAISWAL</td><td>2nd</td><td>HM</td></t<>	42	210801012	PALAK JAISWAL	2nd	HM
44 210801015 ARVIND SINGH RATHORE 2nd HM 45 210801016 VIKAS MAHAWAR 2nd HM 46 210801017 RITESH MAHAWAR 2nd HM 47 210801018 SHANTANU BANERJEE 2nd HM 48 210801020 AMBER JADON 2nd HM 50 210801023 NEHA NIHALANI 2nd HM 51 210801023 NEHA NIHALANI 2nd HM 52 210801025 KHUSHI BHATIA 2nd HM 53 210801027 SIDDHI CHAUHAN 2nd HM 54 210801028 ALVIN K PAPPACHAN 2nd HM 55 210801029 KHUSH TAK 2nd HM 56 210801030 MANAV SHARMA 2nd HM 57 210801031 SHOURYAVEER SINGH 2nd HM 60 210801032 HARMAN SINGH 2nd HM 61 210803001 YASODHA SUNDARARAMAN	43	210801013	UDHAVVEER SINGH	2nd	HM
45 210801016 VIKAS MAHAWAR 2nd HM 46 210801017 RITESH MAHAWAR 2nd HM 47 210801018 SHANTANU BANERJEE 2nd HM 48 210801019 ARNNIE KHANNA 2nd HM 49 210801020 AMBER JADON 2nd HM 50 210801023 NEHA NIHALANI 2nd HM 51 210801026 JAYESH SINGODIYA 2nd HM 52 210801026 JAYESH SINGODIYA 2nd HM 53 210801027 SIDDHI CHAUHAN 2nd HM 54 210801028 ALVIN K PAPPACHAN 2nd HM 55 210801030 MANAV SHARMA 2nd HM 56 210801031 SHOURYAVEER SINGH CHUNDAWAT 2nd HM 57 210801032 HARMAN SINGH 2nd HM 60 210803001 YASODHA SUNDARARAMAN 2nd HM 61 210803001 YASODHA SUN	44	210801015	ARVIND SINGH RATHORE	2nd	HM
46 210801017 RITESH MAHAWAR 2nd HM 47 210801018 SHANTANU BANERJEE 2nd HM 48 210801019 ARNNIE KHANNA 2nd HM 49 210801020 AMBER JADON 2nd HM 50 210801023 NEHA NIHALANI 2nd HM 51 210801025 KHUSHI BHATIA 2nd HM 52 210801026 JAYESH SINGODIYA 2nd HM 53 210801027 SIDDHI CHAUHAN 2nd HM 54 210801028 ALVIN K PAPPACHAN 2nd HM 55 210801029 KHUSH TAK 2nd HM 56 210801030 MANAV SHARMA 2nd HM 57 210801031 SHOURYAVEER SINGH CHUNDAWAT 2nd HM 58 210801033 MALLIKA PATODI 2nd HM 60 210801034 NITIN KUDI 2nd HM 61 210803003 ARPIT GUPTA <	45	210801016	VIKAS MAHAWAR	2nd	HM
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51 210801025 KHUSHI BHATIA 2nd HM 52 210801026 JAYESH SINGODIYA 2nd HM 53 210801027 SIDDHI CHAUHAN 2nd HM 54 210801028 ALVIN K PAPPACHAN 2nd HM 55 210801029 KHUSH TAK 2nd HM 56 210801030 MANAV SHARMA 2nd HM 57 210801031 SHOURYAVEER SINGH CHUNDAWAT 2nd HM 58 210801032 HARMAN SINGH 2nd HM 60 210801033 MALLIKA PATODI 2nd HM 61 210803001 YASODHA SUNDARARAMAN 2nd HM 62 210803002 TUSHAR JAJOO 2nd HM 63 210803003 ARPIT GUPTA 2nd HM 64 210803004 RADHIKA SHARMA 2nd HM 65 210803006 TEENAM ROY 2nd HM 66 210803010 ROHAN SINGH	50	210801023	NEHA NIHALANI	2nd	HM
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54 210801028 ALVIN K PAPPACHAN 2nd HM 55 210801029 KHUSH TAK 2nd HM 56 210801030 MANAV SHARMA 2nd HM 57 210801031 SHOURYAVEER SINGH CHUNDAWAT 2nd HM 58 210801032 HARMAN SINGH 2nd HM 59 210801033 MALLIKA PATODI 2nd HM 60 210801034 NITIN KUDI 2nd HM 61 210803001 YASODHA SUNDARARAMAN 2nd HM 62 210803002 TUSHAR JAJOO 2nd HM 63 210803003 ARPIT GUPTA 2nd HM 64 210803004 RADHIKA SHARMA 2nd HM 65 210803006 TEENAM ROY 2nd HM 66 210803010 ROHAN SINGH 2nd HM 67 210803011 DEVYASH SINGH CHOUHAN 2nd HM 68 210803012 NAMDEV SINGH CHAUHAN	53	210801027	SIDDHI CHAUHAN	2nd	HM
55 210801029 KHUSH TAK 2nd HM 56 210801030 MANAV SHARMA 2nd HM 57 210801031 SHOURYAVEER SINGH CHUNDAWAT 2nd HM 58 210801032 HARMAN SINGH 2nd HM 59 210801033 MALLIKA PATODI 2nd HM 60 210801034 NITIN KUDI 2nd HM 61 210803001 YASODHA SUNDARARAMAN 2nd HM 62 210803002 TUSHAR JAJOO 2nd HM 63 210803003 ARPIT GUPTA 2nd HM 64 210803004 RADHIKA SHARMA 2nd HM 65 210803006 TEENAM ROY 2nd HM 66 210803008 AKSHAT JAIN 2nd HM 67 210803011 DEVYASH SINGH CHOUHAN 2nd HM 68 210803012 NAMDEV SINGH CHAUHAN 2nd HM 70 210803013 ARJUN BANERJEE	54	210801028	ALVIN K PAPPACHAN	2nd	HM
56 210801030 MANAV SHARMA 2nd HM 57 210801031 SHOURYAVEER SINGH CHUNDAWAT 2nd HM 58 210801032 HARMAN SINGH 2nd HM 59 210801033 MALLIKA PATODI 2nd HM 60 210801034 NITIN KUDI 2nd HM 61 210803001 YASODHA SUNDARARAMAN 2nd HM 62 210803002 TUSHAR JAJOO 2nd HM 63 210803003 ARPIT GUPTA 2nd HM 64 210803004 RADHIKA SHARMA 2nd HM 65 210803006 TEENAM ROY 2nd HM 66 210803008 AKSHAT JAIN 2nd HM 67 210803010 ROHAN SINGH 2nd HM 68 210803011 DEVYASH SINGH CHOUHAN 2nd HM 70 210803012 NAMDEV SINGH CHAUHAN 2nd HM 71 210901020 DIVYAM AERAN	55	210801029	KHUSH TAK	2nd	HM
57 210801031 SHOURYAVEER SINGH CHUNDAWAT 2nd HM 58 210801032 HARMAN SINGH 2nd HM 59 210801033 MALLIKA PATODI 2nd HM 60 210801034 NITIN KUDI 2nd HM 61 210803001 YASODHA SUNDARARAMAN 2nd HM 62 210803002 TUSHAR JAJOO 2nd HM 63 210803003 ARPIT GUPTA 2nd HM 64 210803004 RADHIKA SHARMA 2nd HM 65 210803006 TEENAM ROY 2nd HM 66 210803008 AKSHAT JAIN 2nd HM 67 210803010 ROHAN SINGH 2nd HM 68 210803011 DEVYASH SINGH CHOUHAN 2nd HM 69 210803012 NAMDEV SINGH CHAUHAN 2nd HM 70 210803013 ARJUN BANERJEE 2nd HM 71 21090102 DIVYAM AERAN	56	210801030	MANAV SHARMA	2nd	HM
57 210801031 CHUNDAWAT 211d HM 58 210801032 HARMAN SINGH 2nd HM 59 210801033 MALLIKA PATODI 2nd HM 60 210801034 NITIN KUDI 2nd HM 61 210803001 YASODHA SUNDARARAMAN 2nd HM 62 210803002 TUSHAR JAJOO 2nd HM 63 210803003 ARPIT GUPTA 2nd HM 64 210803004 RADHIKA SHARMA 2nd HM 65 210803006 TEENAM ROY 2nd HM 66 210803008 AKSHAT JAIN 2nd HM 67 210803010 ROHAN SINGH 2nd HM 68 210803011 DEVYASH SINGH CHOUHAN 2nd HM 69 210803012 NAMDEV SINGH CHAUHAN 2nd HM 70 210803013 ARJUN BANERJEE 2nd HM 71 210901002 DIVYAM AERAN 2nd <td>57</td> <td>210201021</td> <td>SHOURYAVEER SINGH</td> <td>Ind</td> <td>ЦМ</td>	57	210201021	SHOURYAVEER SINGH	Ind	ЦМ
58 210801032 HARMAN SINGH 2nd HM 59 210801033 MALLIKA PATODI 2nd HM 60 210801034 NITIN KUDI 2nd HM 61 210803001 YASODHA SUNDARARAMAN 2nd HM 62 210803002 TUSHAR JAJOO 2nd HM 63 210803003 ARPIT GUPTA 2nd HM 64 210803004 RADHIKA SHARMA 2nd HM 65 210803006 TEENAM ROY 2nd HM 66 210803008 AKSHAT JAIN 2nd HM 67 210803010 ROHAN SINGH 2nd HM 68 210803010 ROHAN SINGH 2nd HM 69 210803011 DEVYASH SINGH CHOUHAN 2nd HM 70 210803012 NAMDEV SINGH CHOUHAN 2nd HM 71 210901002 DIVYAM AERAN 2nd HM 72 210901002 DIVYAM AERAN 2nd <td>57</td> <td>210801031</td> <td>CHUNDAWAT</td> <td>2110</td> <td>ΠΙνΙ</td>	57	210801031	CHUNDAWAT	2110	ΠΙνΙ
59 210801033 MALLIKA PATODI 2nd HM 60 210801034 NITIN KUDI 2nd HM 61 210803001 YASODHA SUNDARARAMAN 2nd HM 62 210803002 TUSHAR JAJOO 2nd HM 63 210803003 ARPIT GUPTA 2nd HM 64 210803004 RADHIKA SHARMA 2nd HM 65 210803006 TEENAM ROY 2nd HM 66 210803008 AKSHAT JAIN 2nd HM 67 210803010 ROHAN SINGH 2nd HM 68 210803011 DEVYASH SINGH CHOUHAN 2nd HM 69 210803012 NAMDEV SINGH CHOUHAN 2nd HM 70 210803013 ARJUN BANERJEE 2nd HM 71 210901002 DIVYAM AERAN 2nd HM 72 210901263 HARSHITA SONI 2nd HM 73 200901164 Pratham Kapoor 3	58	210801032	HARMAN SINGH	2nd	HM
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63 210803003 ARPIT GUPTA 2nd HM 64 210803004 RADHIKA SHARMA 2nd HM 65 210803006 TEENAM ROY 2nd HM 66 210803008 AKSHAT JAIN 2nd HM 66 210803008 AKSHAT JAIN 2nd HM 67 210803010 ROHAN SINGH 2nd HM 68 210803011 DEVYASH SINGH CHOUHAN 2nd HM 69 210803012 NAMDEV SINGH CHOUHAN 2nd HM 70 210803013 ARJUN BANERJEE 2nd HM 71 210901002 DIVYAM AERAN 2nd HM 72 210901263 HARSHITA SONI 2nd HM 73 200901164 Pratham Kapoor 3rd BBA 74 209403025 Akshvin K Singhal 3rd CCE 76 199303074 Vaibhav Vats 4th CCE 77 201103019 Vani Ghai 3rd </td <td>62</td> <td>210803002</td> <td>TUSHAR JAJOO</td> <td>2nd</td> <td>HM</td>	62	210803002	TUSHAR JAJOO	2nd	HM
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70 210803013 ARJUN BANERJEE 2nd HM 71 210901002 DIVYAM AERAN 2nd HM 72 210901263 HARSHITA SONI 2nd HM 73 200901164 Pratham Kapoor 3rd BBA 74 209403025 Akshvin K Singhal 3rd Mechatronics 75 209303107 Ansh Chawla 3rd CCE 76 199303074 Vaibhav Vats 4th CCE 77 201103019 Vani Ghai 3rd Psychology	69	210803012	NAMDEV SINGH CHAUHAN	2nd	HM
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75 209303107 Ansh Chawla 3rd CCE 76 199303074 Vaibhav Vats 4th CCE 77 201103019 Vani Ghai 3rd Psychology	74	209403025	Akshvin K Singhal	3rd	Mechatronics
76 199303074 Vaibhav Vats 4th CCE 77 201103019 Vani Ghai 3rd Psychology	75	209303107	Ansh Chawla	3rd	CCE
77201103019Vani Ghai3rdPsychology	76	199303074	Vaibhav Vats	4th	CCE
	77	201103019	Vani Ghai	3rd	Psychology
78201105005Yasha Taneja3rdBA Libral Arts	78	201105005	Yasha Taneja	3rd	BA Libral Arts



79	201002005	Abhinay Wadhwa	3rd	Bsc.Biotechnology
80	201007034	Garima Mahaur	3rd	Bsc. Psychology
81	200901113	Aditva Mathur	3rd	BBA
82	201103042	Navneet Bhukmariya	3rd	Psychology
83	209301040	Chandraveer Mathur	3rd	CSE
84	201105015	Deepti Meena	3rd	BA Libral Arts
85	209403017	Lohit Shandiliya	3rd	Mechatronics
86	209303345	Sejal Shrisale	3rd	ССЕ
87	209303088	Atharva Chaudhari	3rd	CCE
88	209302183	Siddharth Dhaka	3rd	B. Tech IT
89	209302354	Raghav Ruja	3rd	Mechatronics
90	209301186	Arvan Bansal	3rd	CSE
91	209301496	Pranav Shrivastava	3rd	CSE
92	209302323	Privam Agarwal	3rd	B. Tech IT
93	209402037	Apar Gupta	3rd	Mechanical
94	209301160	Vaibhay Shoree	3rd	CSE
95	201007007	Avushi Gupta	3rd	Psychology
96	201015039	Parth Sharma	3rd	BCA
97	209309042	Vikramaditya Hiran	3rd	DSE
98	209303087	Akash Shedage	3rd	CCE
99	209301086	Urvi Dhasmana	3rd	CSE
100	201003007	Garima Ghalev	3rd	Bsc. Microbiology
101	209303333	Nivedita Ramaesh	3rd	CCE
102	201101037	Aishwarva Seth	3rd	BA-Economics
103	219302360	Disha Agarwal	2nd	IT
104	219302421	Bhavin Sehrawat	2nd	B.Tech IT
105	219301155	Nishita Gogia	2nd	Btech CSE (Core)
106	219311125	Yash verma	2nd	Cse iot
107	210901018	Pratham choudhary	2nd	BBA
108	219311161	Anisha Lamba	2nd	BTech in CSE
109	229403013	Gunn Verma	1st	Mechatronics
110	229302083	Vedic Varma	1st	CSE (CORE)
111	229303191	Krishang Shukla	1st	BTech CCE
112	229302371	Rishika Bhagawati	1st	Btech IT
113	229309218	Kartikey Sharma	1st	Btech data science
114	221305021	Nehal Dashottar	1st	BBA LLB
115	220113244	Daksh sharma	1st	BBA LLB
116	229309035	Krishang Goel	1st	IT
117	229311254	Gargi Arora	1st	CSE (IoT and IS)
118	229303405	anav lamba	1st	CCE
119	200901298	Rajeev Sharma	3rd	BBA
120	209303239	Abhinav Jindal	3rd	IT
121	209301053	Nadella Rutvik Ramana	3rd	CSE
122	211007071	Anuja pol	2nd	Bsc psychology
123	211007003	Lakshita	2nd	Bsc psychology



124	219303064	Shobhit Bansal	2nd	CCE
125	210903065	Prerana Singh	2nd	Bcom Accounting
126	219301331	Ayush Goyal	2nd	CSE
127	219310146	Yoshe vijay	2nd	BTech CSE
128	210901317	Pranav Agarwal	2nd	BBA
129	219309129	Nayonika Sharma	2nd	Data Science
130	219311064	Khushboo Tewari	2nd	CSE
131	210901184	Nihal	2nd	BBA
132	219303126	Divyanshee Saxena	2nd	Btech CCE
133	219301388	Madhur Dhingra	2nd	CSE
134	219302301	Vanshika Singh Andotra	2nd	IT
135	211103012	Jessica Agarwal	2nd	BA -psychology
136	219310180	harshit shah	2nd	CSE
137	211007011	Kashish parmar	2nd	Bsc psychology
138	219403030	rupansh goyal	2nd	mechatronics
139	219303120	Pravartika mishra	2nd	Btech IT
140	219303066	Sivam Pratik	2nd	IT
141	219301133	Soham Dixit	2nd	Btech CSE
142	219301208	Divyansh Jain	2nd	Cse core



10. Appreciation letter: -





Arias

Club Faculty Coordinator

CHET.

(Hemant Kumar) Assistant Director, Society Connect Directorate of Student's Welfare

0.

(Prof. AD Vyas) Director, Directorate of Student's Welfare

> DIRECTOR STUDENT WELFARE & PROCTOR MANIPAL UNIVERSITY, JAIPUR





Interventions to Prevent and Alleviate Food Insecurity among Students and Staff

Amid the pursuit of knowledge and personal growth, Manipal University Jaipur is a place of sustenance, not just for the intellect, but for the body as well. However, a growing concern is the prevalence of hunger and food insecurity among students and even staff members. In response to this issue, Manipal University Jaipur has been taking proactive steps to provide interventions that prevent and alleviate hunger within their university communities. There are measures and programs Manipal University Jaipur is implementing to combat food insecurity on campus. As food insecurity is a complex issue that affects individuals across socioeconomic backgrounds. It can manifest as limited access to nutritious meals, irregular eating patterns, and sometimes even skipping meals altogether. Research indicates that a significant portion of university students and staff experience food insecurity, impacting their physical health, mental well-being, and academic or work performance.

Manipal University Jaipur has established on-campus food pantries where students and staff can access low-cost groceries. These pantries are stocked with non-perishable items, fresh produce, and sometimes even personal care products. Manipal University Jaipur promotes students to share meals with their peers in need. This approach helps redistribute resources within the campus community. Manipal University Jaipur has set up emergency funds under Community Service Resources (CSR) to provide financial assistance to students and staff experiencing food insecurity. These funds can cover immediate food needs, preventing hunger from becoming a barrier to education or work. Manipal University Jaipur may distribute meal vouchers or coupons to individuals facing food insecurity, allowing them to dine at on-campus dining facilities.

Addressing food insecurity directly impacts the academic success of students and the productivity of staff members. Access to regular, nutritious meals can lead to better concentration, focus, and overall well-being. Implementing hunger alleviation programs fosters a sense of community and solidarity among students and staff. It sends a clear message that the Manipal University Jaipur cares about the welfare of its members. By providing resources and education on healthy eating, Manipal University Jaipur contributes to the long-term health and wellness of their academic community.





(Picture)



Universities play a vital role in shaping the lives and futures of their students and staff. By acknowledging and addressing food insecurity on campus, Manipal University Jaipur is not only ensuring that basic needs are met but also fostering an environment where





individuals can thrive academically and professionally. The interventions mentioned above demonstrate a commitment to the well-being of the university members and a dedication to creating a more equitable and compassionate learning and working environment. As Manipal University Jaipur takes these steps, we move closer to a world where hunger no longer hinders the pursuit of education and personal growth.



GHS mess at MUJ Hostel



Food Mess at MUJ Campus







Food Outlet in Academic Block at MUJ



Food Outlet at Academic Block-1 at MUJ







Food Outlet at Academic Block 2 at MUJ



Coffee shop at MUJ Academic block for MUJ Staff and Students







Coffee shop at MUJ Hostel

			MEN	J CAR	D
	ALOO PAR	ATH	A	P	AN
	1 (2ncs + Pic	kele	+ Curd) 80/-	1.	(2p
	BIRYANI		SANDWICH	<u>-</u>	
	1. Veg. Biryani 2. Egg. Biyani 3. Chicken Biryani		1. Chicken Sandwich Grilled 2. Veg Grilled Sandwich	65/- 55/-	
pepsi	SMALL SNACKS 1. Veg Puff 2. Panner Puff 3. Chicken Puff 4. Samosa Maska Pattice		HOT BEVERAGES L.Tea Small 2. Cafleo (Variety) HEALTHY CHOICE 1. Cut Fruits 2. Pincappic Glass	10/- 15/- 30/- 50/-	(
	ROLLS I. Paneer Roll 2. Chicken Roll BURGERS 1. Veg Burger	60/- 60/- 35/-	3 Watermeion (Jass 4. Papaya Glass EGGS TO DRDER 1. Bailed Egg (Zpcs) 2. Boiled Egg (Zpcs) 3. Masala Onlette	20/- 35/- 30/- 35/-	
	Logi Burger Schicken Burger SANDWICH Vog Sandwich Plain Chicken Sandwich Grilled Veg Grilled Sandwich	50/- 30/- 65/- 55/-	4. Egg Bhujee 5. Fried Egg with (2 slice bread) 6. Sunny Side up with 2 slice bread 7. Cheese Omiette with 2 slice bread 8. Spanish Omiette with 2 slice bread 9. Egg Crate (30 Eggs) All Eggs are made in Amual Putter Only	35/- 40/- 40/- 80/- 180/-	C
	MAGGIE 1. Plain Maggie 2. Veg. Maggie 3. Egg Maggie GARMA GARAM	25/- 30/- 40/-	DESERTS 1. Assorted Pastry 2. Brownie 3. Choco Balt 4. Choco Lava 5. Doughnut 0. Martine	30/- 25/- 30/- 30/- 30/-	
	1. Aloo Paratha 2. Panner Paratha 3. Veg Biryani 4. Chicken Biryani	40/- 60/- 80/- 100/-	LAN <u>E IRG</u> 1. Fruit Cake 2. Chocolate Cake 3. Butter Scotch Cake 4. Pineappie Cake 5. Black Forest Cake	600/- 560/- 560/- 460/- 560/-	
	3. Masala Mint Cooler	30/- 40/-	CAKES 500 GM I. Fruit Cake 2. Chocolate Cake 3. Butter Scotch Cake 4. Pineapple Cake 5. Black Forest Cake	320/- 290/- 290/- 290/- 240/- 290/-	
		F	A DUS E de la careté de acessita const de acessi		1

Food Choices at MUJ hostel accessed by Students and Staff



2 ZERO HUNGER

PASTAS Sta Bolognese Sauce (veg/Chicken) 170/190 ta Pesto Sauce (veg/Chicken) 170/190 i Peri Pasta (veg/Chicken) 170/190 ighetti Agilo E Olio (veg/Chicken) 170/190 sesy corn Pasta (veg/Chicken) 170/190 sesy corn Pasta (veg/Chicken) 170/190 sesy corn Pasta (veg/Chicken) 170/190 seghetti Meat Balls (chicken) 170/190 aghetti Meat Balls (veg/Chicken) 180/200 iagne (veg/Chicken) 180/200 iagne (veg/Chicken) 180/200 ia Pasta (Paneer/Chicken) 180/200 ial Pasta (Paneer/Chicken) 180/200 ual Pasta (Paneer/Chicken) 180/200 ual Pasta (Paneer/Chicken) 180/200 Matte YOUR OWN PASTA Extension Macaroni + Nonveg @185 PASTA ANY ONE Extension Macaroni + Spadhetti	<image/>	Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Status Statu	Live Live	Whene with a figure of the second s
SAUCES ANY ONE	Garlic Bread French Fries Salted French Fries Peri Peri	70 Lebanese Paneer / Chicken 80 Malai - Paneer / Chicken 90 Peri Peri-Paneer / Chicken	90 Chill Garlic -Veg-Chicken / Paneer 110/13 90 Fried -Veg-Chicken / Paneer Momos 100/12 100 BBQ Momos -Veg-Paneer / Chicken 110/13	0 Double Egg Chicken - Sheekh / Tikka 120 Grilled Wrap - Chicken / Paneer 130 Chicken Chapli Kabab Wrap 130 Whole Wheat Wrap *
Pink Sauce + Makhani Sauce Bhuna Masala	Chili Garlic Poppers Cheese Garlic Bread 1 Chili Cheese Garlic Bread 1	90 Paneer / Chicken - Keema 00 Cheese Jalapeno - Chicken / Paneer 10 Chipotle Paneer / Chicken SW	100 Peri Peri - Veg-Lnicken / Paneer 110/13 100 Malai - Veg-Chicken / Paneer 120/140 100 MAGGI/NOODLES	AND NAANZAS Herb n Cheese / Corn n Cheese / OTC 170
VEGETABLES ANY THREE Brocolli + Tomato Mushroom + Corn Baby Corn + Onion Green Pepper + Zucchini Red Pepper + Biack Olives Yellow Pepper + Red Paprika	Bruschetta Paneer / Chicken 1 Cheesy Fries 1 Pizza Pockets 1 Cheese Poppers 1 Veg Spring Rolls 1 Chicken Popcorn 1 Perl Chessy Fries 1 Chicken Fingers With Dip 1	20 Chicken Sheekh Kabab 20 Kadhai - Chicken Jeaneer / Chicken 20 Makhani - Paneer / Chicken 20 Zesty Paneer / Chicken 20 Add Extra Cheese Slice 40 Paneer / Chicken	Plain / Veg 40/50 Veg Cheese 40/50 Maggi Chicken / Chicken Cheese 70/80 Masala Outs Veg / Chicken 60/80 Veg Sectivan / Manchurlan-Nodes 80 Szechwan / Manchurlan-Chicken Koodles 80 20 EGGS Half /Full Fry	Musinom Maana, J Foe Poper Maana 190 Paneer Tilkk Nanana Jam House Maana 200 Malal Paneer / Butter Paneer Maana 210 African Paneer / Onicken Maana 210/230 Chicken Tiken Maana 220 Kodhal Chicken / Malal Chicken Nanan 240 BBQ-Paneer / Chicken Maana 240 BBQ-Paneer / Chicken Maana 240 BBQ-Paneer / Chicken Maana 240
NON VEG ANY ONE Spicy Chicken + Sausages Salami + Herby Chicken	Chicken Poppers-Szechwan/Chili Garlic 12 Chicken Nuggets 14 Cheesy Fries with Chicken 15 Chicken Cheese Balls 15	40 MEXICAN 40 Quesadilla Paneer / Chicken 50 BBQ Paneer / Chicken Taco 11 Italian Paneer / Chicken Taco	Plain Omlette / Masala Omlette 65/75 130 French Toast / Chocolate FT 80/100 130 Masala Egg French Toast 80 130 Scrambled Egg / Italian Omlette 80 130 Egg Bhuril 80	Five Chicken / Pepperand Chicken Naanza 259 Exotic-Paneer / Chicken 224/269 BROWNIES / PANCAKES Hot Chocoiste Brownie 89 120
BIRYANIS 140 neer Tikka Biryani 170 licken Tikka Biryani 190 neer/Chicken 65 Biryani 170/190 ucken Keema Biryani 200	GRILLED CHICKEN WITH SAUTE VEGGIES & BROWN BREAD, Herby 15 Tikka Style 16 BBQ Style 16 Cheesy / Peri Peri 17	BBQ vaneer / cirken faco Mexican Paneer / chicken faco Chicken Sheekh Kabab faco O Lebanese Paneer / chicken faco O chili Garlic Paneer / Chicken faco Paneer Tiika / Chicken Tikka faco	130 Chiese Omiette (Chicken Omiette 100 130 Peri Peri Chicken Omiette 120 130 Chicken Cheese Omiette 120 130 BBQ Chicken Omiette 120 130 BBQ Chicken Omiette 120 130 Extra Bread Silce / Extra Egg 5/15	Nutrella Pancake 120 Statisticscott / Chocolate Pancake 130 Booco Chip Pancake 140 Nutrella Pancake 160

Food Choices at MUJ available for students and staff













2011-11-11-11-11-11-11-11-11-11-11-11-11-					12 18 3		
COLUMN THE REAL OF	The second second second		BREAKRAST	(7,30 to 9:30)			
	28-Aug-23	29-Aug-23	30-Aug-23	31-Aug-23	01-Sep-23	02-Sep-23	03-Sep-23
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	FRIDAY	Seturday	Sunday
	MEDU VADA	ALOO PARATHA	MASALA UTTAPAM	DAL PARATHA	POORI	PLAN PARATAHA	CHANA
Main-1	SAMBAR	CURD	SAMBAR	CURD	ALOO BHAJI	WHITE MUTTER KI SUBJI	BHATURA
	MASALA OATS	CORN FLAKS	SEVAIN UPMA	CORN FLAKS	SHEERA	РОНА	CORN FLAKS
Main-11	TOMATO CHUTNEY		COCONUT CHUTNEY				GREEN CHUTNEY
BREAD	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT
HOT Beverage	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK
	COLESLAW	TOMATO CUCMBER	ΤΟΜΑΤΟ ΡΟΤΑΤΟ	COLESLAW	TOMATO CUCUMBER	COLESLAW	ΤΟΜΑΤΟ ΡΟΤΑΤΟ
EGG	BOILED EGG		BOILED EGG		BOILED EGG		BOILED EGG
Fruit	BANANA		BANANA		BANANA		BANANA
Butter	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER
Jam	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM
Pickle	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE
		Carry and the second	LUNCH (12:	QO to 14:30)			
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Standay
Salad	GREEN SALAD	SPROUT AND CORN SALAD	TOSSED SALAD	TOSSED SALAD	GREEN SALAD	GREEN SALAD	KIMCHI SALAD
Rice Dish	JEERA RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE	VEG FRIED RICE	STEAMED RICE
DAL	DAL TADKA	KADHI PAKODA	CHANA MASALA	RAJMA MASALA	DAL TADKA	BLACK CHANA	DAL FRY
VEG	BHINDI MASALA	GHIYA CHANA	ALOO TAMATRI	CABBAGE MUTTER	SOYA CHANP MASALA	VEGETABLE IN HOT GARLIC SAUCE	ALOO AMRATSARI VADI MASALA
Curd/SOUP	BOONDI RAITA	IALIEER	BUTTER MILK	CURD	BUTTER MILK	BUTTER MILK	SWEET LASSI
Bread-1	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI/POORI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI
CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI
SPECIAL.	GARLIC CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY
PAPAD	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS
			A.TETAD	1018.80			
MAIN	MOONG DAL PAKODI	FRUIT CAKE	MAGGI	PAANI PURI	WHITE SAUSE PASTA	VEG PUFF	KACHORI
TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE
			DINNER[19	307021:30)			
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Salad	_	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD
Rice Dish		STEAMED RICE	PLAIN RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE
DAL		DAL MAKAHNI	DAL TADKA	CHANA URAD DAL TADKA	ONION HING KADI	DAL MAKHANI	CHANA MOONG DAL TADKA
VEC	FOOD FESTIVAL	METHI MUTTER MALAI		RAJISTANI ALOO PYAZ		ALOO GOBHI MUTTER	VEGETABLE HAYDRABADI BIRYANI
PANEER	2		MUTTER PANEER		KADAI PANEER		NARGASI KOFTA CURRY
NON VEG			EGG CURRY		CHICKEN CURRY		CHICKEN HAYDRABADI BIRYANI
Dessert		JALEBI		MOONG DAL HALWA		RICE MAKHANE KI KHEER	BHURANI RAITA
Bread-f		MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI
THE REAL PROPERTY AND ADDRESS OF	And the second second second	and the second se	A DECK OF A	Contract of the second second			

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	V PROTECTION OF	Sector Sector	BREAKFAST	(7:30 to 9:30)		And the second second	A State of the sta
DATE	21-Aug-23	22-Aug-23	23-Aug-23	24-Aug-23	25-Aug-23	26-Aug-23	· 27-Aug-23
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	FRIDAY	Saturday	Sunday
Main-1	MEDU VADA	ALOO PYAZ HING PARATHA	SEVAIN UPMA	POORI	VEG POHA	PLAIN PARATHA	CHANA
Main-1	SAMBAR	CURD	SAMBER	внајі	MASALA DALIYA	ALOO MUTER BHAJI	BHATURA
Main II	SEVAIN UPMA	CORN FLAKS	RAWA IDLLI	SHEERA		RAWA IDLLI	CORN FLAKS
Madir- II	COCONUT CHUTNEY		CHUTNEY		CHUTNEY	CHUTNEY	GREEN CHUTNEY
BREAD	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT
HOT Beverage	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK
	COLESLAW	POTATO CUCMBER	COLESLAW	POTATO CUCMBER	COLESLAW	COLESLAW	POTATO CUCMBER
EGG	BOILED EGG		BOILED EGG		BOILED EGG		BOILED EGG
Fruit	BANANA		ΒΛΝΑΝΑ		BANANA		BANANA
Butter	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER
Jam	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM
Pickle	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE
and the states we		the Party State State State	LUNCH (12:	00 to 14:30)			
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Salad	GREEN SALAD	SPROUT SALAD	GREEN SALAD	TOSSED SALAD	TOSSED SALAD	GARDEN FRESH SALAD	GREEN SALAD
Rice Dish	STEAMED RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE	VEG BIRYANI/STEAMED RICE	STEAMED RICE	STEAMED RICE
DAL	DAL TADKA	KADHI PAKODA	BLACK URAD DAL TADKA	RAJMA MASALA	SAMBAR	CHANA MASALA	PUNJABI DAL TADKA
VEG	BHINDI MASALA	HARE BANGAN KI SUBJI	CORN PALAK	KADAI SOYABEEN	DOSA ALOO MASALA	ALOO TAMATRI	GATTA CURRY
Curd/SOUP	BUTTER MILK	RASNA	BUTTER MILK	CURD	VEG RAITA	BUTTER MILK	SWEET LASSI
Bread-1	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	PHULKA/PESARATTU	PHULKA/POORI	MULTIGRAIN ROTI
CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI
SPECIAL	GARLIC CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY	COCONUT CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY
PAPAD	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS
and a subset of farmers and		Contraction of the second	nr(17:30	OTO 18:30)	A A BOARD COMPANY TO BUT T		20 Million - 200 Million
MAIN	MAGGI	FRUIT CAKE	MIX VEG PAKODE	BHEL PURI	KACHORI	VEG PUFF	MASALA IDLI
TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE
DINNER(19:30T021:30)							
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Salad	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD
Rice Dish	PLAIN RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE
DAL	TOOR DAL TADKA	BLACK CHANA	MOONG DAL TADKA	PUNJABI DAL TADKA	HING PYAZ KADHI	DAL MAKHANI	RAJMA MASALA
VEG		ALOO BHURJI		PAPAD MOONG WADI KI SUBJI		HOME STYLE ALOO GOBHI	VEGETABLE WITH PANEER
PANEER	MUTTER PANEER		KADALDANDED		PANEER MASALA	MUTTER	VEGETABLE IN HOT GARLIC
NON VEG	HOME STYLE EGG CURRY		HVDERABADI MURC				SAUCE
Dessert		SHEEDA		POONDI BABDI	UNICKEN BRUNA MASALA	ppolubu	CHICKEN FRIED RICE
				BUUNDI KABUI		I BRUWNI	
Dessert		SHEEDA		BOONDI RABDI		BROWNI	

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TEST REPORT

Sample Description SALAD ULR No. : TC118372300000224					
Report No.	JLFD230905016				
Received Date	05/09/2023	Batch No.	NS		
Start of Analysis	05/09/2023	mig. Date	05/09/2023		
End of Analysis	11/00/2022	Exp. Date	NS		
Penort Palazza Data	11/09/2023	Sample Condition	OK		
Sample Submitted Du	12/09/2023	Sample Quantity	200g		
Sample Submitted By	QUESS CROP LIMITED MANIPAL UNIVERSITY				
	VPO. Dehmi Kallan, Ajmer Express Way, Jaipur, Rajasthan				
Test Report Issued to	QUESS CROP LIMITED MANIPAL UNIVERSITY				
	VPO. Dehmi Kallan, Ajmer Express Way, Jaipur, Rajasthan				
Sampling Details	Lab Executive Mr. Kamlesh Sharma on Above Site as per sampling plan and sampling procedure				
Environmental Condition	Room Temperature (°C): As per Standard, Relative Humidity (%): As per Standard				

TEST RESULTS

Reference to Protocol: - As per IFSA World Food Safety Guidelines Version 4, 2016.

MICROBIOLOGICAL EXAMINATION

S. No.	Test Parameters	Results	Limits (As per IFSA World Food Safety Guidelines Version 4. 2016)	Method of Tests
1.	Coliform Count	<10 cfu/g	Not Specified	IS 5401 (Part 1): 2012
2.	Salmonella	Absent/25g	Absent/25g	IS 5887 (part 3) : 1999
3.	Escherichia coli	Absent/g	<10 cfu/g	IS 5887(Part 1):1976

The above sample fit for human consumption as per IFSA world Food Safety Guidelines Version 4, 2016 as per Microbiological examination with respect to the above tests only.

End of Report



Sr. Microbiologist

NOTE :

Jaiour

Authorized Signatory Vinit Maheshwari

Technical Manager- Microbiology

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TEST REPORT

Sample Description	CHICKEN CURRY (COOKED) ULR No. : TC1183723000002241F				
Report No.	JLFD230905017				
Received Date	05/09/2023	Batch No.	NS		
Start of Analysis	05/09/2023	Mfg. Date	05/09/2023		
End of Analysis	11/09/2023	Exp. Date	NS		
Report Release Date	12/00/2023	Sample Condition	OK		
Sample Submitted By	QUESS CROP LIMITED MANUPLY STATES Sample Qty. (Approx.) 200g				
	VPO Dehmi Kallon Aimer Function Million Aimer Function				
Test Report Issued to	QUESS CROP LIMITED MANIPAL LINUXED OT STA				
	VPO. Dehmi Kallan, Ajmer Express Way, Jainur, Rajasthan				
Sampling Details	Lab Executive Mr. Kamlesh Sharma on Above Site as per sampling plan and sampling procedure				
Environmental Condition	Room Temperature (°C): As per Standard, Relative Humidity (%): As per Standard				

TEST RESULTS

Reference to Protocol: - As Per Food Safety & Standard Regulations, 2011. -

5. NO.	Test Parameters	Results	Limits (As per FSSR, 2011)	Method of Tests
1.	Saimonella	Absent/25g	Absent/25g	IS 5887(Part 3):1999
2.	Coliform Count	<10 cfu/g	Not Specified	IS 5401 (Part 1): 2012
3.	Escherichia coli	Absent/g	<100 cfu/a	IS 5887(Part 1):1976
4.	Bacillus cereus	<10 cfu/g	Not Specified	IS 5887 (Part 6) : 2012

The above sample fit for human consumption as per FSSAI, 2011 as per microbiological examination with respect to the above

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Technical Manager- Microbiology

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TEST REPORT

ULR No. : TC1183723000002242F

FORMATING: JL/F/30

Sample Description	KADHI PAKORA	ULF	NO.: 101183723000002242F		
Report No.	JLFD230905018	D.(L.N.			
Received Date	05/09/2023	Batch No.	NS		
Start of Analysis	05/00/2020	Mfg. Date	05/09/2023		
End of Analysis	05/09/2023	Exp. Date	NS		
End of Analysis	11/09/2023	Sample Condition	OK		
Report Release Date	12/09/2023	Sample Quantity	2007		
Sample Submitted By	QUESS CROP LIMITED MANIPAL UNIVERS	SITY	2009		
	VPO. Dehmi Kallan, Aimer Express Way, Jain	ur Paiaethan			
Test Report Issued to	QUESS CROP I IMITED MANUPAL LINU (CROCK)				
	VPO, Dehmi Kallan, Aimor Eversee Way, Isi				
Sampling Details	Lab Evolutive Markey Laboratory, Jaipur, Rajasthan				
	(II /OM/OSP/25) Dated of op page				
Environmental Condition	Room Temporature (20) As a 20/20/23.				
	(C): As per Standard, Relative Humidity (%): As per Standard				

TEST RESULTS

Reference to Protocol: - As per IFSA World Food Safety Guidelines Version 4, 2016.

MICROE	BIOLOGICAL EXAMINATIO	DN .		
S. No.	Test Parameters	Results	Limits (As per IFSA World Food Safety	Method of Tests
1.	Coliform Count	<10 cfu/a	Guidelines Version 4, 2016)	
2.	Escherichia coli	Absent/a		IS 5401 (Part 1): 2012
3.	Salmonella	Aboont/05-	<10 cfu/g	IS 5887(Part 1):1976
		Ausent/25g	Absent/25g	IS 5887(Part 3):1999

The above sample fit for human consumption as per IFSA world Food Safety Guidelines Version 4, 2016 as per Microbiological examination with respect to the above tests only.

End of Report

Duny Review By Divya Singh Sr. Microbiologist



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Vinit Maheshwari

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TEST REPORT

Sample Description	HAND SWAB (RAJESH PRASAR)	ULR No. :	TC1183723000002243F	
Report No.	JLOP230905005			
Received Date	05/09/2022	Batch No.	NA	
About of Analysis	05/03/2023	Mfg. Date	NA	
Start of Analysis	05/09/2023	Exp. Date	NA	
End of Analysis	11/09/2023	Sample Condition	OK	
Report Release Date	12/09/2023	Sample Quantity	10 ml Swah tubo	
Sample Submitted By	QUESS CROP LIMITED MANIPAL LINIVERSITY			
	VPO. Dehmi Kallan, Aimer Express Way, Jainur, Ba	acthan		
Test Report Issued to				
	VPO. Dehmi Kallan, Aimer Express Way, Jainur, Poinethan			
Sampling Details	Lab Executive Mr. Kamlesh Sharma on Abour Otto and the security of the securit			
	(JL/QM/QSP/25) Dated 05.09 2023	as per sampling plan and s	sampling procedure	
Environmental Condition	Room Temperature (°C): As per Standard, Relative Humidity (%): As per Standard			

TEST RESULTS

MICROBIOLOGICAL EXAMINATION

Chia	Toot Derematers		
5. NO.	rest Parameters	Results	Method of Tests
1.	Total Plate Count	140 1 10	
2	Californa Caunt	<10 cfu/Swab	JL/MS/STP/001
Ζ.	Collform Count	<10 cfu/Swab	IL MACICTD/004
3.	Yeast & Mould Count	10 5 10 1	JUNIS/31P/001
		<10 ctu/Swab	JL/MS/STP/001

End of Report

Mun **Review By** Divya Singh Sr. Microbiologist



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TEST REPORT

ULR No. : TC1183723000002244F

Sample Description	EQUIPMENT SWAB (LUNCH PLATE)	our no., i	01100/20000022441		
Report No.	JLOP230905006	Batch No.	NA		
Received Date	05/09/2023	Mfg Date	ΝΔ		
Start of Analysis	05/09/2023	Eve Date	IVA NA		
End of Analysis	11/09/2023	Exp. Date	NA		
Report Release Date	12/09/2023	Sample Condition	OK		
Sample Submitted By	OUESS CROP LIMITED MANUPAL UNIVERSITY 10 ml Swab tube				
	VPO. Dehmi Kallan, Aimer Express Way, Jaiour, Balasthan				
Test Report Issued to	QUESS CROP LIMITED MANIPAL UNIVERSITY				
	VPO. Dehmi Kallan, Ajmer Express Way, Jaipur, Rajasthan				
Sampling Details	Lab Executive Mr. Kamlesh Sharma on Above Site as per sampling plan and sampling procedure (JL/QM/QSP/25) Dated 05.09.2023.				
Environmental Condition	Room Temperature (°C): As per Standard, Relative	Humidity (%): As per Stand	Room Temperature (°C): As per Standard, Relative Humidity (%): As per Standard		

TEST RESULTS

MICRO	MICROBIOLOGICAL EXAMINATION						
S. No.	Test Parameters	Results	Method of Tests				
1.	Total Plate Count	<10 cfu/Swab	JL/MS/STP/001				
2.	Total Coliform Count	<10 cfu/Swab	JL/MS/STP/001				
3.	Yeast & Mould Count	<10 cfu/Swab	JL/MS/STP/001				

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TEST REPORT

Sample Description	STEAM PICE (COOKER)	ULR	No.: TC1183723000002238F		
Deport No.	U EDOGGOGOGO				
Report No.	JLFD230905014/A	Batch No.	NS		
Received Date	05/09/2023	Mfr Data	05/00/0000		
Start of Analysis	05/09/2023	mig. Date	05/09/2023		
End of Analysis	11/00/0000	Exp. Date	NS		
Ellu Ul Allalysis	11/09/2023	Sample Condition	OK		
Report Release Date	12/09/2023	Sample Quantity	200a		
Sample Submitted By	QUESS CROP LIMITED MANIPAL LINIX/EDSITY				
	VPO. Dehmi Kallan, Aimer Express Way, Jainur, Pajaethan				
Test Report Issued to	QUESS CROP LIMITED MANUDAL LININGED OFTIG				
	VPO. Dehmi Kallan, Ajmer Express Way, Jaipur, Rajasthan				
Sampling Details	Lab Executive Mr. Kamlesh Sharma on Above Site as per sampling plan and sampling procedure (JL/QM/QSP/25) Dated 05.09.2023.				
Environmental Condition	Room Temperature (°C): As per Standard, Relative Humidity (%): As per Standard				

TEST RESULTS

Reference to Protocol: - As per IFSA World Food Safety Guidelines Version 4, 2016.

MICROBIOLOGICAL EXAMINATION

5. NO.	lest Parameters	Results	Limits	Method of Tests
		· · .	(As per IFSA World Food Safety	
			Guidelines Version 4, 2016)	
1.	Coliform Count	<10 cfu/g	Not Specified	IS 5401 (Part 1): 2012
2.	Escherichia coli	Absent/a	<10 cfu/g	IC 5997/Dert 1):4070
3	Salmonalla	Abcont/25a	Abaatios	10 0007 (Fait 1). 1970
.	Gamonena	Absentizag	Absent/25g	IS 5887(Part 3):1999

The above sample fit for human consumption as per IFSA world Food Safety Guidelines Version 4, 2016 as per Microbiological examination with respect to the above tests only.

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TEST REPORT

Sample Description	STEAM RICE (COOKED)			
Report No.	JLFD230905014/B	Batch No.	NS	
Received Date	05/09/2023	Mfg. Date	05/09/2023	
Start of Analysis	05/09/2023	Exp. Date	NS	
End of Analysis	11/09/2023	Sample Condition	OK	
Report Release Date	12/09/2023	Sample Quantity	200g	
Sample Submitted By	QUESS CROP LIMITED MANIPAL UNIVERSITY			
	VPO. Dehmi Kallan, Ajmer Express Way, Jaipur, Rajasthan			
Test Report Issued to	QUESS CROP LIMITED MANIPAL UNIVERSITY			
	VPO. Dehmi Kallan, Ajmer Express Way, Jaipur, Rajasthan			
Sampling Details	Lab Executive Mr. Kamlesh Sharma on Above Site as per sampling plan and sampling procedure (JL/QM/QSP/25) Dated 05.09.2023.			
Environmental Condition	Room Temperature (°C): As per Standard, Relative Humidity (%): As per Standard			

TEST RESULTS

Reference to Protocol: - As per IFSA World Food Safety Guidelines Version 4, 2016.

CHEMIC	CAL EXAMINATION			
S. No.	Test Parameters	Results	Limits	Method of Tests
1.	Sodium Bicarbonate	1440.28 mg/100g	Not Specified	In-house STP

End of Report





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TEST REPORT

ULR No. : TC1183723000002239F

Sample Description	GULAB JAMUN			
Report No.	JLFD230905015	Batch No.	NS	
Received Date	05/09/2023	Mfg. Date	05/09/2023	
Start of Analysis	05/09/2023	Exp. Date	NS	
End of Analysis	11/09/2023	Sample Condition	OK	
Report Release Date	12/09/2023	Sample Quantity	200g	
Sample Submitted By	QUESS CROP LIMITED MANIPAL UNIVERSITY			
	VPO. Dehmi Kallan, Ajmer Express Way, Jaipur, Rajasthan			
Test Report Issued to	QUESS CROP LIMITED MANIPAL UNIVERSITY			
	VPO. Dehmi Kallan, Ajmer Express Way, Jaipur, Rajasthan			
Sampling Details	Lab Executive Mr. Kamlesh Sharma on Above Site as per sampling plan and sampling procedure			
	(JL/QM/QSP/25) Dated 05.09.2023.			
Environmental Condition	Room Temperature (°C): As per Standard, Relative Humidity (%): As per Standard			

TEST RESULTS

Reference to Protocol: - As per IFSA World Food Safety Guidelines Version 4, 2016.

MICROBIOLOGICAL EXAMINATION

monor							
S. No.	Test Parameters	Results	Limits (As per IFSA World Food Safety Guidelines Version 4, 2016)	Method of Tests			
1.	Coliform Count	<10 cfu/g	Not Specified	IS 5401 (Part 1): 2012			
2.	Escherichia coli	Absent/g	<10 cfu/g	IS 5887(Part 1):1976			
3.	Salmonella	Absent/25g	Absent/25g	IS 5887(Part 3):1999			

The above sample fit for human consumption as per IFSA world Food Safety Guidelines Version 4, 2016 as per Microbiological examination with respect to the above tests only.

End of Report





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Technical Manager- Microbiology

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TEST REPORT

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and the local division in which the	-	 And in case of the local data	and the party of t			-
	_	 TOFA	07020000	001	21	5
	-	1 1 1 1 1 1	8///		£ 1	

Sample Description	STEAM RICE (COOKED)		110	
Report No.	JLFD230107004	Batch No.	NS	
Received Date	07/01/2023	Mfg. Date	07.01.2023	
Start of Analysis	07/01/2023	Exp. Date	NS	
End of Analysis	12/01/2023	Sample Condition	OK	
Papart Palasse Date	12/01/2023	Sample Quantity	200g	
Sample Submitted By	QUESS CROP LIMITED MANIPAL UNIVERSITY			
	VPO. Dehmi Kallan, Ajmer Express	s Way, Jaipur, Rajasthan		
Test Report Issued to	QUESS CROP LIMITED MANIPA	LUNIVERSITY		
	VPO. Dehmi Kallan, Ajmer Express	s Way, Jaipur, Rajasthan		
Sampling Details	Lab Executive Mr. Kamlesh Sharma on Above Site as per sampling plan and sampling procedure (JL/QM/QSP/25) Dated 07.01.2023.			
Environmental Condition	Room Temperature (°C): As per Standard, Relative Humidity (%): As per Standard			

TEST RESULTS

Reference to Protocol: - As per IFSA World Food Safety Guidelines Version 4, 2016.

CHEMIC	AL EXAMINATION						
S. No.	Test Parameters	Results	Limits	Method of Tests			
1.	Sodium Bicarbonate	1268.40 mg/100g	Not Specified	In-house STP			
MICRO	MICROBIOLOGICAL EXAMINATION						
S. No.	Test Parameters	Results	Limits (As per IFSA World Food Safety Guidelines Version 4, 2016)	Method of Tests			
1	Coliform Count	<10 cfu/g	Not Specified	IS 5401 (Part 1): 2012, RA 2022			
2	Escherichia coli	Absent/g	<10 cfu/g	IS 5887(Part 1):1976, RA 2022			
3.	Salmonella	Absent/25g	Absent/25g	IS 5887(Part 3):1999, RA 2022			

The above sample fit for human consumption as per IFSA world Food Safety Guidelines Version 4, 2016 as per Microbiological examination with respect to the above tests only.

End of Report

Utsha Ghosh Microbiologist



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119, Solitaire Industrial Park, Phase-1", Dahmi Kallan Bagru, Jaipur - 303007 (Rajasthan)

Tel. : 0141-2390604 Email : jagdambalab4@gmail.com, jagdamba_lab@yahoo.com Web : jagdambalab.com

G OF WATER I FOODS I ALCOHOLIC DRINKS I DRUGS I HERBALS I COSMETICS I CHEMICALS I MINERALS I BUILDING MATERIAL I METALS **TEST REPORT**

ULR No. : TC518723000000122F **GULAB JAMUN** Sample Description NS Batch No. JLFD230107005 Report No. 07.01.2023 Mfg. Date 07/01/2023 **Received Date** NS Exp. Date 07/01/2023 Start of Analysis OK Sample Condition 12/01/2023 End of Analysis 200g Sample Quantity 12/01/2023 **Report Release Date** QUESS CROP LIMITED MANIPAL UNIVERSITY Sample Submitted By VPO. Dehmi Kallan, Ajmer Express Way, Jaipur, Rajasthan QUESS CROP LIMITED MANIPAL UNIVERSITY Test Report Issued to VPO. Dehmi Kallan, Ajmer Express Way, Jaipur, Rajasthan Lab Executive Mr. Kamlesh Sharma on Above Site as per sampling plan and sampling procedure Sampling Details (JL/QM/QSP/25) Dated 07.01.2023. Room Temperature (°C): As per Standard, Relative Humidity (%): As per Standard **Environmental Condition**

TEST RESULTS

Reference to Protocol: - As per IFSA World Food Safety Guidelines Version 4, 2016.

MICROE	BIOLOGICAL EXAMINATION	4		
S. No.	Test Parameters	Results	Limits (As per IFSA World Food Safety Guidelines Version 4, 2016)	Method or lests
4	Californ Count	<10 cfu/a	Not Specified	IS 5401 (Part 1): 2012, RA 2022
1.		Absentia	<10 cfu/g	IS 5887(Part 1):1976, RA 2022
2.	Escherichia coli	Ausening	Absent/250	IS 5887(Part 3):1999, RA 2022
3.	Salmonella	Absent/25g	Absentizog	

The above sample fit for human consumption as per IFSA world Food Safety Guidelines Version 4, 2016 as per Microbiological examination with respect to the above tests only.

End of Report

Utsha Ghosh Microbiologist

Authorized Signatory Vinit Maheshwari Technical Manager- Microbiology

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mple will be destroyed after one month (In case of nonperishable items only) the date of issue of test certificate unless otherwise specified.

Port refer to the Sample Submitted to us and not drawn by Jagdamba Laboratories unless mentioned otherwise.



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TEST REPORT

ULR No. : TC518723000000123F

Sample Description	SALAD				
Panort No.	JLFD230107006	Batch No.	NS		
Received Date	07/01/2023	Mfg. Date	07.01.2023		
Start of Analysis	07/01/2023	Exp. Date	NS		
End of Analysis	12/01/2023	Sample Condition	OK		
Report Release Date	12/01/2023	Sample Quantity	200g		
Sample Submitted By	QUESS CROP LIMITED MANIPAL UNIVERSITY				
Compression	VPO. Dehmi Kallan, Ajmer Express W	ay, Jaipur, Rajasthan			
Test Report Issued to	QUESS CROP LIMITED MANIPAL UI	NIVERSITY			
	VPO. Dehmi Kallan, Ajmer Express W	ay, Jaipur, Rajasthan			
Sampling Details	Lab Executive Mr. Kamlesh Sharma on Above Site as per sampling plan and sampling procedure				
	(JL/QM/QSP/25) Dated 07.01.2023.				
Environmental Condition	Room Temperature (°C): As per Standard, Relative Humidity (%): As per Standard				

TEST RESULTS

Reference to Protocol: - As per IFSA World Food Safety Guidelines Version 4, 2016.

MICPORIOLOGICAL EXAMINATION

STS
, RA 2022
RA 2022
RA 2022

The above sample fit for human consumption as per IFSA world Food Safety Guidelines Version 4, 2016 as per Microbiological examination with respect to the above tests only.

End of Report

22 **Review By** Utsha Ghosh Microbiologist

Authorized Signatory Vinit Maheshwari **Technical Manager- Microbiology**

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The bility of this Laboratory is limited to the invoice amount. This results listed refer only to the above sample and applicable parameter's Endorsement of products is neither inferred nor implied.

ample will be destroyed after one month (In case of nonperishable frems only) the date of issue of test certificate unless otherwise specified ^{Sport} refer to the C

^{oport} refer to the Sample Submitted to us and not drawn by Jagdamba Laboratories unless mentioned otherwise.



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TEST REPORT

ULR No. : TC518723000000124F

. Burninklan	CHICKEN CUPPY (COOKED)				
Sample Description	CHICKEN CORRT (COOKED)	Batab No	NS		
Report No.	JLFD230107007	Batch NO.	07.01.2023		
Received Date	07/01/2023	Mfg. Date	01.01.2020		
that of Analysis	07/01/2023	Exp. Date	NS		
and of Amphreis	12/01/2023	Sample Condition	OK		
End of Analysis	12/01/2022	Sample Qty. (Approx.)	2009		
Report Release Date					
Sample Submitted By	QUESS CROP LIMITED MANIPAL UNIVERSITY				
	VPO, Dehmi Kallan, Ajmer Express Way, Jaipur, Rajasthan				
Test Report Issued to	QUESS CROP LIMITED MANIPAL UNIVER	RSITY			
	VPO, Dehmi Kallan, Aimer Express Way, Jaipur, Rajasthan				
Compling Details	Lab Executive Mr. Kamlesh Sharma on Above Site as per sampling plan and sampling procedure				
Sampling Details	(JL/OM/QSP/25) Dated 07.01.2023.				
Environmental Condition	Room Temperature (°C): As per Standard, Relative Humidity (%): As per Standard				
Littletinetic	TEST PESIII TS				

Reference to Protocol: - As Per Food Safety & Standard Regulations, 2011.

S. No.	Test Parameters	Results	Limits (As per FSSR, 2011)	Method of Tests
1	Coliform Count	<10 cfu/g	Not Specified	IS 5401 (Part 1): 2012, RA 2022
2	Bacillus cereus	<10 cfu/g	Not Specified	IS 5887 (Part 6) : 2012, RA 2022
2.	Escherichia coli	Absent/g	<100 cfu/g	IS 5887(Part 1):1976, RA 2022
5.	Colmonollo	Absent/25g	Absent/25g	IS 5887(Part 3):1999, RA 2022
4.	Saimonella	71000118209		

The above sample fit for human consumption as per FSSAI, 2011 as per microbiological examination with respect to the above tests only.

End of Report

23 **Review By Utsha Ghosh** Microbiologist

OTE :



Authorized Signatory Vinit Maheshwari **Technical Manager- Microbiology**

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TEST REPORT

ULR No. : TC518723000000125F

CGA

Sample Description	MIX VEGETABLE				
Report No.	JLFD230107008	Batch No.	NS		
Received Date	07/01/2023	Mfg. Date	07.01.2023		
Start of Analysis	07/01/2023	Exp. Date	NS		
End of Analysis	12/01/2023	Sample Condition	OK		
Report Release Date	12/01/2023	Sample Quantity	200g		
Sample Submitted By	QUESS CROP LIMITED MANIPAL UNIVERSITY				
	VPO. Dehmi Kallan, Ajmer Express Way, Jair	our, Rajasthan			
Test Report Issued to	QUESS CROP LIMITED MANIPAL UNIVER	SITY			
	VPO. Dehmi Kallan, Ajmer Express Way, Jaipur, Rajasthan				
Sampling Details	Lab Executive Mr. Kamlesh Sharma on Above Site as per sampling plan and sampling procedure				
	(JL/QM/QSP/25) Dated 07.01.2023.				
Environmental Condition	Room Temperature (°C): As per Standard, Relative Humidity (%): As per Standard				

TEST RESULTS

Reference to Protocol: - As per IFSA World Food Safety Guidelines Version 4, 2016.

MICROBIOLOGICAL EXAMINATION

S. No.	Test Parameters	Results	Limits (As per IFSA World Food Safety Guidelines Version 4, 2016)	Method of Tests		
1.	Coliform Count	<10 cfu/g	Not Specified	IS 5401 (Part 1): 2012, RA 2022		
2.	Escherichia coli	Absent/g	<10 cfu/g	IS 5887(Part 1):1976, RA 2022		
3.	Salmonella	Absent/25g	Absent/25g	IS 5887(Part 3):1999, RA 2022		

The above sample fit for human consumption as per IFSA world Food Safety Guidelines Version 4, 2016 as per Microbiological examination with respect to the above tests only.

End of Report

Utsha Ghosh Microbiologist



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TEST REPORT

ULR No. : TC518723000000126F

Sample Description	HAND SWAB (CHEF RAKESH NEGI)				
Report No.	JLOP230107007	Batch No.	NA		
Received Date	07/01/2023	Mfg. Date	NA		
Start of Analysis	07/01/2023	Exp. Date	NA		
End of Analysis	12/01/2023	Sample Condition	OK		
Report Release Date	12/01/2023	Sample Quantity	10 ml Swab tube		
Sample Submitted By	QUESS CROP LIMITED MANIPAL UNIVERSITY				
	VPO. Dehmi Kallan, Ajmer Express Way, Jaipur, Rajasthan				
Test Report Issued to	QUESS CROP LIMITED MANIPAL UNIVERSITY				
	VPO. Dehmi Kallan, Ajmer Express Way, Jaipur, Rajasthan				
Sampling Details	Lab Executive Mr. Kamlesh Sharma on Above Site as per sampling plan and sampling procedure				
	(JL/QM/QSP/25) Dated 07.01.2023.				
Environmental Condition	Room Temperature (°C): As per Standard, Relative Humidity (%): As per Standard				

TEST RESULTS

MICROBIO	OGICAL	EXAMINATION
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S. No. Test Parameters Results		Results	Method of Tests	
1.	Total Plate Count	<10 cfu/Swab	JL/MS/STP/001	
2.	Total Coliform Count	<10 cfu/Swab	JL/MS/STP/001	
3.	Yeast & Mould Count	<10 cfu/Swab	JL/MS/STP/001	

End of Report

Rev B **Utsha Ghosh Microbiologist**



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TEST REPORT

ULR No. : TC518723000000127F

Comple Description	EQUIPMENT SWAB (LUNCH PLATE)				
Sample Decempt	JLOP230107008	Batch No.	NA		
Report No.	07/01/2023	Mfg Date	NA		
Received Date	07/01/2023	Fire Data	NIA		
Start of Analysis	07/01/2023	Exp. Date	NA		
End of Analysis	12/01/2023	Sample Condition	OK		
Paport Release Date	12/01/2023	Sample Quantity	10 ml Swab tube		
Sample Submitted By	QUESS CROP LIMITED MANIPAL UNIVERSITY				
Sample Culture	VPO. Dehmi Kallan, Ajmer Express Way,	Jaipur, Rajasthan			
Test Report Issued to	QUESS CROP LIMITED MANIPAL UNIV	ERSITY			
	VPO. Dehmi Kallan, Ajmer Express Way,	Jaipur, Rajasthan			
Sampling Details	Lab Executive Mr. Kamlesh Sharma on Above Site as per sampling plan and sampling procedure				
ounping	(JL/QM/QSP/25) Dated 07.01.2023.				
Environmental Condition	Room Temperature (°C): As per Standard, Relative Humidity (%): As per Standard				

TEST RESULTS

MICRORIOLOGICAL EXAMINATION

MICROL			
S. No. Test Parameters		Results	Method of Tests
1	Total Plate Count	<10 cfu/Swab	JL/MS/STP/001
2	Total Coliform Count	<10 cfu/Swab	JL/MS/STP/001
3.	Yeast & Mould Count	<10 cfu/Swab	JL/MS/STP/001
1			

End of Report

23 ew By Utsha Ghosh Microbiologist



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TEST REPORT

		ULR No. : TC518723000004642F		
STEAM RICE (COOKED)				
JLFD230412016	Batch No.	NS		
12/04/2023	Mfg. Date	12/04/2023		
12/04/2023	Exp. Date	NS		
17/04/2023	Sample Condition	OK		
18/04/2023	Sample Quantity	200g		
QUESS CROP LIMITED MANIPAL UNIVER	SITY			
VPO. Dehmi Kallan, Ajmer Express Way, Jai	our, Rajasthan			
QUESS CROP LIMITED MANIPAL UNIVER	SITY			
VPO. Dehmi Kallan, Ajmer Express Way, Jajpur, Rajasthan				
Lab Executive Mr. Kamlesh Sharma on Above Site as per sampling plan and sampling procedure				
(JL/QM/QSP/25) Dated 12.04.2023.				
ndition Room Temperature (°C): As per Standard, Relative Humidity (%): As per Standard				
	STEAM RICE (COOKED) JLFD230412016 12/04/2023 12/04/2023 17/04/2023 QUESS CROP LIMITED MANIPAL UNIVER VPO. Dehmi Kallan, Ajmer Express Way, Jaij QUESS CROP LIMITED MANIPAL UNIVER VPO. Dehmi Kallan, Ajmer Express Way, Jaij Lab Executive Mr. Kamlesh Sharma on Abov (JL/QM/QSP/25) Dated 12.04.2023. Room Temperature (°C): As per Standard, R	STEAM RICE (COOKED) JLFD230412016 Batch No. 12/04/2023 Mfg. Date 12/04/2023 Exp. Date 17/04/2023 Sample Condition 18/04/2023 Sample Quantity QUESS CROP LIMITED MANIPAL UNIVERSITY VPO. Dehmi Kallan, Ajmer Express Way, Jaipur, Rajasthan QUESS CROP LIMITED MANIPAL UNIVERSITY VPO. Dehmi Kallan, Ajmer Express Way, Jaipur, Rajasthan Lab Executive Mr. Kamlesh Sharma on Above Site as per sampling (JL/QM/QSP/25) Dated 12.04.2023. Room Temperature (°C): As per Standard, Relative Humidity (%): J		

TEST RESULTS

Reference to Protocol: - As per IFSA World Food Safety Guidelines Version 4, 2016.

CHEMICAL EXAMINATION

S. No.	Test Parameters	Results	Limits	Method of Tests		
1.	Sodium Bicarbonate	1412.24 mg/100g	Not Specified	In-house STP		
MICRO	BIOLOGICAL EXAMINATION					
S. No.	Test Parameters	Results	Limits	Method of Tests		
			(As per IFSA World Food Safety Guidelines Version 4, 2016)			
1.	Coliform Count	<10 cfu/g	Not Specified	IS 5401 (Part 1): 2012, RA 2022		
2.	Escherichia coli	Absent/g	<10 cfu/g	IS 5887(Part 1):1976, RA 2022		
3.	Salmonella	Absent/25g	Absent/25g	IS 5887(Part 3):1999, RA 2022		

The above sample fit for human consumption as per IFSA world Food Safety Guidelines Version 4, 2016 as per Microbiological examination with respect to the above tests only.

End of Report

8104 23 **Review By Divya Singh** Sr. Microbiologist



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TEST REPORT

ULR No. : TC518723000004644F

Sample Description	GREEN SALAD			
Report No.	JLFD230412016	Batch No.	NS	
Received Date	12/04/2023	Mfg. Date	12/04/2023	
Start of Analysis	12/04/2023	Exp. Date	NS	
End of Analysis	17/04/2023	Sample Condition	OK	
Report Release Date	18/04/2023	Sample Quantity	200g	
Sample Submitted By	QUESS CROP LIMITED MANIPAL UNIVER	SITY		
	VPO. Dehmi Kallan, Ajmer Express Way, Jai	pur, Rajasthan		
Test Report Issued to	QUESS CROP LIMITED MANIPAL UNIVER	SITY		
	VPO. Dehmi Kallan, Ajmer Express Way, Jai	pur, Rajasthan		
Sampling Details	Lab Executive Mr. Kamlesh Sharma on Above Site as per sampling plan and sampling procedure			
Environmental Condition	(JL/QM/QSP/25) Dated 12.04.2023. Room Temperature (°C): As per Standard, Relative Humidity (%): As per Standard			
Environmental Condition	Toom Temperature (0). As per otaliadite, (

TEST RESULTS

Reference to Protocol: - As per IFSA World Food Safety Guidelines Version 4, 2016.

MICROE	MICROBIOLOGICAL EXAMINATION						
S. No.	Test Parameters	Results	Limits (As per IFSA World Food Safety Guidelines Version 4, 2016)	Method of Tests			
1.	Total Plate Count	363 cfu/g	<1000000 cfu/g	IS 5402 : 2012			
2.	Coliform Count	<10 cfu/g	Not Specified	IS 5401 (Part 1): 2012, RA 2022			
3.	Escherichia coli	Absent/g	<10 cfu/g	IS 5887(Part 1):1976, RA 2022			

The above sample fit for human consumption as per IFSA world Food Safety Guidelines Version 4, 2016 as per Microbiological examination with respect to the above tests only.

End of Report

18104123 **Review By** Divya Singh Sr. Microbiologist

LAP

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TEST REPORT

ULR No. : TC518723000004644F

Sample Description	CHICKEN CURRY (COOKED)				
Report No.	JLFD230412018	Batch No.	NS		
Received Date	12/04/2023	Mfg. Date	12/04/2023		
Start of Analysis	12/04/2023	Exp. Date	NS		
End of Analysis	17/04/2023	Sample Condition	OK		
Report Release Date	18/04/2023	Sample Qty. (Approx.)	200g		
Sample Submitted By	QUESS CROP LIMITED MANIPAL UNIVER	RSITY			
	VPO. Dehmi Kallan, Ajmer Express Way, Ja	ipur, Rajasthan			
Test Report Issued to	QUESS CROP LIMITED MANIPAL UNIVER	RSITY			
	VPO. Dehmi Kallan, Ajmer Express Way, Ja	ipur, Rajasthan			
Sampling Details	Sampling Details Lab Executive Mr. Kamlesh Sharma on Above Site as per sampling plan and sampling procedure				
(JL/QM/QSP/25) Dated 12.04.2023.					
Environmental Condition Room Temperature (°C): As per Standard, Relative Humidity (%): As per Standard					
	TEST RESULTS				

Reference to Protocol: - As Per Food Safety & Standard Regulations, 2011.

S. No.	Test Parameters	Results	Limits	Method of Tests
			(AS per FOON, 2011)	
1.	Coliform Count	<10 cfu/g	Not Specified	IS 5401 (Part 1): 2012, RA 2022
2.	Bacillus cereus	<10 cfu/g	Not Specified	IS 5887 (Part 6) : 2012, RA 2022
3.	Escherichia coli	Absent/g	<100 cfu/g	IS 5887(Part 1):1976, RA 2022
4.	Salmonella	Absent/25g	Absent/25g	IS 5887(Part 3):1999, RA 2022

The above sample fit for human consumption as per FSSAI, 2011 as per microbiological examination with respect to the above tests only.

End of Report

18104-123 **Review By** Divya Singh Sr. Microbiologist

LAU

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TEST REPORT

ULR No. : TC518723000004645F

SAMBHAR VEGETABLE				
LFD230412019	Batch No.	NS		
2/04/2023	Mfg. Date	12/04/2023		
2/04/2023	Exp. Date	NS		
7/04/2023	Sample Condition	ОК		
8/04/2023	Sample Quantity	200g		
QUESS CROP LIMITED MANIPAL UNIVERS	SITY			
VPO. Dehmi Kallan, Ajmer Express Way, Jaipur, Rajasthan				
QUESS CROP LIMITED MANIPAL UNIVERS	SITY			
VPO. Dehmi Kallan, Ajmer Express Way, Jaipur, Rajasthan				
Lab Executive Mr. Kamlesh Sharma on Above Site as per sampling plan and sampling procedure				
(JL/QM/QSP/25) Dated 12.04.2023.				
Room Temperature (°C): As per Standard, Relative Humidity (%): As per Standard				
	AMBHAR VEGETABLE LFD230412019 2/04/2023 2/04/2023 7/04/2023 8/04/2023 EVESS CROP LIMITED MANIPAL UNIVERS PO. Dehmi Kallan, Ajmer Express Way, Jaip EVESS CROP LIMITED MANIPAL UNIVERS PO. Dehmi Kallan, Ajmer Express Way, Jaip ab Executive Mr. Kamlesh Sharma on Above JL/QM/QSP/25) Dated 12.04.2023. Isoom Temperature (°C): As per Standard, Re	AMBHAR VEGETABLE LFD230412019 Batch No. 2/04/2023 Mfg. Date 2/04/2023 Exp. Date 7/04/2023 Sample Condition 8/04/2023 Sample Quantity IUESS CROP LIMITED MANIPAL UNIVERSITY PO. Dehmi Kallan, Ajmer Express Way, Jaipur, Rajasthan IUESS CROP LIMITED MANIPAL UNIVERSITY PO. Dehmi Kallan, Ajmer Express Way, Jaipur, Rajasthan IUESS CROP LIMITED MANIPAL UNIVERSITY PO. Dehmi Kallan, Ajmer Express Way, Jaipur, Rajasthan IUESS CROP LIMITED MANIPAL UNIVERSITY PO. Dehmi Kallan, Ajmer Express Way, Jaipur, Rajasthan IUESS CROP LIMITED MANIPAL UNIVERSITY PO. Dehmi Kallan, Ajmer Express Way, Jaipur, Rajasthan Bub Executive Mr. Kamlesh Sharma on Above Site as per sampling plan JL/QM/QSP/25) Dated 12.04.2023. Room Temperature (°C): As per Standard, Relative Humidity (%): As per Standard, Relative Humidity (%): As per		

TEST RESULTS

Reference to Protocol: - As per IFSA World Food Safety Guidelines Version 4, 2016.

MICROBIOLOGICAL EXAMINATION

S. No.	Test Parameters	Results	Limits (As per IFSA World Food Safety Guidelines Version 4, 2016)	Method of Tests		
1.	Coliform Count	<10 cfu/g	Not Specified	IS 5401 (Part 1): 2012, RA 2022		
2.	Escherichia coli	Absent/g	<10 cfu/g	IS 5887(Part 1):1976, RA 2022		
3.	Salmonella	Absent/25g	Absent/25g	IS 5887(Part 3):1999, RA 2022		

The above sample fit for human consumption as per IFSA world Food Safety Guidelines Version 4, 2016 as per Microbiological examination with respect to the above tests only.

End of Report

118/04/23 **Review By Divya Singh** Sr. Microbiologist

Authorized Signatory Vinit Maheshwari Technical Manager- Microbiology

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Tel. : 0141-2390604 Email : jagdambalab4@gmail.com, jagdamba_lab@yahoo.com Web : jagdambalab.com

GOF WATER I FOODS I ALCOHOLIC DRINKS I DRUGS I HERBALS I COSMETICS I CHEMICALS I MINERALS I BUILDING MATERIAL I METALS

TEST REPORT

ULR No.: TC518723000004646F

Sample Description	MOONG HALWA				
Report No.	JLFD230412020	Batch No.	NS		
Received Date	12/04/2023	Mfg. Date	12/04/2023		
Start of Analysis	12/04/2023	Exp. Date	NS		
End of Analysis	17/04/2023	Sample Condition	OK		
Report Release Date	18/04/2023	Sample Quantity	200g		
Sample Submitted By	QUESS CROP LIMITED MANIPAL UNIVER	SITY			
	VPO. Dehmi Kallan, Ajmer Express Way, Jai	our, Rajasthan			
Test Report Issued to	QUESS CROP LIMITED MANIPAL UNIVERSITY				
	VPO. Dehmi Kallan, Ajmer Express Way, Jaipur, Rajasthan				
Sampling Details	Lab Executive Mr. Kamlesh Sharma on Above Site as per sampling plan and sampling procedure				
	(JL/QM/QSP/25) Dated 12.04.2023.				
Environmental Condition	Room Temperature (°C): As per Standard, Relative Humidity (%): As per Standard				

TEST RESULTS

Reference to Protocol: - As per IFSA World Food Safety Guidelines Version 4, 2016.

MICROBIOLOGICAL EXAMINATION

milonor				
S. No.	Test Parameters	Results	Limits (As per IFSA World Food Safety Guidelines Version 4, 2016)	Method of Tests
1.	Coliform Count	<10 cfu/g	Not Specified	IS 5401 (Part 1): 2012, RA 2022
2	Escherichia coli	Absent/g	<10 cfu/g	IS 5887(Part 1):1976, RA 2022
3.	Salmonella	Absent/25g	Absent/25g	IS 5887(Part 3):1999, RA 2022
		-		

The above sample fit for human consumption as per IFSA world Food Safety Guidelines Version 4, 2016 as per Microbiological examination with respect to the above tests only.

End of Report

18104123 **Review By Divya Singh** Sr. Microbiologist

TE :

Authorized Signatory

Vinit Maheshwari Technical Manager- Microbiology

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TING OF WATER I FOODS | ALCOHOLIC DRINKS I DRUGS | HERBALS | COSMETICS | CHEMICALS | MINERALS | BUILDING MATERIAL | METALS

EST REPORT

ULR No. : TC518723000004647F

Sample Description	HAND SWAB (VINIT SIR JI)		ΝΛ			
Papart No.	JI OP230412011	Batch No.	NA			
Report No.	40/04/0002	Mfg. Date	NA			
Received Date	12/04/2023	Eve Date	NA			
Start of Analysis	12/04/2023	Exp. Date	OK			
End of Analysis	17/04/2023	Sample Condition				
End of Analysis	10/04/2022	Sample Quantity	10 ml Swab tube			
Report Release Date	18/04/2023					
Sample Submitted By	QUESS CROP LIMITED MANIPAL UNIVERSITY					
	VPO. Dehmi Kallan, Ajmer Express Way, Jaipur, I	s Way, Jaipur, Rajasthan				
Test Report Issued to	QUESS CROP LIMITED MANIPAL UNIVERSITY					
	VPO. Dehmi Kallan, Ajmer Express Way, Jaipur, Rajasthan					
Sampling Details	Lab Executive Mr. Kamlesh Sharma on Above Site as per sampling plan and sampling procedure					
Sampling Detaile	(JL/QM/QSP/25) Dated 12.04.2023.		l l			
Environmental Condition	Room Temperature (°C): As per Standard, Relativ	ve Humidity (%): As per Sta	ndard			

TEST RESULTS

MICROE	BIOLOGICAL EXAMINATION		
S No	Test Parameters	Results	Method of lests
0.100.		10 (10 -1	IL/MS/STP/001
1.	Total Plate Count	<10 cfu/Swab	
2	Ecohorichia coli	Absent/Swab	JL/MS/STP/001
Ζ.	Escherichia coli	his up	IL/MS/STP/001
3.	Salmonella	Absent/Swab	6Emolen / con

End of Report

Aue 9104123 **Review By Divya Singh** Sr. Microbiologist

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wits listed refer only to the above sample and applicable parameter's Endorsement of products is neither inferred nor implied. will be destroyed after one month (In case of nonperishable items only) the date of issue of test certificate unless otherwise specified. refer to the Sample Submitted to us and not drawn by Jagdamba Laboratories unless mentioned otherwise.

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TEST REPORT

ULR No. : TC518723000004648F

Sample Description	EQUIPMENT SWAB (LUNCH PLATE)						
Report No.	JLOP230412012	Batch No.	NA				
Received Date	12/04/2023	Mfg. Date	NA				
Start of Analysis	12/04/2023	Exp. Date	NA				
End of Analysis	17/04/2023	Sample Condition	OK				
Report Release Date	18/04/2023	Sample Quantity	10 ml Swab tube				
Sample Submitted By	QUESS CROP LIMITED MANIPAL UNIVERSITY						
	VPO. Dehmi Kallan, Ajmer Express Way, Jaipur, Ra	ajasthan					
Test Report Issued to	QUESS CROP LIMITED MANIPAL UNIVERSITY						
	VPO. Dehmi Kallan, Ajmer Express Way, Jaipur, Ra	ajasthan					
Sampling Details	Lab Executive Mr. Kamlesh Sharma on Above Site	Lab Executive Mr. Kamlesh Sharma on Above Site as per sampling plan and sampling procedure					
	(JL/QM/QSP/25) Dated 12.04.2023.	, , , ,					
Environmental Condition	Room Temperature (°C): As per Standard, Relative	Humidity (%): As per Standa	ard				

TEST RESULTS

MICRUE	SIOLOGICAL EXAMINATION		
S. No.	Test Parameters	Results	Method of Tests
1.	Total Plate Count	<10 cfu/Swab	JL/MS/STP/001
2.	Total Coliform Count	<10 cfu/Swab	JL/MS/STP/001
3.	Yeast & Mould Count	<10 cfu/Swab	JL/MS/STP/001

End of Report

18104123 Review By **Divya Singh** Sr. Microbiologist

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with a true caperatory is limited to the invoice amount. Wits listed refer only to the above sample and applicable parameter's Endorsement of products is neither inferred nor implied. will be destroyed after one month (In case of nonperishable items only) the date of issue of test certificate unlass otherwise specified. efer to the Sample Submitted to us and not drawn by Jagdamba Laboratories unless mentioned otherwise.

Chef		THEE ON WHEEL						Loc. No.	COM/000
Wheels	· `		5					ISS. Date	01.02.27
								Rev. No.	0
		CHOPPING	BOARDS	& KNIVES	SANITIZA	TION RECO	ORD		
Date (dd/mm)	Time AM	Equipment number	Conc. (ppm)	Contact time	Time pm	Equipment number	Conc. (ppm)	Contact time	Sigr
01-09-23	4. Am	3. Pics	10ppm	3minu)I.Am	8 Pist	10 ppm	2 mint	F
02-09-23	Lipm	8 Pics	IDDPM	Inint	LIDM	2 Pics	INDON	3 mint	(m
03-09-23	InAn	2 pics	LADPAD	2 minut	11. Ar	6 Pice	IDPPM	zmint	G
04-09-23	4.on	10 piss	lodom	2 minut	11. An	RDiss	IOPPM	2 mint	to
05-09-23	Lipm	gpiss	10 ppm	2 nind	11.00	2 nics	IGDOW	3mint	E
06-09-23	yiAm	8 piss	10 ppm	Manul	- 11'Am	9 Piss	IOPPM	2 mint	¢
07-09-23	YIAM	OPISS	10 PPM	2 mint	110m	6 Piss	luppur	zmint	K
08-09-23	yipm	10 Pisc	1000m	Brint	11:pm	70155	IUPPM	smint	a
09-09-23	1. Aw	9 Diss	LOPPN	amint	TILAN	80,35	10PPm	2 mint	-
10-09-23	4:Am	lopiss	lopom	Smin	TIAM	70.85	10ppm	3mint	- A
11-09-23	4.Am	goiss	loppm	2mint	- Ir Am	8 Diss	10ppm	2 min	- F
12-09-23	4.Am	10 Pics	IOPOM	smint	11.Am	goise	IOPPN	mint	m
13-09-23	4 Am	goiss	IOPPN	emint	11.Am	8 Piss	ISPPW	2 mint	R
14-09-23	y An	lopics	INPPN	3 mint	-11.Am	7Piss	IOPPN	Injut	F
15-09-23	4.Am	a piss	IOPPW	12mint	- 11.An	8Diss	loppon	2 nint	P
16-09-23	yiAn	10 Pics	IOPPW	3mint	- 11:An	12ige	10PP-	zmint	-m
17-09-23	4.Am	8 Piss	IBPPM	2 mine	-11.An	70:00	IDPA	n 3mint	P
18-09-23	YAM	TPISS	1000m	3 mint	11.AM	8piss	10pm	2 mint	Cm
19-09-23	4.AM	8 piss	IOPPM	2mint	-11.Am	gpiss	10ppm	2 3mint	6
20-09-23	4.AM	9 D:55	ioppm	3mint	TIAM	8Piss	LOPPN	2 mint	m
21-09-23	4.Am	8 piss	IOPPN	2mint	- 11. Am	7 Piss	loppn	3mint	P
22-09-23	y.AM	IGPISS	IOPPM	3mm	-11.An	GPiss	10Ppm	zmint	M
23-09-23	MiAn	- gpiss	10PPN	unint	11. Fm	8 Piss	10pp-	- unind	- 02
24-09-23	4.Am	8. Piss	10pp	2min	- 11-A	- 7Piss	10ppu	- 3mint	En ser
25-09-23	MiAn	Spiss	10PPm	unint	-11-A-	8 Piss	10ppm	2mint	n
26-09-23	J.An	8 Pisz	10 PPM	3 mint	11.An	gpis	10PPn	Znint	T ON
27-09-23	4.An	9 piss	IOPPW	Imin	-11.An	8 Piss	10ppn	smint	- qu
28-09-23	4 Am	8'Piss	loppm	3mint	11:Am	9 Piss	10Ppm	unint	G
29-09-23	4. Am	2 sig e.	10ppm	2mint	11.AM	TOPics	10PPn	Snimt	- (n)
30-09-23	4 Am	10 Prices	10pm	Amit	(1. Am	10 Pairs	lopi	(omint	
OTE: Dilution =	2 tablets in 15	liters of water (100ppm) 8	& Contact time	e= 5 minutes					

-

Chico								Doc. No.	COW/PRO/CE
on		CHEF ON WHEEI	S					Iss. Date	01-02-22
Wheels	1							Rev. No.	0
Date	Time AM	Equipment number	Conc.	Contact		Equipment	Conc.	Contact time	Sign
(dd/mm)			(ppm)	time	Time pm	number	(ppm)		
01-08-23	Lipn	lo. piss	10 Ppm	mint	11. 97	32'P'E).PPm	Jonint	\sim
02-08-23	4.pm	22ige	10 Ppm	zminh	11.A~	80:55	JODDA	2 mint	an
03-08-23	Lipm	8 Piss	loppm	2 mint	71.AN	Joiss	loppm	3 minut	$\langle \rangle$
04-08-23	U.Am	SPISS	10ppm	Loning	11.Am	6 piss	oppm	ymint	R
05-08-23	4.Am	10 Piss	IOPPU	. Zourd	- 11.An	JPISS	loppn	- mint-	- 62
06-08-23	4.AM	9 piss	Isppm	umint	- 11. Am	22-198	IOPPM	Smint	
07-08-23	4.Am	BRISS	loppm	3 minut	-11-An	Piss	[PPm	2 mint	R
08-08-23	4.Am	10 piss	luppm	umit	-11.pm	90,25	10.ppm	zinint	m
09-08-23	U.Am	Spiss	loppm	Brint	11.000	80:00	10 ppm	2 minut	W
10-08-23	4.Am	10 Piss	16ppm	2 mint	- II:An	20:45	10 ppm	Zmint	-Q
11-08-23	YAM	11. P. SS	10ppm	3mint-	11.20	8 Dir	10ppm	2min-	X
12-08-23	4.Am	lo Diss	loppm	2 mind	11.An	9 Dig	10 ppm	umint	R
13-08-23	11:Am	g Diss	10 Ppm	zmint	11.Am	8051	1000m	Zmint	(The
14-08-23	h.Am	11 Piss	loppm	2mint	11. Ann	Spiss	ICPPM	2 mint	m
15-08-23	UAM	2 g piss	10ppm	3 mint	11:Am	F.Piss	lepon	3 mint	(m-
16-08-23	LiAn	10 Piss	10 pm	2 mint	11.12	7 Pics	10ppm	2 minut	0
17-08-23	YAM	lopiss	1000m	3 mint	-11. An	6 pill) oppn	Zmind	(m)
18-08-23	Lipon	goiss	IOPPM	2 mint	11.An	8 Piss	10ppm	2 mint	n
19-08-23	MAN	ICPISS	10ppm	3 mint	NAVI	9 Pils	10 ppm	zmint	a
20-08-23	4.Am	8 Piss	LOPPM	2mint	11. Avin	8 Piss	10 ppm	amint	~
21-08-23	MAN	gp:SS	joppm	3 mint	11. AM	9 piss	10 ppm	smint	
22-08-23	4.AM	lopiss	loppm	2 mint	11.AN	8 Piss	10ppm	2 David	2
23-08-23	North	Spiss	10ppm	3 minut	11.An	9 piss	IMPPNT	Incint	NO
24-08-23	MAN	lopiss	10 ppm	2 minut	11.An	87:5	10 DDan	- min	2
25-08-23	y An	11. Piss	10 Ppu	yminat	-11.A~	21.9 2	10PDm.	2 mint	Ro
26-08-23	MiAn	9 Piss	10 ppm	3 mint	11. Ann	80.3	MARAN	2 Minut	P
27-08-23	4.AM	IPPISS	LEPOM	2 mint	IN.Der	20155	Landm	3000	R
28-08-23	4.au	A Piss	10pm -	3 minut	Inaug	APics	DODNo	2000	80
29-08-23	4.Am	8 Piss	10ppm	2minut	11.00	ZDiss	InDom	Emple	0
30-08-23	yipm	9. Piss	10PPM :	Emine	ILAN	20,11	10 PAr	Shim	A
31/2/23	war	10 Piss	IBPOr.	Brink	110-	6 pice 1	1600m	ZAMAN	R
NOTE: Dilution =2 t	ablets in 15 lite	ers of water (100ppm) &	Contact time=	5 minutes			Y Y Y Y		
Verified by:		(rooppin) a	gentaet time=	s minutes					

- Alexander		rood sample Retention Re					DISCROPY	VEDIEIER	0.81
	DATE	menu items	sample in time	DONE BY	DISCARD DATE	DISCARD TIME	DISCRUBY	VERIFIEL	DBI
and and a	01-09-23	Poori Bhari Sheery Egg Banang	7.AM	A C	03-09-23	logm	(me		
	02-09-23	Palan paratha waln't multer Polha	7.15pm	and	04-09-23	LS-AM	(M		
	03-09-23	chang Bhotury commistances Egg	7.15Am	- Car	05-09-23	10. Pm	and		_
	04-09-23	medu vada camper semiyavena chut	21 7,15Dm	n and	06-09-23	10. fm	And you		
	05-09-23	Alopporthing Pontha Corenflares	7-10AN	(h)	07-09-23	10-Aw	and the		
	06-09-23	Semira upma Rawa id (i chumey	7.JOAM	-m-	08-09-23	It-Am	P		4
	07-09-23	Popri Bhati coroutchat	7.10AM2	And -	09-09-23	10-Am	P	//	<u> </u>
	08-09-23	Pastha Rad Even musala outas Frag	L-7-15AM	m	10-09-23	10.Am	E	-	<u> </u>
	09-09-23	dal Partha and Cover flau	7.15Am	m	11-09-23	10.Am	m	X	\perp
	10-09-23	mong Bhatura corenflaks	7-10Am	m	12-09-23	10. Ant	P		r
-	11-09-23	medu Loda Sambar Semira Upma Cur	1mi 7.10A	n pa	13-09-23	10.Am	m		
	12-09-23	Alore Pro2 hing Pantha Corrent/wee	5 7.10AV	m.	14-09-23	10 Aup	m		
	13-09-23	weg Puha makala Dalila chuterx:	n 7.10 Au	m	15-09-23	10.An	n		
	14-09-23	Porri Bhairi sheera	7.10Am	R	16-09-23	10.Am	E	\leq	
	15-09-23	Palan Partha whit mutter schart	7.10An	m	17-09-23	IDAM	m	-	
	16-09-23	Somila Upma Sampon Down idlichu	the 7 dage	m	18-09-23	10. Au	m		
	17-09-23	chong Rhutna comentlikes 1-99	7.10A	n Pr	19-09-23	10.An	m		
	18-09-23	masal worth pour masala Daliza churry	7.10 Am	and a	20-09-23	10. Am	F		
	19-09-23	Acreptas Pontha curd correct/akes	7.10 Am	P	21-09-23	10.Am	P.)
	20-09-23	medu Vada Sambar Rawgu Pina	J.Am	æ	22-09-23	10.AM	(m		
	21-09-23	Poon' Bharisheerg	, J. Am	P	23-09-23	10.AM	(m)		
	22-09-23	ver Poha masala autas tomato chutayan	TILOAN	P	24-09-23	10.Am	P		
	23-09-23	Delin Porcetha Alon Bhasi comen flaw	2 7.10Am	P	25-09-23	ISAM	R		V
	24-09-23	chang Bhating Coven Hakel	7.10A	m	26-09-23	10. Ant	. m		
	25-09-23	medu vada Sambar Paha chufmen	17.6A	n m	27-09-23	lofm	m		
	26-09-23	Alogo Black hing pantha Cured arrest W	as 7 ust		28-09-23	10-An	R		
	27-09-23	Serviva upmy Sambar Pawa Idli	2.1000	m	29-09-23	10 Am	m		
	28-09-23	Porni Bharri sheara	7. DAM	(m)	30-09-23	NAM	RD		
	29-09-23	Va Poha masala Saliza Fag	7.102	P	01-10-23	10.AV	m		T
	30-09-23	dal Partha curd Corren Flaves.	7.10 Au	m	02-10-23	10.Au	n		Γ

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	QUESS CORP LIMITED	
Food	Sample Retention Record	Г

DATE	menu items	sample in time	DONE BY	DISCARD DATE	DISCARD TIME	DISCRD BY	VERIFIED BY
01-09-23	dal Tadky Soya Chap Rice Salad	11. AM	(M)	03-09-23	3.DM	m	Δ
02-09-23	wahit changues hot & such Frid Rice	lign	Ē	04-09-23	ZPM	m	
03-09-23	dut For Alon Annetsri Wadi Rice Salad	11.72	m	05-09-23	B.PM	P	
04-09-23	Balcumagandar Bindi masala pice	11. Am	and	06-09-23	3.PM	(m)	
05-09-23	Kadi Parkoda A Cov Capsing Rice salad	11:Am	m.	07-09-23	3.Pm	P	XY.
06-09-23	mix day Tadis gob mutter Rice Salad	11: An	P	08-09-23	3.00	P	01
07-09-23	Rapma masata kadi Soya been Rice sulad	non	R	09-09-23	3.Pm	(M)	\square
08-09-23	Ver Bir Sambar Dusa Co. chumi Rahijasala	111. An	R	10-09-23	3.Pm	m	
09-09-23	Letta mittg kadu chara masala Bice Sulad	11.AM	R	11-09-23	3.Pm	m	
10-09-23	Punjabidal Sevtamatri Rice Salad	11.Am	m	12-09-23	3.pr	æ	
11-09-23	dal Tadika Home Styal Alongobi TPENORice	2 li.Am	R	13-09-23	J.Pm	m	
12-09-23	Ranna malala Turniki Sabri Rice Salad	11. Am	w	14-09-23	2. Pm	m	XII
13-09-23	dal Tadka Palak Koffa Curry Ric Salad	11. An	m	15-09-23	2.0.0	m	
14-09-23	Wardi Pakeda Rice Salar Alono Reams	11.Am	m	16-09-23	ZPM	m	CA
15-09-23	Punthidal Rindimolala Rice Salad	11.Am	The	17-09-23	7. Pm	A	1
16-09-23	Chang masalaAlor Tomatripice salad	11.An	an	18-09-23	7. Pm	(Incl.	
17-09-23	Contamator Torondal Morning Dice sugar	11. Am	P	19-09-23	J. Pim	and	D
18-09-23	dal Tadka Bindi Magala Dice seena Salad	11. Ann	an	20-09-23	3.DM	P	X
19-09-23	Hadi Pakeda Aloo Mawali Rice Salad	11:Am	(m)	21-09-23	Z.pm	P	XI
20-09-23	Balchurgd del Com Palak pice Salad	11.An	R	22-09-23	7.Dm	R	120
21-09-23	Rarma masala Cabbage mater Ricesula	lliAm	Ē	23-09-23	ZIPM	R	10
22-09-23	Vez Biranichanatmascula Pastha Patha	lipm	R	24-09-23	Sipmi	R	1
23-09-23	Katta mitta katu cuana pomi Rice salad	nAm	m	25-09-23	3.PM	m	
24-09-23	Punjabidal gata Cumy Rice Silan	11 An	R	26-09-23	s. Am	F	
25-09-23	Bindi masula Balck Mason doul Rice Se	la n.B.	N	27-09-23	ZPM	m	
26-09-23	12 adi Padoda a los chamalini Lubric	past. An	(no	28-09-23	7AM	w	
27-09-23	hat Tad ka appimutter Rice Swlad	In Am	(rs	29-09-23	2 Dr	m	DA
28-09-23	Rama malana kadaj Sova been Rices	and hit	100	30-09-23	ZPM	in	15
29-09-23	Alow Ralchelsong ver marchenin Frid D.	e III An	· mo	01-10-23	ZIDAA	a	
30-09-23	Chasa mosala katta mitta kadu pirec	Ind lun	1 M	02-10-23	ZIPM		
	CALL AND AND AND A THE AND ALLOS	Maci I Th			Sith	ave	
L							

	QUESS CORP LIMITED						
	Food Sample Retention Re	cord					
DATE	menu items	sample in time	DONE BY	DISCARD DATE	DISCARD TIME	DISCRD BY	VERIFIED BY
01-09-23	White Sause Pactura	57.pm	()-2	04-09-23	2.pm	Cm	
02-09-23	Vel PUEF	Blopm	(P)	05-09-23	7-pm	Chin	
02-09-23	Kachoni Chauther	BISPM	(P)	06-09-23	2.pm	(m	
4-09-23	mix 1/09 Pallone	Slopm	P	07-09-23	7-pm	der-	
5-09-23	nutter kincha	5.10pm	an	08-09-23	7.pm	Chi	
6-09-23	paged i	5.10 pm	(m)	09-09-23	J.pm	an	
7-09-23	Thaget	5-15 pm	de la	10-09-23	7.pm	(Cr	
8-09-23	Kachan	STOPM	(PD)	11-09-23	7.pm	and	
9-09-23	Barba UPma chutney	Silopm	(m)	12-09-23	J.PM	an	
0-09-23	malaidti	STOPM	an	13-09-23	2.pm	der	
1-09-23	ma991	Stopm	an	14-09-23	J.pm	an	-
2-09-23	MAN PUFF	m.pm	P	15-09-23	7.PM	ex	
3-09-23	Pacian Sales	D. PM		16-09-23	nipm	(C)	
4-09-23	Pani Pari	mq.r.	R	17-09-23	7.pm	EV	
5-09-23	indance Style Parha	F.J. pm	an	18-09-23	7.pm	(P)	
6-09-23	Banana Cake	5.7.pm	m	19-09-23	7.Pm	(P)	
7-09-23	Hach and	S.J. Pm	(PC)	20-09-23	J.DM	an	
8-09-23	mix ver Pakone chute	NGJ.PM	and -	21-09-23	J.pm	(M)	
9-09-23	Covain inna civiner	SJ PM	m	22-09-23	Jipm	æ	
0-09-23	Seculation	SOPM	(m)	23-09-23	7pm	Ro	
1-09-23	D/coo 12 model	5.7.PM	(m)	24-09-23	Jipm	P	
2-09-23	Bho Puri	S.J. PM	M	25-09-23	2pm	and and	
3-09-23	LICH PIET	ST. PM	A	26-09-23	Dipon	(m	
4-09-23	14 achimi chutmer	G.P.PM	R	27-09-23	Dipa	1 m	
5-09-23	Raddain David Sauce	ST. 10pm	m	28-09-23	7pm	M	
5-09-23	Pasty III Ager Syuss	52 loom	R	29-09-23	7.Pm	R	
7_09_22	Danie Dimi	CT'PM	(m)	30-09-23	J.PM	m	
0.00.22	Wardin and Chinland	(60.10m	no	01-10-23	5.pm	R	
00 22	Olog filling along by CN	1 Dilopn	N	02-10-23	7 PM	1 m	
9-09-23	17/012 FILMEN CARDEN NOT	C. PN	R	03-10-23	7.pm	R	
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18.

FOOD Sample Retention Record menuiters sample in time DOISCARD DATE DISCARD TIME DISCARD	
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22-09-23 Ling Ladipy 2 Pomeer providered & Hadina Tipen (24-09-23 10 pm) (23-09-23 dal making Rice Ling Rice Sular 7, pm) (25-09-23 10 pm) (24-09-23 10 pm) (24-09-23 Rama provider Alace Ling Rice Sular 7, pm) (25-09-23 10 pm) (
23-09-23 del Makhani Relak Volta cump Rice Sular 7. Pm m 25-09-23 10 Pm m 24-09-23 Rama American Aice Chaven FridRice Salad 7. Pm m 26-09-23 10 Pm m 25-09-23 Topor del mitte & Pamper Case Cump 7. Pm 27.09.23	
24-09-23 Rasma Prince Prid Rice Chicken Frid Rice Saved 7 Put (m 26-09-23 10 Put (m)	
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28-09-23 punphidal Aloro Morong Wadi Dice Salard 7 pm m 30-09-23 10 pm m	
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30-09-23 day makani zomplere malala Pyter 2. PM m 02-10-23 16 m	+
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GHSIS Good Host Spaces	Goo	odhc _{Ac}	ost s tivity -	spa - Hou	ces sekee	Pvt. Ltd.	Date : 15 Block : FC Checklist No	Zone : A1) : GHS/ HK 14
			Wat	ter C	oole	er(Monthly)		
Work Description	Floor	1	Zone 2	/ Wing 3	4	Name of HK Assistant	Name of HK Supervisor	Sign
Drain the water from cooler and tank to be cleaned with water from inside.		V	V			per		
2 Outside body cleaning	Gr	V	V			182	Devendra	Dam
3 Tap / Tray / Stand cleaning		V	\checkmark				30	
4 Pantry floor / drain cleaning		Y	V					
		T	Zone	/ Wing		Name of HK boys /	Name of HK	Sion
Work Description	Floor	1	2	3	4	ladies	Supervisor	Jigii
Water Cooler inside cleaning (after water clearance)		V	V		1	logh		
2 Outside body cleaning	4.4	V	V			Sonoro	Devenda	Drmd
3 Tap / Tray / Stand cleaning	1st	v	r					90
4 Pantry floor / drain cleaning		V	V					
		T	Zone	/ Wing		Name of HK boys /	Name of HK	Sign
Work Description	Floor	1	2	3	4	ladies	Supervisor	
Water Cooler inside cleaning (after water clearance)								
2 Outside body cleaning								
3 Tap / Tray / Stand cleaning	2nd							
			1					

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GHEIS Good Host Spaces Good Host Spaces Activity - Housekeeping		Date : 13/08/23 Block : FC Zone:	
		Water Cooler (Month	V)
r No Work Description	Floor	Zone / Wing	
Drain the water from cooler 1 and tank to be cleaned with water from inside.	x		Supervisor Sign
 2 Outside body cleaning 3 Tap / Tray / Stand cleaning 4 Pantry floor / drain cleaning 	Gr	v~ v~ v~ magu	
Sr No Work Description	Floor	Zone / Wing Name of HK boys	
 after water clearance) 2 Outside body cleaning 3 Tap / Tray / Stand cleaning 4 Pantry floor / drain cleaning 	1st	v v 1 Iadies v v 1 Symitra v v Soutozu v v Soutozu	Supervisor Sign W aft Ou
Sr No Work Description	Floor	Zone / Wing Name of HK boys /	Name of the Pan
2 Outside body cleaning Tap / Tray / Stand cleaning ntry floor / drain cleaning	2nd	A ladies	Supervisor Sign Wat after Outs Outs

DATE			BREAKFAST	17:30 to 9:30)			2
DISH TYPK	11-Sep-23	12-Sep-23	13-Sep-23	14-Sep-23	15-Sep-23		
	MONUMY	Tuesday	Wednesday	Thursday	FRIDAY	Saturday	17-Sep-23
Main- I	MEDU VADA	ALOO PYAZ HING PARATHA	νες ρόμα	POORI			Эшниду
	SAMBAR	CURD	MASALA DALIYA	BHAU	PLAIN PARATHA	SEVAIN UPMA	CHANA
Main-II	SEVAIN UPMA	CORN FLAKS		CHEEDA	WHITE MUTTER KI SUBJI	SAMBER	BHATURA
	COCONUT CHUTNEY		CHUTNEY	SHEEKA	CORN FLAKS	RAWAIDLLI	CORN FLAKS
BREAD	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD / WHOLE WHEAT	CHUTNEY	GREEN CHUTNEY
HOT Beverage	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA. COFFEE MILK	TEA COTTEE MULE WHEAT	PLAIN BREAD/ WHOLE WHEAT
	COLESLAW	POTATO CUCMBER	COLESLAW	POTATO CUCMBER	COLESLAW	COLER MILK	TEA, COFFEE, MILK
EGG	BOILED EGG		ROUED FCC			COLESLAW	POTATO CUCMBER
Fruit	BANANA		BANANA		BOILED EGG		BOILED EGG
Butter	BUTTER	BUTTER	BUTTER	BUTTER	BANANA		BANANA
Jam	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUITIAM	EPUITIAM	BUTTER	BUTTER
Pickle	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE			FRUITJAM	FRUIT JAM
		王 经支持 新路 "梁	The state of the s		MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE
DISH TYPE	Monday	Tuesday	LUNCH (12:0 Wednesday	30 to 14:30)			
Salad	GREEN SALAD	TOSSED SALAD	GREEN SALAD	CORN PEANUT SALAD	CARDEN ED SCH ON 10	Saturday	Sunday
Rice Dish	IEERA RICE	STEAMED BICE	VEG PULAO	STEAMED BICE	GARDEN FRESH SALAD	GARDEN FRESH SALAD	GREEN SALAD
DAL	DAL TADKA	RAIMA MASALA		KADHI BAKODA	STEAMED RICE	STEAMED RICE	STEAMED RICE
VEC	HOME STYLE ALOO COPHI				PUNJABI DAL TADKA	CHANA MASALA	TOOR MOONG DAL TADKA
			PALAR ROFTA CORRY	ALOO BEANS KI SUBJI	BHINDI MASALA	TINDA MASALA	SEV TAMATER
Curd/SOUP	BUTTER MILK	CURD	SWEET LASSI	SWEET AND SALTED LEMON WATER	BUTTER MILK	BUTTER MILK	SWEET LASSI
Bread-I	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	PHULKA/POORI	MULTIGRAIN BOTI
CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI
SPECIAL	GARLIC CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY
PAPAD	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS
	and the second second		HT(17:30	07010:301			
MAIN	MAGGI	VEG PUFF	PASTA IN RED SAUSE	PANI PURI	INDORE STYLE POHA	BANANA CAKE	KACHORI
TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/ COFFEE	TEA/COFFEE
			DINNER (19)	30702130)			
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Salad	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	PASTA SALAD	GREEN SALAD
Rice Dish	PLAIN RICE	VEGETABLE PULAO	STEAMED RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE
DAL	TOOD DAL TADKA			DAL TADKA	MOONG DAL TADKA	DAL MAKHANI	
	TOOR DAL TADKA	TANDOORI SOVA CHANP	BLACK MASOOK DAL TADKA	DALTADKA			VEGETABLE HAYDRABADI
VEG		MASALA		METHI MUTTER MALAI	1	SOYABEAN MUTTER	BIRYANI
PANEER	MUTTER PANEER		KADAI PANEER		PANEER MAKAHANI	NY YX	CHICKEN HAYDRABADI BIRYANI
NON VEG	ANDRA STYLE EGG CURRY	the second was relatively to be	BUTTER CHICKEN		CHEKEN BHUNA MASALA	NV VI	RHURANI RAITA
Dessert		FRUIT CUSTARD		BOONDI RABDI	1	PICE MAKHANE KI KHEER	BRUKASI BALTA
Bread-I	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI

FOOD COMMITTEE MEMBERS

S.No	Student Name
1	JASWANTH SINGH RATHORF
2	CHEDALLA CHANDU
3	RISHAV
4	VANSH PAHWA
5	AKSHATJAIN
6	LIKITH SAI VEMULAPALLI
7	NUPUR PALAV
8	NIROSHA PUROHIT
9	RIVIRESH MISHRA
10	HARSHIL SUTHAR
11	AAYUSH
12	PRATYUSH KUMAR
13	RASIKA SINHA
14	SHANU SHARMA
15	HIMANSHI CHADDHA
16	SANJANA GURUPRASAD RAO
17	SABUJ ARIYAN MALLICK
18	PRACHETH DASIKA
19	SHUBHRA MISHRA
20	PRACHI PAL
21	JITESH RANJAN PRUSTY
22	ARYAN AGRAWAL
23	ANKIT YADAV
24	NIKHIL BHANDARI
25	ADITI BATRA
26	ADITYA PAREEK
27	ASHUTOSH TYAGI
28	RAJIT KUTHIALA
29	PULKIT JAISWAL
30	ARCHIT GARG
31	AMAN RAJ

CHREF WARDEN => UNIT HEAD => Norm Chu UNIT CHEF => July FOOD GURT MANAGER => 10 mm

			BREAKFAST	(7:30 to 9:30)	P		
BREAKFAST (7:30 to	18-Sen-23	10 Con 22					
DISH TYPE	Monday	Tuesday	20-Sep-23 Wednesday	21-Sep-23	22-Sep-23	23-Sep-23	24-Sep-23
		ALOO PYAZ HING		TITUT Starty	FRIDAY	Saturday	Sunday
Main- I	MASALA UTTAPAM	PARATHA	MEDU VADA	POORI	VEG POHA	PLAIN PARATHA	CHANA
	SAMBAR	CURD	SAMBER	BHAJI	MASALA OATS	ALOO MUTER BHAJI	BHATURA
Main- II	MASALA DALIYA	CORN FLAKS	RAWA UPMA	SHEERA		CORN FLAKS	CORN FLAKS
DDEAD	PLAIN BREAD/ WHOLE	PLAIN BREAD/ WHOLE	CHUTNEY PLAIN BREAD/ WHOLE	PLAIN BREAD/ WHOLE	CHUTNEY PLAIN BREAD/ WHOLE	CHUTNEY PLAIN BREAD/ WHOLE	GREEN CHUTNEY
BREAD	WHEAT	WHEAT	WHEAT	WHEAT	WHEAT	WHEAT	WHEAT
HUT Beverage	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK
	COLESLAW	POTATO CUCMBER	COLESLAW	POTATO CUCMBER	COLESLAW	COLESLAW	POTATO CUCMBER
EGG	BOILED EGG		BOILED EGG		BOILED EGG		BOILED EGG
Fruit	BANANA		BANANA		BANANA		BANANA
Butter	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER
Jam	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM
Pickle	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE
			LUNCH (12:	00 to 14:30)			and the second second second
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Salad	GREEN SALAD	SPROUT SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	GARDEN FRESH SALAD	GREEN SALAD
Rice Dish	STEAMED RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE	RICE	STEAMED RICE	STEAMED RICE
DAL	DAL TADKA	KADHI PAKODA	BLACK URAD DAL TADKA	RAJMA MASALA	BLACK CHANA MASALA	CHANA MASALA	PUNJABI DAL TADKA
VEG	BHINDI MASALA	ALOO CHAWALI	CORN PALAK	CABBAGE MUTTER	PASTA IN PESTO SAUSE	KHATTA MITHA KADDU	GATTA CURRY
Curd/SOUP	BUTTER MILK	JALJEERA	BUTTER MILK	VEG RAITA	BHURANI RAITA	LEMON WATTER	SWEET LASSI
Bread-I	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	PHULKA/PESARATTU	PHULKA/POORI	MULTIGRAIN ROTI
CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI
SPECIAL	GARLIC CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY	COCONUT CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY
PAPAD	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS
			H.T(17:30	0T018:30)			
MAIN	MIX VEG PAKODE	SEVAIN UPMA	DHOKLA	ALOO BONDA	BHEL PURI	VEG PUFF	KACHORI
TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE
			DINNER(19	:30T021:30)			
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Salad	GREEN SALAD		GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD
Rice Dish	PLAIN RICE		STEAMED RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE
DAL	TOOR DAL TADKA		MOONG DAL TADKA	PUNJABI DAL TADKA	HING PYAZ KADHI	DAL MAKHANI	RAJMA MASALA VEGETABLE WITH
VEG		FOOD FESTIVAL		ALOO GOBHI HOME STYLE	1	PALAK KOFTA CURRY	PANEER FRIED RICE VEGETABLE IN HOT
PANEER	MUTTER PANEER		PANEER BUTTER MASALA		PANEER HAYDRABADI	NI NI	GARLIC SAUCE
NON VEG	HOME STYLE EGG CURRY		CHICKEN ROGAN JOSH		KADAI CHICKEN	WW 1/	CHICKEN FRIED RICE
Dessert				FRUIT CASTURD	N	SEVAIN KHEER	
Bread- I	MILL TIGRAIN ROTT		MULTIGRAIN ROTI	MULTIGRAIN ROTI	MALTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI

		Je					
			INTEAST	(7.20 to 9.20)	P. Market State		
	And a second		BREAKTAST	28.Sen-23	29-Sep-23	30-Sep-23	01-0ct-23
DATE	25-Sep-23	26-Sep-23	Z7-Sep-23 Wednesday	Thursday	FRIDAY	Saturday	Sunday
DISH I YPE	Moaday		CEVAIN UDMA	POORI	VEG POHA	DAL PARATHA	CHANA
Main-I	MEDU VADA	ALOO PYAZ HING PARATHA	SEVAIN UPMA	BHAII	MASALA DALIYA	CURD	BHATURA
	SAMBAR	CURD	SAMBER	SHEERA		CORN FLAKS	CORN FLAKS
Main- II	MASALA POHA	CORN FLAKS	RAWA IDLI	SILERA	CHUTNEY	CHUTNEY	GREEN CHUTNEY
		T PLAIN BREAD / WHOLE WHEAT	PLAIN BREAD/ WHOLE WHE				
BREAD	PLAIN BREAD/ WHOLE WHEA	TEA COFFEE MILK	TEA. COFFEE. MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK
HOT Beverage	TEA, COFFEE, MILK	POTATO CUCMPER	COLESLAW	POTATO CUCMBER	COLESLAW	COLESLAW	POTATO CUCMBER
	COLESLAW	FOTATO COCMBER	COLLEMAN		BOULED ECC		BOILED EGG
EGG	BOILED EGG		BOILED EGG		PANANA		BANANA
Fruit	BANANA		BANANA	BUTTER	BUTTER	BUTTER	BUTTER
Butter	BUTTER	BUTTER	DUITER	EPIIIT IAM	FRUITIAM	FRUIT IAM	FRUIT JAM
Jam	FRUIT JAM	FRUIT JAM		MIXED VEC PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE
Pickle	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEGTICKEE			
	The second se		LUNCH (12:	00 to 14:30) Thursdou	Feiday	Saturday	Sunday
DISH TYPE	Monday	Tuesday	wednesday		TOSSED SALAD	CARDEN ERESH SALAD	CREEN SALAD
Salad	GREEN SALAD	SPROUT SALAD	GREEN SALAD	TUSSED SALAD	VEG FRIED RICE/STEAMED	CTEAMED DICE	STEAMED BICE
Rice Dish	STEAMED RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE	RICE	STEAMED NICE	DUNIARI DAL TADIXA
DAL	BLACK MASOOR DAL TADKA	KADHI PAKODA	DAL TADKA	KAJMA MASALA	ALOU BLACK MASALA	CHANA MASALA	COLTAN ATED
VEG	BHINDI MASALA	ALOO HARE BANGAN KI SUBJI	GOBHI MUTTER	KADAI SOYABEEN	VEG MANCHURIAN	KHATA MITHA KADDU	SEV TAMATER
Curd/SOUP	BUTTER MILK	RASNA	BUTTER MILK	CURD	JAL JEERA	BUTTER MILK	SWEET LASSI
Bread- I	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	PHULKA	PHULKA/POORI	MULTIGRAIN ROTI
CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI
SPECIAL	GARLIC CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY
PAPAD	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS
			H.T(17;30)	TO18:30)			
MAIN	PASTA IN RED SAUSE	BANANA CAKE	PANI PURI	KACHORI	ALOO TIKKI	CHOCOLATE ROLL	MASALA IDLI
TEA/COFFEE	GINGER TEA/COFFEE	MINT TEA/COFFEE	SAUNF TEA/COFFEE	TULSHI TEA/COFFEE	GINGER TEA/COFFEE	MINT TEA/COFFEE	TULSHI TEA/COFFEE
			DINNER(19:3	IOTO21:30)			
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Salad	GREEN SALAD	VEGETABLE PULAO	GREEN SALAD				
Rice Dish	PLAIN RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE	MASALA PULAO	STEAMED RICE
DAL	TOOR DAL TADKA	DAL MAKHANI	MIX DAL TADKA	PUNJABI DAL TADKA	HING PYAZ KADHI	DAL MAKAHNI	CHANA DAL TADKA
VEG		ALOO BHARTA		ALOO MOONG WADI	1	DUM ALOO	VEGETABLE HAYDRABAD
PANEER	MUTTER PANEER		PANEER KHOLAPURI		KAIL MUTTER CURRY	NU	NARGASI KOFTA CURRY
NON VEG	HOME STYLE EGG CURRY		CHICKEN CURRY		CHICKEN BLACK PAPPER	XX	CHICKEN HAYDRABADI
Dessert		RICE KHEER		FRUIT CASTURD	4	IALERI	BIRYANI BHURANI RAITA
Bread-1	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTICEAIN DOTI		II.		DITORIUT RALLA
		Propriority ROTT	MOLTURAIN KOTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI

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			HREAKFAS	T (7:30 to 9:30)			
	04-Sen-23	05-Sep-23	06-Sep-23	07-Sep-23	08-Sep-23	09-Sep-23	10-Sep-23
DISH TYPE	Nonday	Tuesday	Wednesday	Thursday	PRIDAY	Seturday	Sanday
	MEDUVADA	ALOO PYAZ HING PARATHA	SEVAIN UPMA	POORI	VEG POHA	DAL PARATHA	CHANA
Main-1	CAMBAD	CURD	SAMBER	внал	MASALA DALIYA	CURD	BHATURA
	SAMBAR	CORNELAKS	RAWA IDLI	SPROUT CHAT		CORN FLAKS	CORN FLAKS
Main- II	COCONUT CHUTNEY	CORATIZANO	CHUTNEY		CHUTNEY	CHUTNEY	GREEN CHUTNEY
RRFAD	PLAIN BREAD/ WHOLE	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	WHEAT	WHEAT	PLAIN BREAD/ WHOLE WHEAT
HOT Beverage	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK
HOT Beverage	COLESLAW	POTATO CUCMBER	COLESLAW	POTATO CUCMBER	COLESLAW	COLESLAW	POTATO CUCMBER
EGG	BOILED EGG		BOILED EGG		BOILED EGG		BOILED EGG
Feuit	PANANA		BANANA		BANANA		BANANA
Putter	BANANA	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER
Butter	FRUITIAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM
Jam	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE
Pickle	MIXED VEGTICINES	Contraction of the second s	LUNCH (12	-00 to 14:30)			
		Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
DISH TYPE	MODICAL AD	CORN DEANUT SALAD	GREEN SALAD	TOSSED SALAD	TOSSED SALAD	GARDEN FRESH SALAD	GREEN SALAD
Salad	GREEN SALAD	CORN FLANOT SALAD	STEAMED RICE	STEAMED RICE	VEG BIRYANI/STEAMED RICE	STEAMED RICE	STEAMED RICE
Rice Dish	STEAMED RICE	STEAMED RICE	CREEN MOONG DAL TADKA	RAIMA MASALA	SAMBAR	CHANA MASALA	PUNJABI DAL TADKA
DAL	BLACK MASOOR DAL TADKA		CORHI MUTTER	KADAI SOYABEEN	DOSA ALOO MASALA	KHATA MITHA KADDU	SEV TAMATER
VEG	BHINDI MASALA	ALOO SHEMFALI		CURD	VEG RAITA	BUTTER MILK	SWEET LASSI
Curd/SOUP	BUTTER MILK	RASNA	BUTTER MILK		PHULKA /PESARATTI	PHULKA/POORI	MULTIGRAIN ROTI
Bread- I	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTT		FRIED CHILL	FRIED CHILLI
CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI		CAPLIC CHUTNEY	GARLIC CHUTNEY
SPECIAL	GARLIC CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY	COCONUT CHUTNEY	COVING	FRYIMS
PAPAD	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRIUMS	
			H.T[17:300	T018:30)	KACHODI	RAWA IIPMA	MASALA IDLI
MAIN	MIX VEG PAKODE	MUTTER KULCHA	MAGGI	DHOKLA		TFA/COFFFF	TEA/COFFEE
TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/ COTTEE	
			DINNER (19:3	0T021:30}			Sunday
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Sataruay	CREEN SALAD
Salad	GREEN SALAD	VEGETABLE PULAO	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	CTEAMED DICE
Rice Dish	PLAIN RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE	STEAMED NICE
DAL	TOOR DAL TADKA	DAL MAKHANI	MOONG DAL TADKA	PUNJABI DAL TADKA	HING PYAZ KADHI	DAL MAKHANI	RAJMA MASALA VEGETABLE WITH PANEER
VEG		TANDOORI SOYACHANP MASALA		SUBIL	A	ALOO BHARTA	FRIED RICE VEGETABLE IN HOT GARLIC
PANEER	MUTTER PANEER		KADAI PANEER		PANEZI MASALA		SAUCE
NON VEG	HOME STYLE EGG CURRY		RARA MURGH		CHICKEN BHUNA MASALA		CHICKEN FRIED RICE
Dessert		FRUIT CASTURD		BALUSHAI	/	BROWNI	
Bread I	MILL TICRAIN POTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	ULZIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI

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C. HISS



HANDWASH ETIQUETTE AND SANITIZATION

- Rinse hands with running water and apply liquid soap.
- Wash hands for 20 seconds.
- Rinse hands with running water.



Wet hands with water



Wash fingernails and fingertips



Rinse hands with water



Apply enough hand wash/soap to cover your hands



Rub the backs of fingers



Rub hands palm to palm



Clean thumbs



Scrub between your

Rub each wrist with Opposite hand



Dry with a single use towell



Use disposable towel to turn odd the faucet



Your hands are clean

Dry and sanitise hands





COOKING AND STORING TEMPERATURE

Frozen Food Below -18°C	
Fresh Vegetables & Fruits 0°C to +5°C	•
Dairy Products 0°C to +5°C	•
Dry Provisions Storage +18°C to +21°C	2.
Cooking Temperature Above 75°C	





DAIRY COLD ROOM

DO'S

- Maintain 0°C to 5°C temperature.
- After opening a packet, transfer the product to a closed container and place date tag stickers.
- Tag all dairy products with the receiving date.
- Follow the FIFO process.
- Transfer ready-to-eat products to a container with a proper lid and label them (date, time, and item name).
- Clean the premise regularly as per schedule

DONT'S

- Do not keep hot food in the room.
- Do not keep tampered food.
- Do not leave any food open.
- Do not dump heavy load.




KINDLY FOLLOW THE FIFO PROCESS FIRST IN FIRST OUT





KINDLY FOLLOW THE FEFO PROCESS FIRST EXPIRED FIRST OUT









THIS SINK IS TO BE USED ONLY FOR WASHING HANDS







KITCHEN HYGIENE PRACTICES

HAND WASHING & SANITISATION

 All food handlers should follow proper handwashing and sanitisation process at regular intervals.



- VEGETABLE WASHING & SANITISATION
 - Clean and sanitise fresh vegetables and fruits immediately after receiving/before/after cutting.
 - Use approved chemicals and appropriate PPE as per proper dilution/matrix.



- WORK AREA SANITISATION
 - Sanitise and store working tables, cutting boards, cutting blades, and knives at regular intervals.



• CLEANING & DEEP CLEANING PROCESS

 Follow strict and regular cleaning and deep cleaning processes to maintain hygiene.





NOTICE

HAIR NETS ARE COMPULSORY IN THIS AREA



THIS IS THE FOOD PRODUCTION AREA

WEAR PROTECTIVE CLOTHES







CRITICAL STORAGE TEMPERATURE POINTS

Frozen Food	> -18°C
Fresh Vegetables & Fruits	0°C - +5°C
Dairy Products	0°C - +5°C
Dry/Canned Food	+18°C - +21°C
Cooked Food	0°C - +5°C
Processed & Semi-Processed Food	0°C - +5°C





STORE RAW AND COOKED FOOD SEPERATELY



Separate Cooked food from raw food



KNIFE SAFETY







CHILLER



DO'S

- Store and mark all perishable products with proper date tag stickers.
- Keep all semi-processed and processed foods covered along with date tag stickers.
- Keep raw food below the cooked food.
- Follow proper segregation as per the



DONT'S

- Do not keep hot food in the chiller.
- Do not spill on the walls/floor of the chiller.
- Do not load more than its capacity.



labelling (veg/non-veg, allergen, raw/cooked).

- Clean as per schedule.
- Sanitise the chiller regularly.



4D-PEST CONTROL

The 4D-pest control concept

- 1D DEOD (Deny Entry Open Drains): Fix broken fixtures, broken equipment, doors, holes, etc.
- 2D Deny Shelter: Organise the workplace, food storage area, unemptied dustbins, etc.
- 3D Deny Food: Clean and sanitise all food contact surfaces regularly.
- 4D Destroy: Use pest control services to eliminate pests.





CLEAN AS YOU GO

- Regularly dispose of food waste.
- Use the right chemicals for each task.
- Clean and sanitise food contact surfaces after each use.
- Wash cleaning cloths/wipers every 4 hours.
- Clean the chiller/other equipment inside out daily.
- Keep your workstation clean at all times.





PERSONAL HYGIENE







FOOD CONTAMINANT

Elements that should not be present in the food.

Biological Contaminant	Physical Contaminant	Chemical Contaminant
Viruses	Plastic	Pesticides
Bacteria	Steel Wool	Herbicides
Parasites	Glass	Rodenticides
Insects	Metal	Arsenic
Other microorganism	Other Foreign Objects	Mercury
		Other Toxins





5S BENEFITS

1. Sort	Remove the unnecessary - only keep what is used and red tag the rest
2. Set in order	A place for everything - fixed locations and clear visualisation
3. Shine	Regular cleaning and checking, in compliance with the standards
4. Standardise	The same standard, every time for everybody - optimising this standard across all shifts
5. Sustain	Maintain discipline - sustain the habit of properly maintaining and improving the standards

Improved safety

Improved quality

Improved productivity

Boosted morale

Improved company image



KNOW YOUR PPE

Head Gear: Prevents hair from falling into the food.	Food Handler Gloves: Provides protection against germs.	
Cooking Apron: Protects body from heat and uniforms from stains.	Safety Shoes: Provides grip, protects feet and toes, especially from blunt forces.	
Safety Goggles: Safeguard eyes while handling chemicals and deep cleaning.	Chain Mill Gloves: Helps avoid cuts/injuries when cutting meat or fish.	
Plastic Apron: Protects body and uniform from water/chemical spillage.	Gum Boots: Provides grip and protection from wet surfaces and chemicals.	
Nose Mask: For respiratory hygiene.	Latex Gloves: Protects hands from water and chemicals while cleaning.	



WASTE MANAGEMENT IN THE KITCHEN

DO'S	DONT'S
Cover all the bins	Avoid the use of broken bins.
Use only pedal-operated garbage bins.	Avoid overflow of food waste from bins.
Clean and sanitise the garbage bins regularly.	Avoid stacking bins close to the food counter.
Dispose of the garbage regularly.	Avoid contact with food after handling garbage.

ALWAYS SEGREGATE

Blue - Dry Waste	Green - Wet Waste	Red - Glass Waste





CHEMICAL SAFETY

- A label can indicate:
- **1. Directions for use**
- 2. Emergency procedure
- 3. Manufacturing date
- 4. Safety instructions
- 5. Manufacturer details

When you come across a new chemical:

- Take a safety break and read the label. Take your supervisor's help if required.
- Be aware of MSDS (Material Safety Data Sheet) guidelines for each chemical, including PPE require ments, chemical reactions, first aid, flammability, suitable fire extinguishers, etc.
- Remember that all chemicals should be stored in a dedicated place.
- Keep in mind the classification of chemical safety. Take time to read instructions and symbols as given below:
- 1. CORROSIVE
- 2. CONTAINS GAS UNDER PRESSURE
- 3. MAY CAUSE INTENSE FIRE
- 4. HIGHLY FLAMMABLE
- 5. POTENTIALLY EXPLOSIVE



DOS

- Wear protective clothing while handling chemicals.
- Ensure shoes, goggles, gloves, facemask, and aprons are available at all times.
- Avoid the actions given below while

DON'T'S

handling chemicals:

- Drink chemicals
- Touch eyes
- Leave spillages



CROSS- CONTAMINATION By microbial hazards or pathogens DIRECT CONTACT

From source to ready-to-eat foods

RAW



COOKED



INDIRECT CONTACT

From source via equipment or contact surface to ready-to-eat foods



DRIP CONTACT

Always store raw food in the lowest compartment of the refrigerator to prevent cross-contamination by dripping. High-risk/ready-to-eat food

should be stored in the top compartment of the refrigerator.





REHEATING

- Reheat food for hot holding at 75°c.
- Consume food within two hours once reheated.
- Before consumption, heat the food for at least 2 minutes.



FOOD COOLING PROCESS

You can cool food in two stages:

Stage 1: Cool product from 65°C to 21°C within two hours.

Stage 2: Cool product from 21°C to 5°C or below within two hours (in chiller or stack on a cooling rack).

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COLD STORAGE TECHNIQUES







Ready to Eat Cooked Food



MIS-ENPLACE MARINATES

RAW

Cold storage temperature range can be between 0°C to 5°C.

Always remember to:

Cover the food at all times

Follow the FIFO process and display day tags

Record the temperature as per defined timelines



RECEIVING

BAD PRACTICE		GOOD PRA	CTICE
No segregation: Segregation of raw and ready-to-eat items.		Segregation: Food and chemicals are not be transported together.	
Food temperature above 8°c.		Temperature: Check the temperature of products - chilled items below 5°c and frozen items below 18°c.	
Cardboard Box: No cardboard boxes to be taken.		Cooling Temperature: The temperature of cold foods should be between 0°c to 5°c.	
Pests: Ensure there are no pests.		Personal hygiene, proper grooming, and personal hygiene standards.	
		Transfer: Use only closed and clean food transfer vehicles.	



FOOD SAFETY GOLDEN RULES





















COLOUR CODING PROCEDURE

• COLOR CODE FOR DUSTER CLOTHS

- White For wiping hands
- Green For cleaning the veg food preparation area
- Black For cleaning the equipment
- Red For cleaning the non-veg food preparation area



- COLOR CODE FOR CUTTING BOARDS & KNIVES
 - Green For cutting and chopping raw vegetables and fruits
 - White For cutting/handling dairy products
 - Yellow For cutting/handling other vegetables
 - Blue For cutting seafood
 - Red For cutting non-veg food





STORAGE OF ALLERGENS

- Assign separate storage areas for allergic and non-allergic ingredients and/or products.
- Do not store allergens over non-allergens when segregated storage is unavailable.

HANDLING OF ALLERGENS:

- Demarcate equipment/utensils as per allergen processing.
- Use separate chopping board/knife for handling allergen.
- Have a designated zone in the main kitchen for handling allergen.
- Avoid handling allergen and non-allergen products together.

Gluten	A CONTROL OF	Soya	
Sulphite In concentration of 10 mg/kg or more	SO2	Egg	
Peanuts and nuts		Fish	





USAGE OF GLOVES

- Use gloves while handling ready-to-eat food.
- Use blue colour latex-free gloves for handling food.
- Monitor the use of gloves to ensure they are worn correctly and do not risk cross-contamination.
- Do not carry out any other tasks using the same gloves.
- Replace gloves if they are torn/damaged/soiled/dirty/stained/oily/after handling non-veg food. Also, replace them after handling garbage/touching body parts/any unsanitary practice or in case of excess sweat.
- Use different gloves to handle non-veg food items.





3 SINK DISH WASHING METHOD

STEPS:

- SCRAP: Food from utensils and pots
 - SINK 1: Wash with clean and soapy water
 - SINK 2: Rinse with potable water
 - SINK 3: Sanitise washed utensils with hot water above 45°C. Use 150 PPM of chlorine in case hot water is unavailable.

AIR DRY







Manipa University Jaipur Provides Sustainable Food Choices for All on Campus, Including Vegetarian and Vegan Options

As the world grapples with the environmental and ethical challenges posed by the food industry, Manipal University Jaipur is stepping up to set a positive example. Manipal University Jaipur is committed to offering sustainable food choices that cater to the diverse dietary preferences of their students, faculty, and staff. (Picture 1& 2)

Manipal University Jaipur understands the importance of sustainable food choices (Picture 5), As the food industry is a major contributor to greenhouse gas emissions, deforestation, and biodiversity loss. Sustainable food choices given by Manipal University Jaipur can help mitigate these issues by promoting practices that reduce the carbon footprint and minimize harm to ecosystems. Sustainable food choices often align with healthier eating habits. Manipal University Jaipur is incorporating more plant-based options into menus can have positive effects on individuals' health, reducing the risk of chronic diseases. (Annexure 5) Sustainable food choices also address ethical concerns related to animal welfare and fair labor practices in the university. By opting for ethical food sourcing, Manipal University Jaipur promotes responsible consumption and production.

Manipal University Jaipur is diversifying the dining options to accommodate various dietary needs and preferences. This includes offering a wide range of vegetarian and vegan dishes that are not only delicious but also eco-friendly. (Picture 1&2) Manipal University Jaipur prioritizes locally sourced ingredients to support regional farmers and reduce the carbon footprint associated with food transportation. This farm-to-table approach enhances sustainability. Beyond the menu, Manipal University Jaipur is implementing sustainable food service practices such as reducing food waste, composting organic materials, and minimizing single-use plastics in their dining facilities. (Annexure 1, 2, 3) (Picture 3 & 4)

Manipal University Jaipur plays a pivotal role in shaping the future by educating the leaders of tomorrow. By offering sustainable food choices on campus, including vegetarian and vegan options, Manipal University Jaipur is not only promoting healthier lifestyles but also instilling values of environmental responsibility and ethical consumption in students and staff. These initiatives have far-reaching impacts, influencing food preferences and behaviors long after graduation. As the university embraces sustainable food practices, we





move closer to a future where responsible food choices are the norm, benefiting both people and the planet. (Annexure 4)



Picture 1: Food Choices Available at MUJ Campus

Cheffie a Cheffie continental	ALOO PARATHA 1. (2pcs + Pickele + Curd) 80/- BIRYANI 1. Veg. Biryani 2. Egg. Biyani 3. Chicken Biryani 3. Chicken Biryani	65
	SMALL SNACKS HOT BEVERAGES 1. Veg Purit 19/- 2. Ponnew Furit 30/- 3. Samosa 16/- 4. Manke Fortice 20/- 5. Ponnek Fortice 20/- 6. Manke Fortice 20/- 7. Ponka 60/- 8. Observe Fourt 20/- 9. Observe Fourt 20/-	10 15 30 30, 35, 20/ 30/
	2. Cruisen Sandwich Gritind 55/- 50/- 4. Cruisen Sandwich 55/- 50/- 5. Cruise Candwich 50/- 50/- 1. Assorted Pastry 37 2. Veg Maggie 30/- 3. Cruise Candidation 3. Cruise Maggie 30/- 4. Cruise Candidation 4. Cruise Candidation 300 6. Cruise Candidation 300 6. Assorted Baryan 40/- 4. Cruise Candidation 7. Assorted Candidation 40/- 4. Cruise Candidation 8. Assorted Baryan 40/- 4. Cruise Candidation 9. Cruise Candidation 40/- 4. Cruise Candidation 9. Cruise Candidation 40/- 4. Cruise Candidation 9. Cruise Candidation 300 1. Cruise Candidation 300 2. Cruise Candidation 300	05000 000000 ++++++

Picture 2: Food Choices available at MUJ Cafeteria







Picture 3: Farming Activities at MUJ Campus



Picture 4: Crop cutting at MUJ Campus







Picture 5: variety of options available



Picture 6: Departmental Stores



FOOD HANDLERS PERSONNEL HYGIENE

Who is a Food Handler?

A food handler is anyone working in food business handles/touches food packed/ unpackaged directly as well as the equipment and utensils used to prepare or serve food and/or surfaces that come into contact with food. The food handlers may be deployed for various tasks such as cooking, preparing, serving, packing, transporting etc

Thermal Screening – All food handlers for the shifts shall undergo thermal screening at the time of entering as there will be a security check point for screening before entering the campus/area of the clients.

RESPONSIBLE STAKE HOLDERS

S. No	Process step	Responsibility	Authorized by
1	Supervisors	Executive	Unit Head

Hand washing – To be carried out at least for 20 -30 seconds on arrival to shift and also as and when required during the working hours. (Hand washing procedure refer –Hand washing instruction)

PPE – All the required suitable PPE like uniforms, head caps, aprons, and gum boots should be worn at the time of entering the premises. **(Refer – PPE work instructions)**

Fingernails - Keep fingernails neatly trimmed for easier cleaning. Do not use fingernail polish.





Jewellery -Remove all unnecessary jewellery while preparing food (Refer Jewellery Policy) All supervisors and food handlers who handle or come in contact with food or any utensil used in the preparation, processing or service of food will:

• Don't smoking/tobacco chewing while at work.



• Don't prepare food when sick, for example when suffering from diarrhea, and/or vomiting

QFS/HC/POL/04

Revision -01

Issue date 01-11-2021



FOOD HANDLER MEDICAL POLICY

PURPOSE - To ensure all our food handlers working/deployed are free from any contagious, infectious or communicable disease.

SCOPE – All food handlers to undergo health checkup to meet the FSSAI & NABH accreditation requirement.

RESPONSIBLE STAKE HOLDERS

S.	Process step	Responsibility	Authorized by
No			
1	Employment medical test	HR/Quality Team	Unit Head/Business
	(New joiners/Annual)		Head
2	Vaccination of the employees	HR/Quality Team	Unit Head/Business
			Head

PROCEDURE

- 1. The health check-up shall be done within 15 days -30 days of joining for all new employees.
- 2. For all the existing employees the health check-up shall be done once in a year.
- 3. The medical fitness certificate as per the FSSAI Performa will be recorded for all food handlers & the fitness certificate will carry sign and seal of the registered medical practitioner.
- 4. In case of any health issues diagnosed, the food handler will be under observation and followed up for further visit to the doctor till the recovery.
- In case the food handler contacts any communicable disease during the course of his work and want to resume duty after his sick leave, he must produce a medical certification by a registered medical practitioner.
- 6. The histories of medical fitness, vaccination and treatments of the food handlers will be recorded and retained by HR /Quality team (If available)
- Unit Manager /HR To share the list of food handlers who need to undergo medical check to HR/Quality Team
- 8. Unit Head/Regional Manager To approval for new joiners.
- 9. Business –Head To approve for annual renewal.
- 10. Quality Team/HR team To coordinate with Doctor/Diagnostic lab for date and schedule and once confirmed same will be communicated at Unit levels.
- 11. Quality team/HR Team To coordinate on the day of medical camp and ensure reports are available within 5-7 working days from the lab.
- 12. Any post health check-up deviations if found in the food handlers further diagnosis & medication will the QFS management call based on the status of report/testing.


TESTS & PARAMETERS AS PER FSSAI PERFORMA & MEETING NABH ACCREDATION

- 1. Physical examination
- 2. General Eye test
- 3. General Skin test examination.
- 4. Compliance with schedule of Vaccine to be inoculated against enteric group of diseases
 Vaccination against enteric group of diseases is done if suggested by the local medical practitioner of the concern municipal authority.
- 5. Stool Analysis
- 6. Urine Routine
- 7. Blood CBC
- 8. Hepatitis A Test if the value is negative then employee needs to be vaccinated. Same shall be discussed with QFS and management will take a call regarding the same.

Parameters	Duration
Albandazole tablet 400mg/Deworming tablets	Once in 6 month
Stool Analysis- Routine and Culture	Once in 6 month
Hepatitis A –Test	Once in 1 year
Urine routine	Once in 1 year
General Skin & Eye.	Once in 1 year
Physical Examination	
Typhoid Vaccination	Once in 3 year –Booster
TT Vaccination	Once in 1 year or as
	when there is any injury
	with sharp metals

Post sick leave/Long leaves

Employees who return to work after long leave more than 10 days need to submit the physical fitness certification & stool test with his own expenses.

NOTE 1 - Vaccine Hep B vaccine (3 doses in a year) shall be an optional/as per accredited Hospital requirement if client insist. This will provided to staff who are invloved directly with patient service (service team). Costing part to be taken up with client as this will be additional cost.
NOTE 2 -Hep A test is done for Health care sector staff, if any staff confirmed with Hep A then we need to take up with the HR for action plan on vaccination/medical treatment needed.
NOTE 3 - If the Hospital is non - accredited/doesn't mention any specific medical tests as part of agreement we shall opt for tests which will compile to FSSAI (Specified in Non-Health Care manual) & same shall be communicated to client.

Records

RECORD NAME	DOUMENT NAME	RESPONSIBLE
Medical Test -Details	QFS/HC/HR/ANX/06	FSMS/HR InCharge
Vaccine -Details	QFS/HC/HR/ANX/07	FSMS/HR InCharge



FOOD ALLERGEN POLICY

PURPOSE: - To establish procedure for control of food allergens.

RESPONSIBLE STAKE HOLDERS

S. No	Process step	Responsibility	Authorized by
1	Store InCharge	Store keepers	Unit Head
3	Production team	Unit Head chef/Quality – Executive	Unit Head & Corporate Chef

PROCEDURE

Definition of Food Allergen: Food Allergens are the substances which when eaten or inhaled interacted with the immune system of humans and may cause allergic reactions. Immunoglobulin E, a class of antibodies in our system responds to allergens, lead to allergic reactions in our body.

Food allergies occur when ones body's immune system reacts to certain compounds in food like proteins. Reactions to it vary from mild symptoms to fatal problems.

The symptoms of allergenic reactions are itching, inflammation of skin, blisters and in certain cases fever, etc.

Some of the common prevailing food allergens are identified as below

1 Wheat Gluten - Cereals containing gluten; i.e., Image & pale wheat, rye, barley, oat Image & pale Image & pale</t

LIST OF SOME OF THE COMMON FOOD ALLERGENS



3	Milk Protein –	
4	Crustaceans –like crabs, shrimps ,lobsters, prawns	
5	Cashew Nuts /Tree nuts /Groundnuts (peanuts)	
6	Fish /Shell fish	
7	Mustard seeds	

Allergen Control:

- All allergen-containing ingredients are clearly identified.
- If any customers raises an issue of allergic to any ingredients, same to be recorded and alternate arrangement is provided.
- All food handlers shall be made aware of what allergens are, the effects of allergens on allergy sufferers, the actual allergens handled on site and the facility controls to prevent allergen cross contamination.
- Display all the allergens at the relevant places in the processing and storage areas for awareness among food handlers.



- Allocation of separate storage for allergen and non-allergens. If there is space issue then allergen items to be stored in separate racks.
- Dedicated scoops, utensils shall be used for specific allergens. Thorough cleaning should be there between allergic containing product and non-allergic containing product manufacture.

QFS/HC/POL/02



POLICIES

PURPOSE: To establish a safer food safety policy to avoid the serious injuries that usually

can occur during food handling and also to avoid the cross contamination.

SCOPE - The scope of this policy is as below:

- 1) Jewellery Policy
- 2) Glass Policy
- 3) Brittle Plastic Plastic particularly single and disposal plastic
- 4) Metal Policy
- 5) Wood Policy
- 6) Newspaper Policy
- 7) Carton boxes Policy
- 8) Banned Chemical Policy

RESPONSIBLE STAKE HOLDERS

S. No	Process step	Responsibility	Authorized by
1	Check for jewellery	Supervisors/ Executive	Unit Head
2	Handling of glass breakages	Supervisor	Unit Head
3	Removal of broken plastic crates, trays, etc. Usage of single and disposal plastic	Supervisors/Quality team/ Executive	Unit Head
4	Preventive Maintenance of the equipment	Maintenance supervisor/Unit Supervisors	Asset Manager & Unit Head
5	To prevent the entry of wood/newspaper/carton boxes in the production premises	Production team/store in charges/Executive	Unit Head
6	To prevent usage of banned chemicals	Production team/store in charges/Quality Team Executive	Unit Head

PROCEDURE

Jewellery Policy - Serious injuries can occur if the food handling staff wear jewellery

during work. It can occur when in contact with electricity, moving equipment/machinery and hot surfaces.

Objective is to have 'No harm occurs to an individual, as a result of wearing jewellery while



working'. Also this can also increase the chances of getting any jewellery pieces/part as foreign particle in the food served.

1) For food handlers jewellery refers to finger rings, earrings, studs, facial attachments such as chains/rings, bracelets (including medical bracelets), necklaces and watches.





- The jewellery policy to be followed by all the food handlers involved in Pre-preparation, processing, Packing, Dispatch, Serving area and pot/dish washing.
- 3) The food handlers in particular pot wash staffs shall not be allowed to wear jewellery, (except mangalsutra) such as metal Bangles, rings, necklace, threads, false nails, etc. at the food handling areas during working hours.
- 4) The earrings and hair clips especially worn by women staff especially deployed in pot washing should be covered by hair nets.
- 5) Before the start of the each shift, the staff is checked by the supervisor/Executive Quality team/Security for any jewellery and if any jewellery is found, the staff is made to remove the same. The action is noted in the personal hygiene checklist.

<u>Glass Policy:</u> - Glass being brittle in nature when improperly handle can cause very serious injuries to food handler and also there are chances of glass pieces entering the food.



Purpose of this policy is to eliminate/minimize the usage of glass to avoid the entry of glass piece as physical hazard in the food premises.

- Procurement team to avoid getting the items packed wherever glass are used in packing like honey bottles, sauce bottles etc to store unless there is requirement due to manufacturing process from the supplier.
- 2) If at all received /there is requirement glasses as of part of food packaging, such items (like Honey bottle, sauce bottle) etc. excluded from the above policy. However such packaging bottles to be stored on the lowest most rack at the stores separately.



- 3) In processing and packing area, all the glass parts, which are part of the equipment or infrastructure like doors, windows are suitably protected.
- 4) No glass items are taken directly into production area.
- 5) Uniforms/Dresses having ornamental glasses shall not be entertained.
- 6) All glass ornaments like bangles especially by women staff shall not be entertained.
- 7) Glasses as of part of cutlery and crockery used in events or any occasions of services are excluded from the above policy. These has to be separately stored away from day to day production and same to be assigned.
- 8) Any breakages of glass to be reported to the F& B Supervisor and same has to be documented before discarding.
- 9) If the area is shattered with glasses it has to be carefully cleaned using wheat flour/maida. Sprinkle the flour and clean the premises and ensure it is discarded separately.



10) There should be regular inspection on chipping of edges after each usage and washing before storing.

Plastics (single/disposable plastic cover) - The purpose of this Policy is to eliminate/minimize the single/disposable plastic usage in the premises as part of plastic waste management.

NOTE - Our plastic policy shall complies with the timely notifications set by the local regulation of the Indian municipal cities/towns/GOI/Govt approved agencies. It shall also depends on the mutual understanding with individual unit & client.

- In general use of plastic materials (hereby considered as single use/disposable plastic) plastic cups, spoons, plastic sheets and items made of thermocol shall not be used in any form packing or take away counters unless there is special requirement from client side/Operational requirement.
- Single-use plastics, often also referred to as disposable plastics, are commonly used for plastic packaging and include items intended to be used only once before they are thrown away or recycled.



3) Vegetables, fruits or any perishable raw food materials shall not be received in such single use plastic covers if received also should be sent back to the supplier and ensured it is not disposed within the premises.



- 4) Plastics which are integral part of packing of food which are sealed during manufacturing/processing of packing are excluded from this policy.
- 5) Plastic which complies with food grade standards are excluded from this policy. Cling wraps shall also be excluded provided supporting certifications of food grade to be maintained/displayed.

Newspaper Policy - Use of newspaper and magazine pages in packaging of food items has an impact of the health of consumer as the chemical lead used in the print can reach out to food and can enter the body of humans leading to various adverse health consequences.

- Any form of newspaper/magazine paper shall not be used in pre preparation, processing, packing, dispatch and serving area.
- 2) Any items shall not be received wrapped with newspaper especially fruits and vegetables.

<u>Metal Policy</u> - The purpose of adopting metal policy to avoid metal contamination in the food premises. Equipment and containers that come in direct contact with food and used in handling, storage, preparations, processing, packing and serving shall be



- Made of materials that are durable, non-corrosive and smooth with no toxic effect in intended use.
- 2) All the tools like cutter, peeler, knives used preferably be of stainless steel.
- 3) No unauthorized metal tools/kits are allowed inside the production premises during working hours. A dedicated time slot to be followed for maintenance related work and to ensure that there won't be any sort food production/preparation occur during this time and same has to be documented.



- 4) Proper preventive maintenance is being followed to avoid pieces of metal coming from the equipment. Weekly or Monthly (based on Operation) basis preventive maintenance of all equipment used particularly in cooking/pre-processing to be checked and documented by Supervisors.
- 5) If any broken/damaged/chipping of equipment happen during production hours same should be immediately placed in separate premises till it is maintained/replaced.



6) Any form of non-cooking related metals like staplers, safety pins etc. will not enter kitchen premises.



<u>Wood Policy</u> - The purpose of adopting wood policy to avoid contamination from wood and also to avoid the harborage place for pest/insect/fungus/any microbes that grow on the wood in the food premises is as follows

 No wooden items like pallets, wooden cutting boards, wooden handled knives, wooden laddles, rollers used in Chapathi rolling.



2) However plywood used in safety of electrical is excluded from this.

<u>**Carton box policy -**</u> This policy is followed as part of eliminating /restricting the breeding places for pests especially cockroaches



- Carton boxes will not be used in direct contact with food while in handling, storage, preparations, processing, packing and serving. It will not be allowed in the preparation premises.
- 2) Any type of carton shall not be used as mat or placed on floor.
- 3) However this excludes single layered boards and those which are part of bulk packing in store like biscuit, juices etc. The same items like biscuits. Juices to be transferred to big bins based on the availability of space available in the store.
- In store it should be placed as minimum if absolutely necessary and empty ones need to be placed separately for discarding.

Banned chemical policy

- Unapproved chemical brand will not be used in any of the processing of cooking & cleaning and sanitization like cooking soda, Potassium permanganate (KMNO4), caustic soda, bleaching liquids.
- 2) Non-branded & unapproved chemicals shall not be in usage like liquid soaps oil/bar cake used in cleaning, washing power etc. Only food industry approved chemicals with proper MSDS to be used.
- 3) Chemicals like chandi ka varka (majorly in sweet production), Potassium Bromate as a food additive (majorly in bread) will not be used in the food production due to its potential hazards.
- 4) In food packages Toluene used in printing has now been banned by FSSAI. Toluene is a chemical used in paint-thinners. When used in printing food packs, toluene is known to permeate into the food despite various layers between the packet and food products. It can cause damage to the liver and kidney. Hence, toluene based packing shall not be used.

QFS/HC/POL/01

Revision -01

Issue date 1-11-2021



FOOD ALLERGEN POLICY

PURPOSE: - To establish procedure for control of food allergens.

RESPONSIBLE STAKE HOLDERS

S. No	Process step	Responsibility	Authorized by
1	Store InCharge	Store keepers	Unit Head
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PROCEDURE

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- All food handlers shall be made aware of what allergens are, the effects of allergens on allergy sufferers, the actual allergens handled on site and the facility controls to prevent allergen cross contamination.
- Display all the allergens at the relevant places in the processing and storage areas for awareness among food handlers.



- Allocation of separate storage for allergen and non-allergens. If there is space issue then allergen items to be stored in separate racks.
- Dedicated scoops, utensils shall be used for specific allergens. Thorough cleaning should be there between allergic containing product and non-allergic containing product manufacture.

QFS/HC/POL/02



Mess Committee Policy Document

1. Introduction

The formation of a Mess Committee at Manipal University Jaipur is essential to ensure the efficient management of dining facilities and to cater to the diverse culinary needs of our students, staff, and faculty members. This policy document outlines the guidelines and procedures for the establishment, composition, and functioning of the Mess Committee.

2. Objective

The primary objective of the Mess Committee is to oversee the operations of dining facilities within the university campus, including cafeterias and dining halls. The committee aims to maintain high standards of food quality, hygiene, and affordability while accommodating the preferences and dietary requirements of the university community.

3. Composition of the Mess Committee

The Mess Committee shall be composed of the following members:

a. Chairperson:

The Vice-Chancellor or a designated representative shall serve as the Chairperson of the Mess Committee.

b. Administrative Representative:

A senior administrative staff member appointed by the Vice-Chancellor.

c. Faculty Representatives:

Two faculty members appointed by the Academic Council.





d. Student Representatives:

Four student representatives, including at least one undergraduate and one postgraduate student.

Student representatives shall be elected annually through a fair and transparent election process conducted by the Student Government or equivalent body.

e. Dining Services Manager:

The Dining Services Manager or a designated representative shall serve as the exofficio member.

f. Expert Consultant (Optional):

The Committee may choose to invite an expert in the field of culinary arts, nutrition, or food services to provide guidance.

4. Roles and Responsibilities

a. Chairperson:

Preside over Mess Committee meetings.

Ensure the committee operates efficiently and effectively.

b. Administrative Representative:

Provide administrative support to the committee.

Liaison between the committee and university administration.

c. Faculty Representatives:

Represent the academic community's interests and concerns.

Participate in decision-making regarding menu planning and quality control.

d. Student Representatives:

Voice the students' preferences and feedback.



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MANIPAL UNIVERSITY

Collaborate with dining services to address student concerns.

Assist in organizing periodic surveys to gather student feedback.

e. Dining Services Manager:

Implement the decisions of the Mess Committee.

Provide updates on food quality, hygiene, and financial matters.

Collaborate with the committee to address issues and concerns.

5. Meetings and Decision-Making

The Mess Committee shall convene regular meetings at least once a month during the academic year. Additional meetings may be scheduled as necessary. Decisions related to menu planning, pricing, quality control, and any significant changes in dining services shall be made by a majority vote of the committee members. In case of a tie, the Chairperson shall have the casting vote.

6. Transparency and Accountability

The Mess Committee is committed to transparency and accountability. Meeting minutes, financial reports, and decisions shall be documented and made available to the university community upon request. An annual report summarizing the committee's activities and achievements shall be published.

7. Amendments to Policy

This policy document can be amended by a two-thirds majority vote of the Mess Committee members. Proposed amendments shall be submitted in writing at least one month before a meeting where voting will take place.

8. Conclusion

The formation of the Mess Committee at Manipal University Jaipur ensures the provision of high-quality dining services that meet the needs and preferences of our diverse university community. This policy document serves as a guide for the establishment and functioning of the committee, fostering transparency, accountability in managing dining facilities within the university.

UA

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Number	Year	Major Revision
Version 3.0	2022	Food Menu Distribution
Version 2.0	2021	COVID 19 Regulations
Version 1.0	2020	Initial policy

Approval

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STANDARD OPERATING PROCEDURE

Quess Food Services (QFS) – Raw Material Specification

(For commonly consumed raw materials across QFS)

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DOCUMENT DETAILS

This is a new SOP made for Quess Food Services (QFS). Timely revisions going forward made will be updated in below list.



DOCUMENT CODING

QFS –Quess Services, PR- Procurement, Issue Number 01

Revision -0 – Any timely revisions made will follow a sequence of 1, 1.1 etc

Issue date --06-2021

EX - QFS/PR/01 Issue No 01 Revision -0 Issue date -10/09/2021

SL No	Description of document	Revision	Reason for change
1	New document specific to raw material specification for Procurement	0	



INTRODUCTION

Procurement team – To ensure best quality raw materials are sourced from reputed/well established suppliers confirming to availability across the Pan India. The procurement team shall ensure that vendor provide the samples where ever required when opting.

Corporate Chef and Food Safety - Quality team – Need to approve and verify certain brands if there is any change of brands as required.

GENERAL INSTRUCTIONS FOR VEGETABLES/FRUITS

- 1. Fruits and vegetables shall be sourced from authentic producers and suppliers. Their details shall be maintained to mitigate unauthorized or adulterated products in the supply chain.
- The vendors of fruits and vegetables shall be registered/licensed under Food Safety and Standards (Licensing and Registration of Food Business) Regulations 2011 & should share the license.
- **3.** All fruits and vegetables delivered shall be free from colouring matter, mineral oils or any other harmful chemicals.
- 4. Stickers without any relevant information such as traceability, grade, price, barcode, etc. should not be used directly on fruits and vegetables.
- 5. Eating, chewing, smoking, spitting shall be prohibited within the supplier premises especially while handling/transporting fruits and vegetables.
- 6. The transport vehicle used shall be free from pest, holes, debris of fruits and vegetables, objectionable odor and visible molds. It should be clean and hygienic
- 7. No vegetables/fruits to be received in gunny bags/disposable plastic covers/wrapped with newspaper/tied with jute threads/rubber bands.
- 8. Vegetables/Fruits to be received in clean and good condition crates.
- 9. As a thump rule vegetable/fruits size range shall be from medium to large size.
- 10. No rotten, damaged, inferior/low quality vegetables/fruits should not be given.
- 11. Vegetables/fruits should be free from worm/insect infestation, free from molds and soil /mud residues on the surfaces.
- 12. The mentioned specifications covers the generally used varieties of vegetables /fruits widely available and used across Pan India round the year. There could be regional/seasonal specific varieties available and it has to be discussed with Corporate Chef /Unit Chef/Unit Head before opting.



COMMONLY USED INDIAN VEGETABLES

SL No	GENERAL NAMES OF	REFERANCE IMAGE	REQUIRED SPECS.	UOM
	ITEM			
1	Beetroot		 Appearance - Should be dark purple with smooth skin, tender surface, free of scars. No leaves shall be attached to it. Ideal Size -Large to Medium (8 to 10 in a kg). 	Kg
2	Bitter Gourd /Karela		 Appearance - Bright green with smooth ridged surface. Should be firm & tender Should be free from moulds growth (whitish at the edges) Ideal size -Large to Medium (8-10 number/Kg) 20-25 cm length. 	Kg
3	Bottle Gourds/Lauki		 Appearance – Light green cylindrical with smooth skin with white inner flesh with smooth ridged surface. Ideal Size –Medium-Large - 300 g-500 g / 2-4 pieces/Kg 	Kg
4	Brinjal (Big/Bartha type)		 Appearance -Round /oval /pear shape, uniform dark purple, free of damage. Should have green stems with fine spines on it. Shall not have any spots/worms/pest infestation spots. Ideal Size - Large to Medium (350 -400 g/Piece or 3-4 pieces/Kg). 	Kg



5	Brinjal Long – (Green/ Purple)	 Appearance –Elongated and frim with uniform dark purple/green, free of damage. Should not be soggy and soft when touched. Should have green stems with fine spines on it. Should not have any spots/worm/pest infestation spots. Ideal Size – 15-20 cm in length 	Kg
6	Brinjal Round (Green/purple stripped)	 Appearance -Round /oval /pear shape, uniform dark purple/Green with distinguish strips on the surface, free of damage. Should have green stems with fine spines on it. Should not have any spots/worm/pest infestation spots 	Kg
7	Beans - French	 Appearance – Tender, light green in appearance, can be uneven. Should have green stems with fine spines on it. Should not have any spots/worm/pest infestation spots Snaps with a distinctive sound. Less fibre in the flesh and all beans should be of same maturity. Ideal Size – Large to Medium (350 -400 g/Piece or 3-4 pieces/Kg). 	Kg
8	Beans - Haricot	 Appearance - Bright green, thinner, long and straighter. Snaps with a distinctive sound. There should be no fibre in the flesh and all beans should be of same maturity. Should not have any spots/worm/pest infestation spots. Ideal size -10 -15 Cm in length. 	Kg



9	Cabbage		 Appearance - Heavy head, firm and solid. Colour may vary from lightest yellow green to dark green. Leaves should be crisp with no decay, worm holes or spots. Ideal size -Weight 300 - 400 g/Piece or 3-4 pieces/Kg 	Kg
10	Capsicum		 Appearance - Should have dark green shinny skin, tender, firm & no discoloration. Should not be too soft when touched. When split there should be no browning of seeds. Ideal size - Large to Medium (7-10 pc/Kg. 	Kg
11	Carrots Preferred varieties – a)Ooty b)Bengaluru c)Delhi d) Any regional specific variety		 Appearance - Should have a smooth skin, even conical shape, should break with a snap when bent. Colour can vary from deep rusty red to light orange. Ideal Size -Large to Medium (8 to 10 in a kg) 	Kg
12	Chayote- Chow	e presentaria.	 Appearance - Roughly pear- shaped, somewhat flattened and with coarse wrinkles Green skin fused with the green to white flesh, and a single, large, flattened pit Ideal Size- It can range from 12 to 20 cm in length. 	Kg
13	Colacasia/Arbi// Taro		 Appearance - brown fibrous exterior and a white, slightly slimy flesh inside. Shall carry unique mix of a deep nutty and a mild sweet taste. 	Kg
14	Cauliflower /Gobi		• Appearance - Bright white to creamy white flower with outer leaves fresh, crisp. Clean, heavy, firm and compact head	Kg



	2	 with outer leaves trimmed down to not more than 4 cm. No plant lice or smudgy/black spots should be found on the head. Ideal Size – Large to Medium (400 -600g/Piece or 2-3 pieces/Kg). 	
15	Cluster Beans/Guar Beans	 Appearance -Long and narrow with tapered ends. The smooth pods are green when young and have a slightly slimy, soft Shall have less fibre. Ideal Size –Small to medium averaging length 3-10 centimeters 	Kg
16	Coconut (Prefer old/aged one)	 Appearance - Dark brown husk covering. Presence of water should be felt on shaking. No offensive odour to be felt when opened. Ideal Size - Medium to Large - 400 -500 g/Piece. 	Per piece/ Number
17	Cucumber a)Green strip variety b) White strip skinned	 Appearance -Green/Whitish with strips, firmness and good even shape. Should not be over ripen/soggy/watery at the time o delivery. Ideal size -Large to Medium (6-8 number/Kg), 10-25 cm length 	Kg
18	Drumstick	 Appearance –Dark to Light Green, firmness long and pointed end. Should not be dried /ripen/soggy/watery. Ideal Size – 1-2 cm broad, 30- 50 cm in Length and weight from 80 to 120 g/each pod, 	Kg



19	Garlic (Whole/Peeled)		 Appearance - Well filled bulbs heavy in size, covered with dry outer sheet. Interior of good quality with large pods. Should not have sprouted shoot. Peeled Garlic - Appearance - Creamy and whitish. No any blacks spots and should not be soggy and watery when packed. No sprouted ones to be received 	Kg
20	Ginger		 Appearance - Large fresh even pieces with no mud/soil residue. Pulp should not be stringy or dry. Should have a clean surface with fine hair roots, interior should be moist with sharp smell. It should be properly matured. 	Kg
21	Green Chilly		 Appearance – Dark to light green with a smooth skin surface, having long even shape. Should snap when bent and seeds will be soft, white and not be over ripe. Ideal Size – 3-10 inches in length with uniformly narrow shape. 	Kg
22	Ivy Gourd / Tidily	orestiretime	 Appearance - Firm hard surface, bottle shape with pale yellow. When split should have bright white pulp and soft small seeds. Should not be soggy. To be free from moulds 	Kg
23	Lady s Finger/Bhindi		 Appearance - Should be 3-5 inches long with a bright green, smooth velvety surface, with fine hair like spikes on the surface. They should be crisp and tips spap off when bent 	Kg



		 Should be free from infestation/any black spots. 	
24	Lemon	 Appearance - Light to bright yellow and firm, heavy for its size. Should be resilient to thumb pressure No scars, browning, spots on the skin to be apparent. Should not be hard and immature size Ideal Size - Medium to large size 20-25 pcs in Kg or 30-45 g/Piece 	Kg
25	Onions (Red)	 Appearance - Dry surface, white/pinkish, pulpy internally, sharp taste. Firm bulb with clean skin of pinkish. No stems/sprouted shoots. Moisture at neck indicate interior decay. No black spots on the surface. Ideal size -Large to medium (8 to 10 in a kg) 	Kg
26	Pointed Gourd/ Parwal	 Appearance - Firm hard surface, bottle/oval shape with green. When split should have bright white pulp and soft small seeds. Should not be soggy. To be free from moulds. It is similar to Ivy Gourd/Thildli but much bigger in shape/size. 	Kg
27	Pumpkin/Kaddhu	 Appearance -Slightly ribbed skin, colour might vary from deep yellow to orange or Creamy green outer skin with bright pulp. There should be no spots or discoloration. 	Kg
28	Potato/Aloo	 Appearance -Dry with preferably dark brown skinned (old/aged potatoes). Should not have eyes, spots, sprouted, worm infested and greening. Free from mud/soil residues. 	Kg



		 Ideal Size – Large to Medium (7-10 number/Kg) 	
29	Ridge Gourd/Tori	 Appearance – Skin color varies from light green and dark-green. Free from mud/soil residues and soft spots, darkened areas on the surface. White spongy flesh with soft seeds. Should be with green fresh stem Should not have bitter taste. Ideal Size – Large to Medium - 5-7 number/Kg or 200-300 g/piece 	Kg
30	Snake Gourd/ Chichinda	 Appearance – Elongated, slender, curved. The gourd can be straight or twisted curls and spirals. Can have waxy green skin or striped with a lighter shade of green. Ideal Size -range from medium to large ,upto 40-45 centimeters in length with minimum requirement of 15-20 centimeters in length 	Kg
31	Shallots	 Appearance - shallot, which is a type of onion, looks like a small, elongated onion but with a milder flavor and a hint of garlic. Typically, it is a small bulb with copper, reddish, or gray skin 	Kg
32	Tomatoes Preferred varieties a)Farm type round/oval shape b) Any regional specific variety	 Appearance - Mature but not over ripe and soft. Colour should be bright red free from decay, growth cracks. Should not have worm holes, mould or wateriness. Uniform shape (oval/round) large size, smooth, firm and pulpy. It should have lesser seeds and not sour in taste. 	Kg



		 Ideal size -Large to medium (10-12 in a kg) 	
33	Radish/Mooli	 Appearance - Skin creamy white, with tapering tail end. Tender and free from mud/soil residues. Should not have leaves and any black spots on the surface. Ideal Size - Should be 18-30 cm in length, Large to medium (10-12 in a kg). 	Kg
34	Round Melon/Apple gourd/Tinda	 Appearance - Light green firm, crisp skin, small seeds. Bright white pulp. Oval in shape 	Kg
35	Sweet Potatoes/ Shakarkand	 Appearance - Clean dry surface, no incrusted soil residues. Pinkish, with tapering tail, No irregular shape Ideal Size - Large to medium (7-9 number/Kg) 	Kg
36	Yam (Elephant) /Survan	 Appearance - Dark brown, almost black skin, its beige colored flesh has a texture like that of a sweet potato, crisp and firm. Should have an earthy flavor that can also be nutty, Clean dry surface, no incrusted mud/soil residues. Ideal Size - Large to medium of one vam -1 to 2.5 Kg/Piece 	Kg

Reference – 1) www.iihr.res.in. 2) Foodsafetyhelpline.com

QFS/PR/01 Issue No 01 Revision -0 Issue date -10/09/2021



COMMONLY USED EXOTIC VEGETABLES

SI NO	COMMON NAME	IMAGE	SPECIFICATIONS	UOM
1	Cabbage - Chinese		 Appearance - Slender cylindrical head, light/parrot green with whit stalk/base. Should be free from worms/insects interiorly Ideal size - 12 inch (30 cm) length 	Kg
2	Cabbage -Red		 Appearance - Heavy head, firm and solid, colour may vary from light purple to deep reddish purple. Leaves should be crisp with no decay, worm holes or spots. Ideal size -Weight 300 400 g/Piece or 3-4 pieces/Kg 	Kg
3	Broccoli		 Appearance - bright green, fresh and free from yellow florets. Clean, heavy, firm and compact head with outer leaves trimmed down to not more than 4 cm. Should be free from worms/insects. Ideal Size - 150- 200 g one piece 	Kg
6	Celery		 Appearance - Clean, crisp, brittle stalks with bright green leaves, length should be 40 cm approx. Stalks should not be wilted, spotted or soft. They should be in good thickness with straight stems. 	Kg



5	Mushroom Button variety	•	AppearanceFirmwhite stems properlytrimmednotexceeding2cmsinlength.Colourcanbefromwhitetolength.Colourshouldnotbemisshapedordark,bruised,mouldy,orsoakedinweight.ShouldShouldnotbemuddy/withoutsoilresidues.Ideal requirement - Packet of 200 g -250 g	Kg/ Packet
6	English Cucumber	•	Appearance -Long, thin, shiny in nature, straight & cylindrical shape. The skin shall be dark green and smooth. It can be twice the length of a regular cucumber; Ideal Size -10-12 inch long, Medium size -10- 12 no /Kg.	Kg
7	Lettuce	•	Appearance - Colour could vary from reddish to green, with smooth texture of leaves. Should be free from any black spots/worn infestation	Bunch/Kg
8	Parsley	•	Appearance - Should be bright green with delicate fragrance free from dirt, dust and yellow leaves.	Bunch/Kg



9	Pepper - Red/Yellow Capsicum		•	Appearance yellow /red wit skin, firm tend & no discol When split should be no br of seeds. Ideal size – L Medium (7-10	-Dark th shiny er crisp oration. there rowning arge to pc/Kg.	Kg
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COMMONLY USED INDIAN GREEN LEAFY VEGETABLES

MANDATORY REQUIREMENTS

- 1) Should be brought in crates with trimmed roots and avoid the mud/soil particles while delivering to which ever green leafy required.
- 2) Not to be supplied in disposable plastic bags/covers/wrapped in newspaper/gunny bags
- 3) No rubber band/jute thread to be tied to the bunches.

SI	COMMON	IMAGE	SPECIFICATIONS	UOM
1	Coriander Leaves		 Appearance - Bright green, fresh, wide leaves, standing leaves not wilted with fresh aroma. Should be without flowers and trimmed of any root. Minimum 100 g in a bunch 	Bunch/ Kg
2	Curry Leaves	A STATE	 Appearance - Leaves must be wide with a fresh aroma, mature. Leaves to be free of black spotting, white patches and any worm /pest infestation. Should be given in uniform size/trimmed with proper main stem in it 	Bunch/ Kg
3	Dil leaves		 Appearance - Bright green, fresh, standing leaves not wilted with fresh aroma. The leaves to be soft and reminiscent of small needles/fibre like which are arranged into open cone. Should be without flowers (white/yellow) and trimmed of any root. Minimum 100 g in a bunch 	Bunch /Kg
4	Methi leaves		 Appearance - Fresh wide leaves green, slender leaves, minimum stem, no browning or wilted leaves. 100 g minimum weight of bunch 	Bunch/ Kg



5	Mint	 Appearance - Wide dark green leaves and not wilting. There is sharp aroma when leaf is crushed. Stems should be trimmed above the roots and mint should not have been soaked in water to increase weight. Minimum 100 g each bunch. 	Bunch /Kg
6	Palak/Spinach	 Appearance -Bright green, triangular or ovate and flat leaves with larger leaves at the base of stem. Should be free from black spots/worm infestation in the leaves. Minimum 100 -200 g each bunch 	Bunch / Kg
7	Onion -Spring	 Appearance - Even spherical or oval shaped bulb with juicy pulpy leaves. Colour should be white without traces of purple except on stems. Leaves should be unbroken, bright green with up to 7-10 Inches 	Bunch /Kg

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COMMONLY USED FRUITS

SI NO	COMMON NAMES	PREFERED VARITIES	SPECIFICATIONS	UOM
1	Apple -	a)Shimla/Kashmiri b)Fuji/Gala/Washington c)Green apple d) Any other local variety apple specific to geographical region need to be discuss and approval needed from Corporate Chef/Unit Chef/Unit Head Prefer Grade A & B types based on Unit requirement	 General Appearance - Bright brick red /Green in colour without any discoloration or cracks. Crisp pulp with typical flavour, No any bruises or injury. No any worm hole. Ideal size - 5-7 in a kilo. 	Kg
2	Avocado	Nil	 General Appearance Mid -dark green skin Oval to round oval, slightly pear shaped, Fruit needs to be clean, bright, fresh and firm, even colour and uniform shape. Ideal size requirement - Medium size, 4-5 in a kilo. 	Kg
3	Banana - Chef/Unit Chef	a)Yellaki b)Robusta c) Cavendish d) Rastali e)Malbhog f)Poovan g)Karpoorvali	 General Appearance - Should be yellow in colour, skin thin, no bruises, blemishes or black patches. Flesh should be soft yet firm and sweet Ideal size -Varies from each variety. Should be even & medium size. 	Kg
4	Grapes	Seeadless (Green /Black)	 Colour purple black, full bunches/Colour yellow to green, full bunches. Each bunch of even conical shapes, firmly attached to the stem. No loose squashed, over ripe brown/green grapes to be accepted. 	Kg



			 Skin should be thin. Pulp juicy and sweet. Ideal weight of each bunch - min 100 to 250 g
5	Kiwi	Nil	 Appearance - About the Kg size of a chicken egg, with brown fuzzy skin, vibrant green or yellow flesh, small black seeds and a tender white core. Ideal weight of per kiwi- min 75-90 g
6	Mangoes (Seasonal)	a)Alphonso b)Bagepalli c)Dusshera d) Raspuri e) Langara	 Appearance - Bright orange/yellow/green with thin skin, smooth surface, no blemishes, firm and resilient to gentle pressure. Should have a typical flavour, very sweet and strong, free from any whitish powder on its surfaces. Ideal size varies from varieties -3-7 in a Kg.
7	Musk melon	With Strip –Green type Without strip -Whitish	 Appearance - ribbed, tan skin and a sweet, musky flavor and aroma. Color may vary from whitish to green stripped appearance, Smooth surface, firm and resilient to gentle pressure. Should be free from any whitish powder on its surfaces. Ideal size of of one fruit 500 g upto 1.2 Kg
8	Oranges (Seasonal)	a)Coorg b)Nagapuri c)Kamala	 Bright orange colour, not over ripe, semi green, acceptable off season. No discoloration or browning or dry patches. Spherical, firm and



			•	resilient to thumb pressure. Squashed not to be accepted. Should be ripe, sweet and juicy. Approx. 5 -7 number / kg.	
9	Рарауа	a)With seed b)Seedless	•	Orange yellow colour, traces of green permitted. Softness at the apex of the fruit. Interior should have a bright orange colour without orange traces Ideal weight - 1 to 1.5 kilo per no	Kg
10	Pineapple	Nil	•	Appearance greenish- yellow from outside with green-gray to yellow as it ripens, so as a general rule, the more yellow a pineapple's exterior is, the riper the fruit will be. Cylindrical in shape with diamond pattern skin and spine, cactus like leaves and a sweet, yellow, tangy fiber like flesh that is quite juicy with a characteristic fragrance. Ideal weight of one fruit -750 to 900 g	Кд
11	Pears	Indian variety US variety	•	Clean, bright and typically colour for the variety, soft, juicy flesh and good flavour, not mis-shaped, wrinkled or soft to touch. Flesh to be firm without scars, dents insect or worm injury Approx 5-6 number / kg,	Kg


12	Pomegranate/ Anar	Nil	 Ideally pomegranate to be about 5–12 cm (2–5 inches) in diameter. Red, round and looks kind of like a red apple. The skin should be thick and loose and dry. Average weight -200-250 g/piece 	Kg
13	Sweet lime or Moosumbi	Nil	 Bright greenish yellow colour, thin skin, sweet juice. Should be firm and but not raw/hard. Approx5-6 number / kg, 	
13	Sapoto/Chiku		 Dark brown, thin skin, firm surface, no bruises or soft patches, Pulp should be dark brown. Should not be very hard like ball and also soggy when delivered. Approx. 8 to10 number / kg 	Kg
14	Water melon	a) Kiran –Available throughout the year b) Green strip (Seasonal)	 Smooth white rind which is yellow at maturity. Flesh must be thick, greenish, fine grain, juicy and sweet. Sour smell indication of over ripeness. Ideal Size - One fruit ideally be 1 kg and above. 	Kg

QFS/PR/04 Issue No 01 Revision -0 Issue date -10/09/2021



COMMONLY USED DAIRY BASED PRODUCTS

Below is the listed brand of commonly used brands which compile to FSSAI requirements.

- 1) Nandini /Heritage/Dodala/ Milky mist / Cavin Care –Mainly in southern region of India.
- 2) Amul/ Mother Dairy/ President Throughout India.
- 3) Verka-North Region of India.
- 4) Govardhar South and Western region of India.
- 5) Dreamery Throughout India.

General instructions

- To ensure FSSAI licence copy is shared.
- At the time of delivery the supplier/distributer should ensure that delivered products have proper visible labelling with mfg. and expiry date.
- Milk/milk product testing reports to be shared biannually or as and when demanded.
- A copy certification of packing material details should compile to FSSAI packing & labelling Regulations 2011.1.12 to be shared.

SI	ITEM	TYPES	REQUIRED SPECIFICATION	
NO				UOM
1	Butter	a) Low Fat b) Salted c) Unsalted	 "Butter" means the fatty product principally in the form of an emulsion of the type water-in-oil derived exclusively from milk or milk products, or both. Butter must arrive in original packing and should not have been found tampered or moist packing and soggy at the time of delivery. 	Packet in g/Kg
2	Butter	Chiplet	 Butter Chiplets must arrive in original packing and should not have been found tampered or moist packing 	Chiplet of 5 g



3	Cheese	Slices/ Block/ Mozzarella (Block type	 Cheese slices/blocks must arrive in original packing and should not have been found tampered or moist packing. Shall be creamy brown to whitish in appearance No offensive odour should be felt. Firm texture and shall not be soggy/watery at the time of delivery 	
4	Paneer	Plain	 Paneer means the product Packet obtained from any variant of milk, with or without added milk solids, by precipitation with permitted acidulates and heating. Permitted ingredients in it - Acidulants such as lactic acid, citric acid, malic acid, vinegar, glucono delta lactone, sour whey. Paneer packet must arrive in original packing and should not have been found tampered or moist packing. No offensive odour should be felt. Paneer to be creamy white and should not crumble on cutting 	
5	Tofu –Soy Paneer	Soy based –Fermented	 Should be made from soya milk. Colour should be creamy white and should not crumble on cutting. Packet in g/kg 	
6	Cream	a) Fresh b) Whipping Cream	 Cream defined in fssai Packet regulation & refers to Cream, in Lt in Lt Reconstituted cream, "Prepared creams" "pre-packaged liquid cream, "whipping cream" "cream packed under pressure" "whipped cream "fermented/cultured/sour cream" "acidified cream" Should not have curdle texture when opened 	



6	Milk	a) Toned milk - Min 3% fat content b)Double toned milk Min 1.5% fat c)Skim Milk not more than 0.5% fat content	•	.The milk should be fresh, clean only from dairy cows/buffalo, free from objectionable odour or flavour. The packets should not be bloating at the time of delivery. Ideal Receiving temperature - at 5°C or less.	Packet in ml/Lt
7	Curd	Regular usage	•	Curd - Microbes Cultures specified as per FSSAI - Symbiotic cultures of Streptococcus thermophiles and Lactobacillus delbruecki sub sp. Bulgaricus. Shall have smooth texture and no watery. No leakage/bloating in the packet.	Packet in ml/Lt
8	Curd	Cup type/Set Curd	•	Curd - Microbes Cultures specified as per FSSAI - Symbiotic cultures of Streptococcus thermophilus and Lactobacillus delbrueckii sub sp. Bulgaricus. Shall be thick and smooth texture. No leakage/bloating in the cups. There shall not be any opening in the seal.	
9	Ghee	Regular usage	•	The ghee should be fresh, clean only from dairy cows, free from objectionable odour or flavour. Should have smooth /crystalline texture and whitish to mild yellow appearances.	Packet in ml/Lt
11	Khova/ Mawa	Regular usage	•	It shall be free from added starch and added sugar. Raw materials- Milk and milk powders, cream and cream powder and milk fat products. Should have smooth texture with creamy white yellow	Packet in g/Kg

Reference - www.foodsafetyhelpline.com

QFS/PR/05 Issue No 01 Revision -0



COMMONLY USED SEA FOODS BASED PRODUCTS

Below are the listed sea foods commonly used across Pan India.

Fish – Basa, Bangda, Pomfret, Seer

Any other local variety apart from this specific to geographical region same need to discuss and approval needed from Corporate Chef/Unit Chef/Unit Manager

Prawns – Tiger prawns.

General instruction

- To ensure FSSAI licence copy is shared.
- At the time of delivery the supplier/distributer should ensure that delivered products have proper visible labelling with mfg. and expiry date.
- Testing reports to be shared biannually or as and when demanded.
- A copy certification of packing material details should compile to FSSAI packing & labelling Regulations 2011.1.12 to be shared.

SI	ITEM	ТҮРЕ	REQUIRED SPECIFICATION	
NO				UOM
1	Basa	Frozen	 The product shall be free from foreign materials such as sand, dirt and insects, objectionable odour, or flavour. Display on the label must mention that the product (name) shall be stored at -18°C or lower. 	Kg
2	Bangda	Whole & Fresh	 The product shall be free from foreign materials such as sand, dirt and insects, objectionable odour, or flavour. Should be 2 days aged after catching. Ideal size -10-12 piece/Kg 	Kg
3	Pomfret	Whole & Fresh	 The product shall be free from foreign materials such as sand, dirt and insects, objectionable odour, or flavour. Should be 2 days aged after catching. Ideal size -7-10 piece/Kg 	Kg
4	Seer	Sliced & Fresh	 The product shall be free from foreign materials such as sand, dirt and insects, objectionable odour, or flavour. Should be 2 days aged after catching. 	Kg



			• Ideal size -80-1	00 g/slice	
5	Prawns	Nil	 The product sha such as sand, di odour, or flavou Display on the l product (name) 	all be free from foreign materials rt and insects, objectionable ur. abel must mention that the shall be stored at -18°C or lower	Kg

QFS/PR/06 Issue No 01 Revision -0



COMMONLY USED MEAT BASED PRODUCTS

Below are the listed commonly used meat based products across Pan India.

Meat – Mutton, Poultry – Chicken & Egg

General instruction

- To ensure FSSAI licence copy is shared.
- At the time of delivery the supplier/distributer should ensure that delivered products have proper visible labelling with mfg. and expiry date.
- Testing reports to be shared biannually or as and when demanded.
- A copy certification of packing material details should compile to FSSAI packing & labelling Regulations 2011.1.12 to be shared.

SI	ITEM	TYPES	REQUIRED SPECIFICATION	
NO				UOM
1	Mutton/ Goat meat	Fresh	 The product shall be free from foreign materials such as sand, dirt and objectionable odour, or flavour. Can be with bone/boneless. Flesh red colour in appearance, less of fat. 	Kg
2	Chicken	a)Broiler b)Country Shall be fresh	 The product shall be free from foreign materials such as sand, dirt and objectionable odour, or flavour. Neck and head to be avoided. Whole chicken - 900 g -1.2 Kg, Skin should be uniform without any bruises. Without blood clot and physical injury. If pieces -40-50 g or as per site requirement 	Kg
3	Egg –	Hen	 Eggs should be fresh, clean with unbroken shell and white in colour cell. Should be free from blood spots/feather residues/faecal matters. Ideal requirement - does not exceed 3mm in diameter Approximately. 50-60 g/Egg At the time of delivery egg should not be more than 2-4 day. 	Number

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COMMONLY USED FROZEN PRODUCTS

Below are the listed commonly used frozen products used across Pan India.

- 1) Frozen peas
- 2) Frozen French Fries/potato wedged
- 3) Frozen American corn

General instruction

- To ensure FSSAI licence copy is shared.
- At the time of delivery the supplier/distributer should ensure that delivered products have proper visible labelling with mfg. and expiry date.
- Testing reports to be shared biannually or as and when demanded.
- A copy certification of packing material details should compile to FSSAI packing & labelling Regulations 201.1.12 to be shared.

SI	ITEM	PREFERED	REQUIRED SPECIFICATION	
NO		BRANDS		UOM
1	Frozen Peas	Safal preferred one Any brand compiling to FSSAI standards	 The product shall be free from foreign materials such as worm/any physical pieces/any odour Uniform green colour Packets at the time of delivery shall not be soggy/watery and should be firm 	Kg
2	Frozen French fries/ Potato wedges	a)Mc cain b)Sumeru c)Any brand compiling to FSSAI standards	 The product shall be free from foreign materials such as worm/any physical pieces/any odour Uniform colour Packets at the time of delivery shall not be soggy/watery and should be firm 	Kg
3	Frozen corn	a)Safal b)American garden c)Any brand compiling to FSSAI standards	 The product shall be free from foreign materials such as worm/any physical pieces/any odour Uniform golden yellow colour Packets at the time of delivery shall not be soggy/watery and should be firm 	Kg

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COMMON SPECIFICATIONS OF CEREALS/PULSES & OTHER DRY GROCERIES

Food Hygiene - The products shall be prepared and handled in accordance with the guidance provided in the Schedule 4, of the Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations, 2011 and any other such guidance provided from time to time under the provisions of the Food Safety and Standard Act, 2006.

The product shall conform to the microbiological requirement given in Appendix B of the Food Safety and Standards (Food Products Standards and Food Additives) Regulation, 2011

Packaging & Labelling - The product covered by this Standard shall be labelled in accordance with the Food Safety and Standards (Packaging & Labelling) Regulation, 2011

SL	ITEM	TYPES/VARITIES	SPECIFICATION / BRAND	UOM
	DESCRIPTIO			
	N			
Α	CEREALS/PULS	SES		
1	Rice -	a) Sona masuri b) Basmathi c) Bullet rice d) Red Rice e) Jeera rice f) Brown rice Commonly preferred varieties	 Free from waste part (husk), foreign particles and infestation. No mixing of the other type of grains. No broken pieces Free from weevils/any worms Specification for Basmathi - Ideally Ideally 9 months to 2 year aged rice. Basmati rice shall possess natural fragrance, characteristic of basmati rice both in raw and cooked forms. It shall be free from artificial coloring, polishing agents and artificial fragrances. It shall also be free from obnoxious smell. 	Pack of 25 Kg
2	Flatten Rice flake/Poha	Depending on menu requirement the flakes thicknesses may vary (flat/thin/thick).	Also called Poha is rice that has been parboiled, rolled, flattened and then dried to produce flakes.	Pack of 5-10 Kg
			Color -Greyish white in color	



3	• Rava	Sooji Rava. Lapsi Rava Bansi Rava - Rice Rava- As the name says, it is made using rice grain	 Colour -May vary from whitish/creamy/light brown colour. Free from white worms/weevils means the product prepared from clean wheat free from rodent hair and excreta by process of grinding and bolting. It shall be free from musty smell and off-odor and shall be creamy yellow in color. 	Pack of 5-10 Kg
4	Vermicelli/ Semiya	Wheat/Ragi/Rice based	 Should be stiff and firm, hard and not broken pieces. Colour –Brownish to white 	Pack of 1-5 Kg
5	Toor Dhal	Nil	 Free from waste part (husk), foreign particles and infestation like black spots. No mixing of the other type of grains. No broken pieces. Colour should bright yellow. 	Pack of 5-10 Kg
6	Moong Dhal	Spilt	 Free from waste part (husk), foreign particles and infestation. No mixing of the other type of grains. Colour should bright yellow. 	Pack of 5-10 Kg
7	Moong Dhal	Whole	 Free from waste part (husk), foreign particles and infestation. No mixing of the other type of grains. Colour should be bright green/Black 	Pack of 5-10 Kg
8	Chana Dhal	Nil	 Free from waste part (husk), foreign particles and infestation like black spots. No mixing of the other type of grains. No broken pieces. Colour should bright yellow. 	Pack of 5-10 Kg
9	Red Chana	Nil	 Free from waste part (husk), foreign particles and infestation like black spots. No mixing of the other type of grains. No broken pieces. Colour should dull red to dark red 	Pack of 5-10 Kg



10	Urad Dhal	Whole/Split	•	Free from waste part (husk), foreign particles and infestation like black spots. No mixing of the other type of grains. No broken pieces or powdery form. Colour should dull whitish black skins covering creamy white interiors	Pack of 5-10 Kg
11	Moth Beans /Matki –	Whole	•	Free from waste part (husk), foreign particles and infestation like black spots. No mixing of the other type of grains. No broken pieces or powdery form. Colour ranges from light brown through to tan. The inner part of the bean is yellow	Pack of 5-10 Kg
12	Masoor Dhal	Nil	•	Free from waste part (husk), foreign particles and infestation like black spots. No mixing of the other type of grains. No broken pieces or powdery form. Colour ranges from light orange to yellow.	Pack of 5-10 Kg
13	Red/white Kidney beans	Commonly called as Rajma bean used in Rajma preparation.	•	It should be dry, hard, and shiny/dull without any pest infestation. Shape – Kidney shape Colour –Bright red to white	Pack of 5-10 Kg
14	Dry Peas/Vatana -	White/Green	•	Free from waste part (husk), foreign particles and infestation. No mixing of the other type of grains. No broken pieces. Colour should dull green to white	Pack of 5-10 Kg
15	Chick Peas / Kabuli channa	Nil	•	Free from waste part (husk), foreign particles and infestation. No mixing of the other type of grains. No broken pieces. Colour should whitish	Pack of 5-10 Kg



В	FLOURS			
16	Atta/Whole wheat flour	Brands preferred 1) Ashirwad 2) Ice/Orange 3) Pillsbury 4) Samrat 5) LT foods Any local/regional brand which complies to FSSAI standards	 Colour –Brownish, Smooth texture. Not adulterated with maida. means the coarse product obtained by milling or grinding clean wheat free from rodent hair and excreta 	Kg
17	Maida/Plain flour/All- purpose flour	Any local/regional brand which complies with FSSAI standards	 Maida should have a soft, creamy appearance. Should not have rancid/any offensive odour. Free from rodent hairs/excreta. Any local/regional brand which complies with FSSAI standards. 	Kg
18	Rice flour	Any local/regional brand which complies with FSSAI standards	 Rice flour shall have mild taste, sand-like texture. Should not have rancid/any offensive odour. Free from rodent hairs/excreta. 	Kg
19	Ragi flour	Any local/regional brand which complies with FSSAI standards	 Ragi flour shall be free from added coloring matter, flavoring substances, molds, weevils, obnoxious substances, discoloration, and all other impurities It shall be free from rodent hair and excreta. 	Kg
20	Corn flour/Makki flour	Any local/regional brand which complies with FSSAI standards	 It shall be odorless and white to pale yellow color free flowing powder. It shall contain no added color, flavors or other chemicals. It shall also be free from dirt, insects, larvae and impurities or other extraneous matter. 	Kg
21	Gram flour/Besan	Tata Bhagyalakshmi Any local/regional brand which complies with FSSAI standards	 It shall be odorless/free from rancid odor and yellowish in appearance. It shall contain no added color, flavors or other chemicals. It shall also be free from dirt. 	Kg



			insects, larvae and impurities or other extraneous matter	
С	NUTS			
22	Cashew nut	Whole 2 piece 4 Piece Powder Any local/regional brand which complies with FSSAI standards	 Cashew kernels shall be free from any rancidity, shell liquid, foreign smell and/or taste, living insects, mites and molds. It shall also be free from any, dead insects, rodent contamination, insect fragments and damage caused by insects, mites or other parasites visible to the naked eye. 	Кд
23	Charmagaz	Any local/regional brand which complies with FSSAI standards	 Free from waste part, foreign material and infestation. . No broken pieces and no powdery 	Kg/g
24	Dates	Seedless Any local/regional brand which complies with FSSAI standards	 Free from waste part, foreign material and infestation. Shall not contain any artificial colour and shall not be shiny in nature. 	Kg/g
24	Walnut -	Any local/regional brand which complies with FSSAI standards	Free from waste part, foreign material and infestation.	Kg/g
25	Almond	Any local/regional brand which complies with FSSAI standards	Free from waste part, foreign material and infestation.	Kg/g
26	Pista	Salted/Unsalted Any local/regional brand which complies with FSSAI standards	 The product shall be free from foreign matter, living insects, mold, dead insects, insect fragments and rodent contamination. The product shall be free from food additives. 	Kg/g
27	Raisins	1st quality, big size 0.450 gms	 Raisins means the product obtained by drying sound, clean grapes of proper maturity belonging to Vitis vinifera L. The product may be washed, with or without seeds and stems and may be bleached with Sulphur Dioxide. 	• Kg/g



			•	The product shall be free from foreign matter, living insects, mold, dead insects, insect fragments and rodent contamination. The product shall have uniform color, pleasant taste and flavor, free from odor and taste and evidence of fermentation. The product shall be free from added coloring matter Moisture (m/m) Not more than 15.0 percent	
D	OTHERS		•		•
28	Sauf	Lucknow variety Badi sauf Regular sauf	•	It shall have characteristic aromatic flavor and shall be free from mustiness. It shall be free from mold, living and dead insects, insect fragments, and rodent contamination. The product shall be free from added coloring matter and harmful substances.	Kg/g
29	Custard Powder	Any local/regional brand which complies with FSSAI standards	•	Custard powder means the product obtained from maize (Zea mays L.) or sago/tapioca with or without the addition of small quantities of edible starches obtained from arrowroot, potato or jawar (sorghum vulgare) and with or without the addition of edible common salt, milk and aluminous matter. It may contain permitted colors and flavors. It shall be free from any other foreign matter. It shall be the form of fine powder, free from rancidity, fermented and musty odor.	Kg
30	Jaggery	Round/Square shaped/Bucket variety But not be powdery/whitish at the time of receiving	•	Jaggery means the product obtained by boiling or processing juice pressed out of sugarcane or extracted from palm, date palm or coconut palm.	Кg



		Any local/regional brand which complies with FSSAI standards	 It shall be free from substances deleterious to health. Colour -Dull brown to dark brown Free from any infestation. 	
3	1 Salt –	Powder Crystalline /rock Iodised Tata I Shakti Annapoorna Ashrivada Salt must be free flowing	 Iodized Salt means a crystalline salt, white or pale, pink or light grey in color, free from contamination with clay, grit, and talc and other extraneous adulterants and impurities. Iodine -content Not less than 30 parts per million on dry weight basis Sodium Chloride (Nacl) Not less than 96.0 per cent by weight on dry basis. 	Кд
3	2 Salt	Black/powder form	• Black in colour and free from adulteration.	Kg
3	3 Sugar	Size of granules must be small to medium Any local/regional brand which complies with FSSAI standards	 White colour, particles with uniformity and without any foreign matter. It shall be free from dirt, filth, iron filings and added coloring matter. 	Kg
3	4 Coconut powder	Any local/regional brand which complies with FSSAI standards	 No offensive odour/rancid odour 	Packet/Kg
3	5 Honey	Any local/regional brand which complies with FSSAI standards	 Honey means the natural sweet substance produced by honey bees from the nectar of blossoms or from secretions of plants which honey bees collect, transform store in honey combs for ripening. When visually inspected, the honey shall be free from any foreign matter such as mold, dirt, scum, pieces of beeswax, the fragments of bees and other insects and from any other extraneous matter. 	Bottle/Ml
3	6 Pickle	Regional /Unit Specific	• Shall compile to FSSAI food grade regulations.	Bottle/Kg



			•	Avoid pickle with bottle/carton box based packing.	
37	Kewra water	Shall compile to FSSAI food grade regulations.	Nil		Bottle/Ml
38	Rose water	Dabur	•	Shall compile to FSSAI food grade regulations and no cosmetic type to be opted	Bottle/ml
39	Ground nut	No small size. Should be of even regular medium to large size seeds	•	No offensive odour/rancid odour, no powdery. Free from worms/weevils Shall compile to FSSAI food grade regulations	Kg
40	Tamarind	Deseeded/Pulp Shall compile to FSSAI food grade regulations	•	Preferably deseeded, Black and shall not be sticky.	Kg
41	Coffee powder (with Chicory mixture)	Bru/Nescafe/Cottas Malgudi/LOI Shall compile to FSSAI food grade regulations	•	Coffee — Chicory Mixture means the product prepared by mixing roasted and ground coffee and roasted and ground chicory and shall be in a sound, dry and dust free condition with no rancid or obnoxious flavor. It shall be in the form of a free flowing powder having the color, taste and flavor characteristic of coffee - chicory powder. It shall be free from any impurities and shall not contain any other added substance. The coffee content in the mixture shall not be less than 51 per cent by mass	Kg
42	Tea leaves	Kannan Devan Broke Bond Taj Mahal Red Labels 3 Roses Tata -Agni	•	TEA means tea other than Kangra tea obtained by acceptable processes, exclusively from the leaves, buds and tender stems of plant of the Camellia sinensis (L) O. Kuntze. It may be in the form of black or oolong tea. The product shall have characteristic flavor free from any off odor, taint and mustiness. It shall be free from	Кд

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			 living insects, molds, dead insects, insect fragments and rodent contamination visible to the naked eye. The product shall be free from extraneous matter, added coloring matter and harmful substances. Tea may contain "natural flavors" and "natural flavoring substances" which are flavor preparations and single substance respectively, acceptable for human consumption, obtained exclusively by physical processes from materials of plants origin either in their natural state or after processing for human consumption in packaged tea only. It may also contain 0.2 per cent Pectinase enzyme 	
43	Tea Bags – Flavours as per requirement of individual sites	Lipton Taj Tetley Typhoon	Staple free bags	Boxes/Packs



SPICES MASALA/POWDER/WHOLE

Preferred brands are mentioned in the list - Any other local brands apart from these need to be approved from Corporate Chef/Unit Chef/Unit Manager

As a thumb rule whole spices shall be free from adulteration/foreign residues/soil/worms/ mold, living and dead insects, insect fragments, and rodent contamination.

Supply shall be made with proper labeling details compiling to FSSAI standards of packing and with clear mention of date of packing/manufacturing and best before date (Ideally 6 months to 12 months)

The packing materials shall be air tight for retention of aroma and free from any cut/holes/leakage at the time of receiving.

Items shall not be supplied in disposable plastic bags/wrapped in newspaper/Jute bags.

Si no	Name	Prefer Brands	Specification
1	Amchur powder	1) MTR 2) Everest 3) Eastern 4) MDH 5) Teju	 Means the powder obtained by grinding clean and dried mango slices having characteristic taste and flavour. Shall be free from musty odour and objectionable flavour, rodent contamination, mould, fungus and insect infestation, extraneous matter and added colouring, flavouring matter. Shall also be free from deleterious substances injurious to health. It shall not contain any preservative except edible common salt which may be added to the extent of 5 per cent by weight on dry base.
2	Asafoetida /Hing	1) LG 2) Everest 3) Eastern 4) MDH 5) MTR	 Shall not contain any colophony resin, galbanum resin, ammoniaccum resin or any other foreign resin. Free from soap stones or other earthy materials Soap stone, foreign resins It may contain any cereal like rice/maida flour in it as part of processing.

SPICES MASALA/POWDER



3	Black pepper powder	1) MTR 2) Everest 3) Eastern 4) MDH 5) Teju	 Black pepper powder means the powder obtained by grinding dried berries of Piper nigrum L without addition to any other matter. Shall be free from mould, living and dead insects, insect fragments, and rodent contamination. The powder shall be free from added colouring matter, mineral oil and any other harmful substances
4	Coriander/ Dhaniya powder	1) MTR 2) Everest 3) Eastern 4) MDH 5) Teju	 The powder must be yellowish to reddish brown in colour with characteristic odour and flavour and must be free from off flavour and mustiness. It must be free from mould, living and dead insects, insect fragments, and rodent contamination, added colouring matter, foreign vegetable matter and other harmful substances. Free from Cow dung powder, Common salt, and sawdust.
5	Jeera/Cumin – Powder	 MTR Everest Eastern MDH Teju 	 It shall have characteristic aromatic flavour free from foreign odour and mustiness Shall be free from mould, living and dead insects, insect fragments, and rodent contamination.
6	Kasuri Methi	 MTR Everest Eastern MDH Teju 	 It shall have characteristic aromatic flavour free from foreign odour and mustiness Shall be free from mould, living and dead insects, insect fragments, and rodent contamination.
7	Mixed masala powder	 MTR Everest Eastern MDH Teju 	• It shall have characteristic aromatic flavour free from foreign odour, mustiness or rancidity.
8	Red Chilli powder	1) MTR 2) Everest 3) Eastern 4) MDH 5) Teju	 It shall be free from mould, living and dead insects, insect fragments, and rodent contamination. The powder shall be dry, free from dirt, extraneous colouring matter, and brick powder, dye, flavouring matter, mineral oil, rice husk and other harmful substances.



			• The chili powder may contain any edible vegetable oil to a maximum limit of 2.0 percent by weight under.
9	Turmeric powder	 MTR Everest Eastern MDH Teju 	 Free from colour, saw dust, Lead chromate, metallic yellow, Chalk powder or yellow soapstone powder
10	White pepper powder	1) MTR 2) Everest 3) Eastern 4) MDH 5) Teju	 White pepper means the powder obtained by grinding dried berries of Piper nigrum L. from which the outer pericarp is removed and to which no foreign matter is added. Shall have characteristic aromatic flavour and shall be free from mustiness. Shall be free from mould, living and dead insects, insect fragments, and rodent contamination. The powder shall be free from added colouring matter and any other harmful substances. However cereals like rice flour/maida may be part of its composition.

WHOLE SPICES

Si no	Name	Labelling details	Specifications	
1	Ajwain (Bishop Seeds)	Vendor /Trader Name - FSSAI number - Date of packing/manufacturing Best before date - Ideally 6 months to 12 months	 It shall have characteristic aromatic flavour and shall be free from mustiness, mould, living and dead insects, insect fragments, and rodent contamination. 	
2	Bay leaves/ Tej Patta	Vendor /Trader Name - FSSAI number - Date of packing/manufacturing Best before date - Ideally 6 months to 12 months	 Tejpat means the dried leaves of the tree Cinnamomumtamala, Nees and Ebermof family lauraceae. It shall have characteristic aroma. It shall be free from admixture of leaves other than Tejpat 	



3	Black pepper –Whole	Vendor /Trader Name - FSSAI number - Date of packing/manufacturing Best before date - Ideally 6 months to 12 months	 These are long, deep red and wrinkled, uniform pieces and without bruises. It shall be dried berries having unbroken pericarp. The product shall be whole with globular shape and wrinkled pericarp and shall have diameter of minimum 2.0 mm. It shall be brownish to dark brownish or blackish in colour. It should be free from mixing of Papaya seeds, light berries and may even filler such as sawdust
4	Black Cumin /Kalonji	Vendor /Trader Name - FSSAI number - Date of packing/manufacturing Best before date - Ideally 6 months to 12 months	 Means the seeds of Nigella sativa L. It shall have characteristic aromatic flavour free from mustiness. Shall be free from mould, living and dead insects, insect fragments, and rodent contamination.
5	Cinnamon /Dalchini – Whole	Vendor /Trader Name - FSSAI number - Date of packing/manufacturing Best before date - Ideally 6 months to 12 months	 It shall have characteristic sweetish flavour free from foreign odour, mustiness and rancidity. Shall not be adulterated with cassia It shall be free from mould, living and dead insects, insect fragments, rodent contamination
5	Cardamom - Green/Black	Vendor /Trader Name - FSSAI number - Date of packing/manufacturing Best before date - Ideally 6 months to 12 months	 Shall have characteristic sweetish flavour free from foreign odour, mustiness and rancidity. Shall be free from mould, living and dead insects, insect fragments, rodent contamination



6	Cloves	Vendor /Trader Name - FSSAI number - Date of packing/manufacturing Best before date - Ideally 6 months to 12 months	 It shall be of a reddish brown to blackish brown color with a strong aromatic odour free from off flavour, mustiness, mould, living and dead insects, insect fragments, and rodent contamination and from added colouring matter.
7	Cumin/Jeera - Shahi Jeera	Vendor /Trader Name - FSSAI number - Date of packing/manufacturing Best before date - Ideally 6 months to 12 months	 Shall be free from grass seeds coloured , charcoal dust, powder & sawdust
8	Mace (Javathri)	Vendor /Trader Name - FSSAI number - Date of packing/manufacturing Best before date - Ideally 6 months to 12 months	 Both Mace whole and powder shall be free from mould, living and dead insects, insect fragments, rodent contamination, and any added colouring matter Shall be free from Addition of Argemone seed. It shall have characteristic aromatic flavour free from foreign odour, mustiness or rancidity.
9	Mustard Black/Yellow	Vendor /Trader Name - FSSAI number - Date of packing/manufacturing Best before date - Ideally 6 months to 12 months	 It shall be free from mould, living and dead insects, insect fragments, and rodent contamination Size might vary from small to large seeds
10	Nutmeg – Whole	Vendor /Trader Name - FSSAI number - Date of packing/manufacturing Best before date - Ideally 6 months to 12 months	 It shall have characteristic aromatic flavour free from foreign odour and mustiness. It shall be free from mould, living and dead insects, insect fragments, and rodent contamination.
11	Star anise	Vendor /Trader Name - FSSAI number - Date of packing/manufacturing	• Star Anise means the dried mature fruit of the tree Illiciumverum hook of the family Illiaceae.



		Best before date - Ideally 6 months to 12 months	 The fruit shall comprise of boat-shaped follicles arranged radially around a central stalk. The colour of star anise shall be brownish red or reddish brown.
12	Sesame seeds /Till seeds - White/Black	Vendor /Trader Name - FSSAI number - Date of packing/manufacturing Best before date - Ideally 6 months to 12 months	 It shall have characteristic aromatic flavour free from foreign odour and mustiness. It shall be free from mould, living and dead insects, insect fragments, and rodent contamination. The colour of the same can vary from black to white based on menu/unit requirement.
13	Red Chillies whole-	Vendor /Trader Name - FSSAI number - Date of packing/manufacturing Best before date - Ideally 6 months to 12 months	 Preferred types/varieties of it 1) Bedagi 2) Kashmiri. 3) Guntur 4) Round type 5) Any other regional varieties need Corporate/Unit Chef approval The chilled shall be dry and firm with stalk. Free from moisture

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University Provide Healthy and Affordable Food Choices for All on Campus

Manipal University Jaipur is a center of academic excellence, Manipal University Jaipur is also a community where students, faculty, and staff come together to learn, work, and grow. Ensuring that everyone has access to healthy and affordable food options is not only a matter of well-being but also an essential part of creating an inclusive and supportive campus environment. Manipal University Jaipur provides nutritious and budget-friendly food choices for their diverse academic communities. Manipal University Jaipur understands the Importance of Healthy and Affordable Food Options, Proper nutrition is vital for cognitive function and academic success. A well-fed student or staff member is better equipped to concentrate, learn, and excel in their studies or work. Access to nutritious meals contributes to physical and mental well-being, reducing the risk of chronic health conditions and supporting overall health.

Manipal University Jaipur provides healthy and affordable food choices for all on campus. Manipal University Jaipur offers affordable meal plans that provide students and staff with access to balanced and reasonably priced meals on campus. (Annexure 1) These plans are often customizable to accommodate dietary preferences and restrictions. (Annexure 2) Manipal University Jaipur is diversifying its dining hall menus to include a wide range of healthy options. These may include fresh salads, whole grains, lean proteins, and plant-based choices, ensuring there is something for everyone. Manipal University Jaipur is increasingly sourcing their food locally, supporting regional farmers and reducing the environmental impact of food transportation. This also often results in fresher, healthier food for the campus community. Manipal University Jaipur offers nutrition education programs that teach students and staff about making healthy food choices, cooking skills, and budget-friendly meal planning. Manipal University Jaipur prioritizes supporting local businesses by featuring them in their food courts. These local vendors often focus on sustainable and fresh ingredients. (Picture 5) Manipal University Jaipur has restaurants specializing in specific cuisines, such as Italian, Asian, or Mexican, giving students and staff the chance to indulge in their favorite flavors. (Picture 1, 2, 3 & 4) Local sourcing and sustainable food practices adopted by Manipal University Jaipur align with global sustainability goals, promoting responsible consumption and production.





The provision of healthy and affordable food choices on university campuses is not just a matter of convenience; it is an investment in the well-being and success of the academic community. By offering a variety of nutritious and budget-friendly options, Manipal University Jaipur creates an inclusive and supportive environment where everyone can thrive. These initiatives demonstrate a commitment to the health and financial well-being of students and staff, reflecting the values of empathy and equality that education institutions should uphold.



Picture 1: Affordable and wide range of food variety available at MUJ cafeteria





BIRYANI		SANDWIC	н
1. Veg. Biryani 2. Egg. Biyani 3. Chicken Biryan		1. Chicken Sandwich Grilled 2. Veg Grilled Sandwich	65 55
SMALL SNACKS		HOT BEVERAGES	
1. Veg Puff	15/-	1 Tea Small	
2. Panner Puff	30/-	2. Coffee (Variety)	1
4 Samosa	30/-		
	15/-	HEALTHY CHOICE	
6. Maska Pattice	25/-	1. Cut Fruits	
7. РОНА	20/-	2. Pineapple Glass 3. Watermelon Class	50
ROLLS		4. Papaya Glass	30
1. Paneer Roll	60/-		
2. Chicken Roll	60/-	EGGS TO ORDER	
BURGERS		1. Boiled Egg (2pcs)	20/
1. Veg Burger	35/-	2. Boiled Egg (4pcs)	30/
3 Chicken Russes	*		
SANDWICH	50/-		
1. Veg Sandwich Plain	20/		
	30/-		
3. Chicken Sandwich Grilled	65/-		
4. Veg Gritted Sandwich	55/-	DESERTS	
MAGGIE		1. Assorted Pastry	
1. Plain Maggie	25/-	2. Brownie	25/-
3. Egg Maggie	30/-	3. Choco Ball	30/-
The second se	40/-	5. Doughnut	30/-
GARMA GARAM		CAKE 1KG	30/-
1. Aloo Paratha	40/-	1. Fruit Cake	600/-
2. Panner Paratha 3. Veg Birvani	60/-	2. Chocolate Cake	560/-
4. Chicken Biryani	80/-	4. Pineapple Cake	560/-
	1007-	5. Black Forest Cake	460/-
COLD BEVERGES		CAKES 500 GM	A STREET
1. Ice Tea	30/-	1. Fruit Cake	
2. Cold Coffee	40/-	2. Chocolate Cake	320/-
S. Masata Mint Cooler		3. Butter Scotch Cake	290/-

Picture 2: Food Menu Displayed at MUJ Campus Food Outlet







Picture 3: Images of food menu available in MUJ Hostel



Picture 4: Images of food items available at Coffee



Picture 5: Food Samples are regularly monitored in view to provide healthy food choices

Shop in MUJ

Breack fast			
Food	Serving	Calories	
FRESH JUICE	1 glass	112	
MOONG DAL PARATHAS	1 PC	113	
PLAIN PARATHA	1 PC	88	
KERALA STYLE GREEN PEAS MASALA	100 g	190.5	
PLAIN IDLY	1 PC	60	
UDDIN VADA	1 PC	97	
ASSORTED DOSA	1 PC	160 -200	
GHEE PONGAL	100 g	331	
SAMBAR	100 g	110	
2 TYPES OF CHUTNEY	100 g	60 - 190	
BOILED EGGS	1 PC	63	
ASSORTED BREADS	1 PC	76	
	1 PC	23	
	100	400	
ASSORTED FRUITS (2 TYPES)	100 g	63-84	
	100 g	391	
BLITTER	10 σ	64	
	10 g	24	
	20 g	120	
	20 g	120	
	20 σ	60	
	10 σ	14	
ALOO PARATHA	1 PC	177	
VEG SAGU	100 g	330	
MASALA VADA	1 PC	91	
MASALA POHA	100 g	178	
IDDYAPPAM	1 PC	135	
BROWNIE	1 PC	112	
OATS	100	379	
CHICKEN SAUSAGES	75 g	145	
CURD	100 g	61	
RAJMA PARATHA	1 PC	178	
ALOO BHAJI	100 g	68	
SHAVIGE UPPMA	100 g	164.13	
VEG CHEESE ROLL	1 PC	176	
BANANA FLAKES	100	346	
HERBED CHICKEN SUPREME	100 g	210	
CORN FLAKES	100 g	381	
HOT/COLD MILK	1 glass	200	
ALOO & SPRING ONION PARATHA	1 PC	216	
MAKKAI PANEER	100 g	168	
PARUPPU VADA	1 PC	91	
KESARI BATH	100 g	280	

KHARA BATH	100 g	240
STUFFED CROSSIEANT	1 PC	300
MUESILI	100 g	413.43
CHICKEN NUGGET	1 PC	59
GREEN PEAS PARATHAS	1 PC	164
KADALA CURRY	100 g	127
KEERAI VADA	1 PC	78
PUTTU	100 g	187
LEMON RICE	100 g	316
FRUIT CAKE	1 PC	139
RAGI BITES	100 g	433
HONEY CHICKEN	100 g	175
GHEE	5 g	45
SOYA KHEEMA PARATHA	1 PC	130
CHANNA MASALA	100 g	109.74
VEGETABLE UPPMA	100 g	209
CORN SPINACH ROLL	1 PC	289
GOBI PARATHA	1 PC	172
VEGETABLE STEW	100 g	56
APPAM	1 PC	99
MASALA IDLY	1 PC	85
CHITRANNA	100 g	135
MULLI PARATHA	1 PC	78
PANEER & ONION PARATHA	1 PC	124
PANEER SAI KURMA	100 g	310
UDDIN BONDA	1 PC	68
PANEER SAI KURMA	100 g	310
RICE SEVIGEA BATH	100 g	178
CINEMMON ROLLS	1 PC	149
PATTANI KURMA	100 g	112
INDORI POHA	100 g	130
MINI DOUGHNUT	1 PC	64
ALOO SAGU	100 g	302
DAL KHICHDI	100 g	203
CHICKEN SANDWICH	100 g	283
SEMIYA BATH	100 g	163
FRESH PEAS MASALA	100 g	149
TAWA BBQ CHICKEN WINGS	100 g	228
VEG SHAHI KURMA	100 g	124
VEGETABLE DALIA KHICHADI	100 g	164
STRAWBERRY CUP CAKE	1 PC	130
PANEER PARATHAS	1 PC	124
MILK MYSORE PAK	1 PC	132
VEG KURMA	100 g	109.47
SEVIKA BATH	100 g	163
ΤΟΜΑΤΟ UPMA	100	213

KERALA CHICKEN CURRY	100 g	126.8
PEANUT POHA	100 g	162
CUP CAKE	1 PC	131
PANEER KURMA	100 g	161
MILLET UPPMA	100 g	279
BLUE BERRY MUFFINS	1 PC	243
VEGETABLE KURMA	100 g	109.47
KANDA POHA	100	174
CHICKEN MULLIGATAWNY SOUP	1 cup	120
LEMON SHAVIGE BATH	100 g	210
MIX VEG PARATHA	1 PC	190
MUTTER PANEER	100 g	189
SEMIYA UPMA	100 g	163
CHOLE MASALA	100 g	140.5
BROKEN WHEAT KITCHADI	100 g	152
SPINACH VADA	1 PC	78
BAKED PANEER ROLL	1 PC	250
METHI PARATHA	1 PC	180
MINI ALOO CHEESE DOSA	1 PC	287.4
CHICKEN PANJABI SAMOSA	1 PC	210
ALOO PEAS MASALA	100 g	155
SPONGE CAKE	1 PC	187
OATS PONGAL	100 g	340
DONOUGHT	1 PC	220
STRAWBERRY MUFFINS	1 PC	278
PUFFED RICE UPPMA	100 g	120
CHOCO BROWNIE	1 PC	132
VEN PONGAL	100 g	331
FRESH JUICE	1 glass	112
ORANGE JUICE	1 glass	111
MIXED FRUIT JUICE	1 glass	121
PAPPAYA JUICE	1 glass	142
MUSK MELON JUICE	1 glass	42
WATER MELON JUICE	1 glass	100
PINEAPPLE JUICE	1 glass	133
GRAPE JUICE	1 glass	154
KIWI JUICE	1 glass	115
MANGO JUICE	1 glass	170
WATER MELON JUICE	1 glass	100
PINEAPPLE JUICE	1 glass	133
HOT MILK	1 glass	155
	1 glass	149
SPNACH VADA	1 PC	78
MANGALORE BONDA	100 g	407
PANEER POHA	100 g	201
CHEESE CROISSANT	1 PC	174

METHI MALAI PANEER	100 g	114
ROSTED MASALA BUN	1 PC	108
CHOCOLATE SANDWICH	1 PC	80
BOMBAY SAGU	100 g	156
CHOCO MUFFINS	1 PC	317
MIX VEG PANEER PARATHAS	1 PC	187
MOONG & UDDIN BONDA	1 PC	74
VEG DAL KHICHADI	100 g	203
CRISPY FRIED CHICKEN	100 g	278
BUTTER MILK BISCUITS	1 PC	128
FRESH GREEN PEAS KURMA	100 g	138
ALOO GOBI PARATHA	1 PC	244
ONION & CHILLY PARATHAS	1 PC	237
KERLA STYLE MOONG CURRY	100 g	90
VEGETABLE SANDWICH	100 g	179
VEGETABLE SAGU	100 g	330
ALOO PEAS KURMA	100 g	114
KARA PONGAL	100 g	325
BANANA CARROT CAKE	1 PC	150
KOREAN FRIED CHICKEN	100 g	240
PINDI CHOLE MASALA	100 g	181
CHICKEN LOLY POP	1 PC	89
MINI BATURA	1 PC	148
PALAK POORI	1 PC	an
	110	50
VADA CURRY	100 g	138
VADA CURRY BISCUITS AMBADE	100 g 1 PC	138 43
VADA CURRY BISCUITS AMBADE RAGI SEMYA BATH	100 g 1 PC 100 g	138 43 195
VADA CURRY BISCUITS AMBADE RAGI SEMYA BATH STUFFED ALOO BUN	100 g 1 PC 100 g 1 PC	138 43 195 106
VADA CURRY BISCUITS AMBADE RAGI SEMYA BATH STUFFED ALOO BUN CRISPY CHICKEN POPS	100 g 1 PC 100 g 1 PC 100 g	138 43 195 106 198
VADA CURRY BISCUITS AMBADE RAGI SEMYA BATH STUFFED ALOO BUN CRISPY CHICKEN POPS POP CORN	100 g 1 PC 100 g 1 PC 100 g 100 g	138 43 195 106 198 375
VADA CURRY BISCUITS AMBADE RAGI SEMYA BATH STUFFED ALOO BUN CRISPY CHICKEN POPS POP CORN BOILED PEANUT CHAAT	100 g 1 PC 100 g 1 PC 100 g 100 g 100 g	138 43 195 106 198 375 159.8
VADA CURRY BISCUITS AMBADE RAGI SEMYA BATH STUFFED ALOO BUN CRISPY CHICKEN POPS POP CORN BOILED PEANUT CHAAT ONION & CABBAGE PARATHAS	100 g 1 PC 100 g 1 PC 100 g 100 g 100 g 100 g 1 PC	138 43 195 106 198 375 159.8 260
VADA CURRY BISCUITS AMBADE RAGI SEMYA BATH STUFFED ALOO BUN CRISPY CHICKEN POPS POP CORN BOILED PEANUT CHAAT ONION & CABBAGE PARATHAS TAWA PARATHA	100 g 1 PC 100 g 1 PC 100 g 100 g 100 g 100 g 1 PC 1 PC 1 PC	138 43 195 106 198 375 159.8 260 197
VADA CURRY BISCUITS AMBADE RAGI SEMYA BATH STUFFED ALOO BUN CRISPY CHICKEN POPS POP CORN BOILED PEANUT CHAAT ONION & CABBAGE PARATHAS TAWA PARATHA MILLET KITCHIDI	100 g 1 PC 100 g 1 PC 100 g 100 g 100 g 1 PC 1 PC 1 PC 1 PC 1 00 g	30 138 43 195 106 198 375 159.8 260 197 210
VADA CURRY BISCUITS AMBADE RAGI SEMYA BATH STUFFED ALOO BUN CRISPY CHICKEN POPS POP CORN BOILED PEANUT CHAAT ONION & CABBAGE PARATHAS TAWA PARATHA MILLET KITCHIDI CHICKEN CUTLET	100 g 1 PC 100 g 1 PC 100 g 100 g 100 g 100 g 1 PC 1 PC 1 PC 1 PC 1 PC 1 PC 1 PC 1 PC 1 PC	30 138 43 195 106 198 375 159.8 260 197 210 110
VADA CURRY BISCUITS AMBADE RAGI SEMYA BATH STUFFED ALOO BUN CRISPY CHICKEN POPS POP CORN BOILED PEANUT CHAAT ONION & CABBAGE PARATHAS TAWA PARATHA MILLET KITCHIDI CHICKEN CUTLET BATURA	100 g 1 PC 100 g 1 PC 100 g 100 g 100 g 1 PC 1 PC 1 PC 1 00 g 1 PC 1 PC	30 138 43 195 106 198 375 159.8 260 197 210 110 136
VADA CURRY BISCUITS AMBADE RAGI SEMYA BATH STUFFED ALOO BUN CRISPY CHICKEN POPS POP CORN BOILED PEANUT CHAAT ONION & CABBAGE PARATHAS TAWA PARATHA MILLET KITCHIDI CHICKEN CUTLET BATURA PEAS MASALA	100 g 1 PC 100 g 1 PC 100 g 100 g 100 g 1 PC 1 PC 1 PC 1 PC 1 PC 1 PC 1 PC 1 00 g 1 PC 1 00 g	138 43 195 106 198 375 159.8 260 197 210 110 136 149
VADA CURRY BISCUITS AMBADE RAGI SEMYA BATH STUFFED ALOO BUN CRISPY CHICKEN POPS POP CORN BOILED PEANUT CHAAT ONION & CABBAGE PARATHAS TAWA PARATHA MILLET KITCHIDI CHICKEN CUTLET BATURA PEAS MASALA OATS KHICHDI	100 g 1 PC 100 g 1 PC 100 g 100 g 100 g 100 g 1 PC 1 PC 1 PC 1 PC 1 PC 1 00 g 1 PC 1 00 g 1 PC 1 00 g 1 00 g	138 138 43 195 106 198 375 159.8 260 197 210 110 136 149 157
VADA CURRY BISCUITS AMBADE RAGI SEMYA BATH STUFFED ALOO BUN CRISPY CHICKEN POPS POP CORN BOILED PEANUT CHAAT ONION & CABBAGE PARATHAS TAWA PARATHA MILLET KITCHIDI CHICKEN CUTLET BATURA PEAS MASALA OATS KHICHDI POORI	100 g 1 PC 100 g 1 PC 100 g 100 g 100 g 1 PC 1 PC 1 PC 1 PC 1 PC 1 PC 1 PC 1 00 g 1 PC 1 PC 1 00 g 1 PC 1 PC 1 PC 1 00 g 1 PC 1 PC	30 138 43 195 106 198 375 159.8 260 197 210 110 136 149 157 101
VADA CURRY BISCUITS AMBADE RAGI SEMYA BATH STUFFED ALOO BUN CRISPY CHICKEN POPS POP CORN BOILED PEANUT CHAAT ONION & CABBAGE PARATHAS TAWA PARATHA MILLET KITCHIDI CHICKEN CUTLET BATURA PEAS MASALA OATS KHICHDI POORI CHIK PEA CURRY	100 g 1 PC 100 g 1 PC 100 g 1 PC 100 g 100 g 1 PC 1 PC 1 PC 1 PC 1 PC 1 00 g 1 PC 1 PC 1 PC 1 PC 1 PC 1 PC 1 PC 1 00 g 1 PC 1 PC 1 00 g 1 PC 1 00 g 1 PC 1 00 g 1 00 g 1 PC 1 00 g 1 00 g	138 138 43 195 106 198 375 159.8 260 197 210 110 136 149 157 101 107
VADA CURRY BISCUITS AMBADE RAGI SEMYA BATH STUFFED ALOO BUN CRISPY CHICKEN POPS POP CORN BOILED PEANUT CHAAT ONION & CABBAGE PARATHAS TAWA PARATHA MILLET KITCHIDI CHICKEN CUTLET BATURA PEAS MASALA OATS KHICHDI POORI CHIK PEA CURRY DALIYA KHICHDI	100 g 1 PC 100 g 1 PC 100 g 100 g 100 g 100 g 1 PC 1 PC 1 PC 1 PC 1 PC 1 00 g 1 PC 1 00 g 1 PC 1 00 g 1 00 g	30 138 43 195 106 198 375 159.8 260 197 210 110 136 149 157 101 107 164
VADA CURRY BISCUITS AMBADE RAGI SEMYA BATH STUFFED ALOO BUN CRISPY CHICKEN POPS POP CORN BOILED PEANUT CHAAT ONION & CABBAGE PARATHAS TAWA PARATHA MILLET KITCHIDI CHICKEN CUTLET BATURA PEAS MASALA OATS KHICHDI POORI CHIK PEA CURRY DALIYA KHICHDI BLACK CHANNA MASALA	100 g 1 PC 100 g 1 PC 100 g 1 PC 100 g 100 g 1 PC 1 PC 1 PC 1 PC 1 PC 1 PC 1 PC 1 00 g 1 PC 1 00 g 1 PC 1 00 g 1 00 g	138 138 43 195 106 198 375 159.8 260 197 210 110 136 149 157 101 107 164 163
VADA CURRY BISCUITS AMBADE RAGI SEMYA BATH STUFFED ALOO BUN CRISPY CHICKEN POPS POP CORN BOILED PEANUT CHAAT ONION & CABBAGE PARATHAS TAWA PARATHA MILLET KITCHIDI CHICKEN CUTLET BATURA PEAS MASALA OATS KHICHDI POORI CHIK PEA CURRY DALIYA KHICHDI BLACK CHANNA MASALA PALAK PARATHA	100 g 1 PC 100 g 1 PC 100 g 1 PC 100 g 100 g 1 PC 1 PC 1 PC 1 PC 1 PC 1 PC 1 PC 1 00 g 1 PC 1 00 g 1 PC 1 00 g 1 00 g 1 PC 1 00 g 1 PC	30 138 43 195 106 198 375 159.8 260 197 210 110 136 149 157 101 107 164 163 160
VADA CURRY BISCUITS AMBADE RAGI SEMYA BATH STUFFED ALOO BUN CRISPY CHICKEN POPS POP CORN BOILED PEANUT CHAAT ONION & CABBAGE PARATHAS TAWA PARATHA MILLET KITCHIDI CHICKEN CUTLET BATURA PEAS MASALA OATS KHICHDI POORI CHIK PEA CURRY DALIYA KHICHDI BLACK CHANNA MASALA PALAK PARATHA MEENAKSHI PARATHA	100 g 1 PC 100 g 1 PC 100 g 1 PC 100 g 100 g 1 PC 1 PC 1 PC 1 PC 1 PC 1 PC 1 00 g 1 PC 1 00 g 1 PC 1 00 g 1 00 g 1 PC 1 00 g 1 00 g 1 PC 1 00 g 1 PC 1 00 g 1 PC 1 00 g 1 PC 1 PC	30 138 43 195 106 198 375 159.8 260 197 210 136 149 157 101 107 164 163 160 100
VADA CURRY BISCUITS AMBADE RAGI SEMYA BATH STUFFED ALOO BUN CRISPY CHICKEN POPS POP CORN BOILED PEANUT CHAAT ONION & CABBAGE PARATHAS TAWA PARATHA MILLET KITCHIDI CHICKEN CUTLET BATURA PEAS MASALA OATS KHICHDI POORI CHIK PEA CURRY DALIYA KHICHDI BLACK CHANNA MASALA PALAK PARATHA MEENAKSHI PARATHA MANGALORE BAJJI	100 g 1 PC 100 g 1 PC 100 g 1 PC 100 g 100 g 1 PC 1 PC 1 PC 1 PC 1 PC 1 00 g 1 PC 1 00 g 1 PC 1 00 g 1 00 g 1 PC 1 00 g 1 00 g 1 PC 1 00 g 1 PC 1 00 g 1 PC 1 PC	30 138 43 195 106 198 375 159.8 260 197 210 110 136 149 157 101 107 164 163 160 100 100

BUTTER COOKIES	1 PC	23
METHI TAWA PARATHA	1 PC	180
RAWA UPPMA WHITE	100 g	201
PANEER & ONION PARATHA	1 PC	124
BEETROOT PARATHA	1 PC	209
VANILLA MUFFINS	1 PC	215
CHOCO DONOUGHT	1 PC	340
ONION & PEAS PARATHAS	1 PC	164
BUTTER NAN	1 PC	93
MIX VEG KURMA	100 g	109.47
MILLETS PONGAL	100 g	131
PANEER CURRY	100 g	146
ALOO PEAS BHAJI	100 g	114
DRAGON SEMYA BATH	100 g	200
OATS VEGETABLE KHICHDI	100 g	170
CORN SPINACH TWIST	100 g	280
PLAIN CAKE	1 PC	187
ROAST CHICKEN ROSEMARY	100 g	120
TATTE IDLI	1 PC	54
TAWA BUTTER NAN	1 PC	94
Lunch		
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Food	Serving	Calories
TOMATO PATTANI BATH	100 g	115
MIX VEG SAMBAR	100 g	90
GARLIC DAL RASAM	100 g	78
CHICKEN 65	100 g	119
HONG KNOG NOODLES	100 g	189
CHICKEN HONG KONG NOODLES	100 g	153
BUTTER KULCHA	I PC	112
MAWA PEDA	I PC	133
MOONG DAL HALWA	100 g	182
5 TYPES OF PICKLE	10 g	14
STRAWABERRY BREEZE	1 glass	130
CREAM OF MUSHROOM SOUP	1 cup	96
CHICKEN PEPPER SOUP	1 cup	133
ALOO KARALA DRY	100 g	146
VEG MAKHANWALA	100 g	204
HARIYALI PULAO	100 g	215
DHABA DAL	100 g	158
BOONDI RAITHA	100 g	108
MIX VEG PALYA	100 g	178
СНОЖ СНОЖ КООТИ	100 g	99
VEG KHUSKA SOUTH	100 g	113
SOPPU SAMBAR	100 g	147
PEPPER RASAM	100 g	80
EGG PEPPER DRY	100 g	202
TAWA BUTTER CORN	100 g	134
TAWA FISH FRY	100 g	98
COIN PARATHA	I PC	98
JELABI	100 g	300
SEMIYA PAYASAM	100 g	244.13
6 TYPES OF PICKLE	10 g	14
	1 glass	121
	1 cup	115
	100 g	109
	100 g	144
	1 glass	142
		4Z
	1 glass	235
	1 gidss	100 81
	1 cup	170
ALOO PALAK DRY	100 g	203
PANEER BUTTER MASALA	100 g	146
VEG KUSHKA	100 g	113

RED PUMPKIN PORIYAL	100 g	56
ENNAKKAI	100 g	165
CHICKEN KABAB	100 g	151
TAWA VEG BUTTER RICE	100 g	140
CHICKEN SCHEZWAN FRIED RICE	100 g	168
GARLIC NAN	I PC	93
PINEAPPLE JUICE	1 glass	133
GRAPE JUICE	1 glass	154
CREAM OF BROCCOLI SOUP	1 Cup	92
NATTI KOLI RASAM	1 cup	115
PINDI CHANNA	100 g	110
VEG HYDERABADI	100	144
KAJU MUTTER PULAO	100 g	208.5
CHANNA DAL TADKA	100 g	123
URULAI PODIMAS	100 g	224
HEERAKKAI KOOTU	100 g	101
MUSHROOM RICE	100 g	152
DRUMSTICK KACHA MANGO SAMBAR	100 g	168
BEETROOT RASAM	100 g	568.7
DHAI BELLA	100 g	242
VEG MOMOS MANCHURIAN	100 g	436
KOLKATA EGG ROLL	100 g	301
GULAB JAMOON	I PC	120
BOONDI LADOO	I PC	155
CARROT HALWA	100 g	189
PINEAPPLE JELABI	I PC	150
MANGO MILK SHAKE	1 glass	185
VEG BADAMI SHORBA	1 cup	140
CREAM OF CHICKEN SOUP	1 cup	117
SOYA PEAS KADAI SABJI	100 g	183
DUM ALOO KASHMIRI	100 g	115
VEG BRIYANI	100 g	139
TOOR DAL TADKA	100 g	286
LOBIYA MASALA	100 g	187
COCOUNT RICE	100 g	150
SOPPU CHOW CHOW SAMBAR	100 g	98
CURD RICE WITH POMEGRANATE	100 g	178
HYDRABADI DUM BIRIYANI	100 g	274
VEG PASTA WITH PEPPERCHINO SAUCE	100 g	154
EGG MASALA TAWA FRY HOMESTYLE	100 g	142
KIWI JUICE	1 glass	115
SWEET CORN VEG SOUP	100 g	34
MUTTON BONE SOUP	1 Cup	276.45
BHINDI MASALA	100 g	112
KHATTA MEETHA BAIGAN MASALA	100 g	137
	100 -	220

TOMATO RASAM	100 g	70
MALABAR CHICKEN CURRY	100 g	164
VEGETABLE CHOW MEIN NOODLES	100 g	253
CHICKEN CHOW MEIN NOODLES	100 g	168
KERALA PARATHA	1 PC	216
RASAMALAI	1 PC	128
CHIKKU MILK SHAKE	1 glass	189
CREAM OF TOMATO SOUP	100 g	84
CHICKEN PEPPER SOUP	1 cup	137
TAWA VEGETABLES	100 g	78
VEG KOFTA CURRY	100 g	143.68
GHEE RICE	100 g	154
BEETROOT PORIYAL	100 g	85
BOTTLE GOURD KOOTU	100 g	83.52
CURRY LEAF RICE	100 g	164
KNOL KHOL SAMBAR	100 g	84
EGG CHETTINADU	100 g	156
TAWA TANDOORI CHICKEN	100 g	228
BADAM BURFI	100 g	171
ΑΚΚΙ ROTI	I PC	150
CHUTNEY	100 g	100
KADALA CURRY	100 g	127
ALOO BHINDI MASALA	100 g	121
MUTTER PANEER	100 g	189
JEERA CHILLI RICE	100 g	237
YELLOW DAL TADKA	100 g	170
PULIOGARE RICE	100 g	267
ARCOT MAKKAN BEDA	1 PC	108
ONION RAITHA	100 g	89
APPLE MILK SHAKE	1 glass	225.5
KADAI CHICKEN	100 g	150
TRIPLE FRIED RICE (EGG, PRAWNS, CHICKEN)	100 g	218
BREAD HALWA	100 g	221.5
PALAK SHORBA SOUP	1 Cup	229
NATTI KOLI SOUP	1 cup	115
SOYA MUTTER PULAO	100 g	210
METHI DAL	100 g	152
SOPPU AND GREEN MOONG PORIYAL	100 g	138
MADRAS CUCUMBER CURRY	100 g	104
DAL PALAK KHICHDI	100 g	168
KERALA SAMBAR	100 g	134
JEERA GINGER RASAM	100	84
MALAI SANDWICH	1 PC	118
SEMIYA DATES PAYASAM	100	180
BADAM MILK	1 glass	40
ACHARI BAINGAN	100 g	158.6

VEGETABLE PANEER PULAO	100 g	267
RAW BANANA PALYA	100 g	132
VEG CHETTINAD KURMA	100 g	114.6
BISIBELE BATH	100 g	74.37
KARA BOONDI	15 g	84
CHOW CHOW SAMBAR	100 g	134
GARLIC PEPPER RASAM	100 g	67
GHEE MYSORE PAK	1 PC	130
CHINESE CHILLY CHICKEN SEMI	100 g	132
MUTTON PEPPER RASAM	1 cup	89
SABZ PALAK DRY	100 g	128
CHWALI MAKHNI	100 g	132
DAL AMIRITSTAR	100 g	232
CABBAGE PEAS PORIYAL	100 g	215
LEMON MINT COOLER	1 glass	104
LOUKI SAMBAR	100 g	136
BASEN LADOO	1 PC	144
DAL KOLAPURI	100 g	107
SWEET CORN CHICKEN SOUP	1 cup	223
KADAI SOYA MASALA	100 g	293
GONGURA SAMBAR	100 g	104
KALAKAND	1 PC	120
SANDESH	1 PC	150
TOMATO SOUP	1 Cup	90
TOMATO SOUP VEGETABLE PULAO	1 Cup 100 g	90 231
TOMATO SOUP VEGETABLE PULAO MYSORE MIXED VEG SAMBAR	1 Cup 100 g 100 g	90 231 92
TOMATO SOUP VEGETABLE PULAO MYSORE MIXED VEG SAMBAR BUTTER CHICKEN	1 Cup 100 g 100 g 100 g	90 231 92 202
TOMATO SOUP VEGETABLE PULAO MYSORE MIXED VEG SAMBAR BUTTER CHICKEN VEG BURGER	1 Cup 100 g 100 g 100 g 1 PC	90 231 92 202 124
TOMATO SOUP VEGETABLE PULAO MYSORE MIXED VEG SAMBAR BUTTER CHICKEN VEG BURGER CHICKEN KOTTHU PARATHA	1 Cup 100 g 100 g 100 g 1 PC 100 g	90 231 92 202 124 321
TOMATO SOUP VEGETABLE PULAO MYSORE MIXED VEG SAMBAR BUTTER CHICKEN VEG BURGER CHICKEN KOTTHU PARATHA BADAM POORI	1 Cup 100 g 100 g 100 g 1 PC 100 g 1 PC	90 231 92 202 124 321 150
TOMATO SOUP VEGETABLE PULAO MYSORE MIXED VEG SAMBAR BUTTER CHICKEN VEG BURGER CHICKEN KOTTHU PARATHA BADAM POORI MILK MYSORE PAK	1 Cup 100 g 100 g 100 g 1 PC 100 g 1 PC 1 PC 1 PC	90 231 92 202 124 321 150 132
TOMATO SOUP VEGETABLE PULAO MYSORE MIXED VEG SAMBAR BUTTER CHICKEN VEG BURGER CHICKEN KOTTHU PARATHA BADAM POORI MILK MYSORE PAK MANGO JUICE	1 Cup 100 g 100 g 1 PC 1 PC 1 PC 1 PC 1 glass	90 231 92 202 124 321 150 132 170
TOMATO SOUP VEGETABLE PULAO MYSORE MIXED VEG SAMBAR BUTTER CHICKEN VEG BURGER CHICKEN KOTTHU PARATHA BADAM POORI MILK MYSORE PAK MANGO JUICE HOT & SOUR VEG SOUP	1 Cup 100 g 100 g 1 PC 1 PC 1 PC 1 PC 1 glass 1 Cup	90 231 92 202 124 321 150 132 170 142
TOMATO SOUP VEGETABLE PULAO MYSORE MIXED VEG SAMBAR BUTTER CHICKEN VEG BURGER CHICKEN KOTTHU PARATHA BADAM POORI MILK MYSORE PAK MANGO JUICE HOT & SOUR VEG SOUP KADAI VEGETABLES WITH PANEER	1 Cup 100 g 100 g 1 PC 1 PC 1 PC 1 PC 1 glass 1 Cup 100 g	90 231 92 202 124 321 150 132 170 142 265
TOMATO SOUP VEGETABLE PULAO MYSORE MIXED VEG SAMBAR BUTTER CHICKEN VEG BURGER CHICKEN KOTTHU PARATHA BADAM POORI MILK MYSORE PAK MANGO JUICE HOT & SOUR VEG SOUP KADAI VEGETABLES WITH PANEER PANJABI CHANNA MASALA	1 Cup 100 g 100 g 1 PC 1 PC 1 PC 1 PC 1 glass 1 Cup 100 g 100 g	90 231 92 202 124 321 150 132 170 142 265 140
TOMATO SOUP VEGETABLE PULAO MYSORE MIXED VEG SAMBAR BUTTER CHICKEN VEG BURGER CHICKEN KOTTHU PARATHA BADAM POORI MILK MYSORE PAK MANGO JUICE HOT & SOUR VEG SOUP KADAI VEGETABLES WITH PANEER PANJABI CHANNA MASALA GUJARATI DAL	1 Cup 100 g 100 g 100 g 1 PC 100 g 1 PC 1 PC 1 glass 1 Cup 100 g 100 g 100 g 100 g	90 231 92 202 124 321 150 132 170 142 265 140 149
TOMATO SOUP VEGETABLE PULAO MYSORE MIXED VEG SAMBAR BUTTER CHICKEN VEG BURGER CHICKEN KOTTHU PARATHA BADAM POORI MILK MYSORE PAK MANGO JUICE HOT & SOUR VEG SOUP KADAI VEGETABLES WITH PANEER PANJABI CHANNA MASALA GUJARATI DAL BEETROOT CHANNA DAL PORIYAL	1 Cup 100 g 100 g 1 PC 1 PC 1 PC 1 PC 1 PC 1 glass 1 Cup 100 g 100 g 100 g 100 g 100 g	90 231 92 202 124 321 150 132 170 142 265 140 149 126
TOMATO SOUP VEGETABLE PULAO MYSORE MIXED VEG SAMBAR BUTTER CHICKEN VEG BURGER CHICKEN KOTTHU PARATHA BADAM POORI MILK MYSORE PAK MANGO JUICE HOT & SOUR VEG SOUP KADAI VEGETABLES WITH PANEER PANJABI CHANNA MASALA GUJARATI DAL BEETROOT CHANNA DAL PORIYAL HEERAKKAI LOBIYA KOOTU	1 Cup 100 g 100 g 100 g 1 PC 1 PC 1 PC 1 PC 1 glass 1 Cup 100 g 100 g 100 g 100 g 100 g 100 g	90 231 92 202 124 321 150 132 170 142 265 140 149 126 104
TOMATO SOUP VEGETABLE PULAO MYSORE MIXED VEG SAMBAR BUTTER CHICKEN VEG BURGER CHICKEN KOTTHU PARATHA BADAM POORI MILK MYSORE PAK MANGO JUICE HOT & SOUR VEG SOUP KADAI VEGETABLES WITH PANEER PANJABI CHANNA MASALA GUJARATI DAL BEETROOT CHANNA DAL PORIYAL HEERAKKAI LOBIYA KOOTU MANGALORE SAMBAR	1 Cup 100 g 100 g 100 g 1 PC 1 PC 1 PC 1 PC 1 PC 1 glass 1 Cup 100 g 100 g 100 g 100 g 100 g 100 g 100 g	90 231 92 202 124 321 150 132 170 142 265 140 149 126 104 131
TOMATO SOUP VEGETABLE PULAO MYSORE MIXED VEG SAMBAR BUTTER CHICKEN VEG BURGER CHICKEN KOTTHU PARATHA BADAM POORI MILK MYSORE PAK MANGO JUICE HOT & SOUR VEG SOUP KADAI VEGETABLES WITH PANEER PANJABI CHANNA MASALA GUJARATI DAL BEETROOT CHANNA DAL PORIYAL HEERAKKAI LOBIYA KOOTU MANGALORE SAMBAR GARLIC RASAM	1 Cup 100 g 100 g 100 g 1 PC 1 PC 1 PC 1 PC 1 glass 1 Cup 100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g	90 231 92 202 124 321 150 132 170 142 265 140 126 104 131 70
TOMATO SOUP VEGETABLE PULAO MYSORE MIXED VEG SAMBAR BUTTER CHICKEN VEG BURGER CHICKEN KOTTHU PARATHA BADAM POORI MILK MYSORE PAK MANGO JUICE HOT & SOUR VEG SOUP KADAI VEGETABLES WITH PANEER PANJABI CHANNA MASALA GUJARATI DAL BEETROOT CHANNA DAL PORIYAL HEERAKKAI LOBIYA KOOTU MANGALORE SAMBAR GARLIC RASAM	1 Cup 100 g 100 g 100 g 1 PC 1 PC 1 PC 1 PC 1 PC 1 PC 1 Glass 1 Cup 100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g	90 231 92 202 124 321 150 132 170 142 265 140 149 126 104 131 70 72
TOMATO SOUP VEGETABLE PULAO MYSORE MIXED VEG SAMBAR BUTTER CHICKEN VEG BURGER CHICKEN KOTTHU PARATHA BADAM POORI MILK MYSORE PAK MANGO JUICE HOT & SOUR VEG SOUP KADAI VEGETABLES WITH PANEER PANJABI CHANNA MASALA GUJARATI DAL BEETROOT CHANNA DAL PORIYAL HEERAKKAI LOBIYA KOOTU MANGALORE SAMBAR GARLIC RASAM DAL RASAM	1 Cup 100 g 100 g 100 g 1 PC 1 PC 1 PC 1 PC 1 PC 1 glass 1 Cup 100 g 100 g	90 231 92 202 124 321 150 132 170 142 265 140 149 126 104 131 70 72 60
TOMATO SOUP VEGETABLE PULAO MYSORE MIXED VEG SAMBAR BUTTER CHICKEN VEG BURGER CHICKEN KOTTHU PARATHA BADAM POORI MILK MYSORE PAK MANGO JUICE HOT & SOUR VEG SOUP KADAI VEGETABLES WITH PANEER PANJABI CHANNA MASALA GUJARATI DAL BEETROOT CHANNA DAL PORIYAL HEERAKKAI LOBIYA KOOTU MANGALORE SAMBAR GARLIC RASAM DAL RASAM GINGER RASAM	1 Cup 100 g 100 g 100 g 1 PC 1 PC 1 PC 1 PC 1 PC 1 glass 1 Cup 100 g 100 g	90 231 92 202 124 321 150 132 170 142 265 140 126 104 131 70 72 60 242
TOMATO SOUP VEGETABLE PULAO MYSORE MIXED VEG SAMBAR BUTTER CHICKEN VEG BURGER CHICKEN KOTTHU PARATHA BADAM POORI MILK MYSORE PAK MANGO JUICE HOT & SOUR VEG SOUP KADAI VEGETABLES WITH PANEER PANJABI CHANNA MASALA GUJARATI DAL BEETROOT CHANNA DAL PORIYAL HEERAKKAI LOBIYA KOOTU MANGALORE SAMBAR GARLIC RASAM DAL RASAM GINGER RASAM DHAI BELLA EGG MASALA PEPPER FRY	1 Cup 100 g 100 g 100 g 1 PC 1 PC 1 PC 1 PC 1 PC 1 glass 1 Cup 100 g 100 g	90 231 92 202 124 321 150 132 170 142 265 140 149 126 104 131 70 72 60 242 114
TOMATO SOUP VEGETABLE PULAO MYSORE MIXED VEG SAMBAR BUTTER CHICKEN VEG BURGER CHICKEN KOTTHU PARATHA BADAM POORI MILK MYSORE PAK MANGO JUICE HOT & SOUR VEG SOUP KADAI VEGETABLES WITH PANEER PANJABI CHANNA MASALA GUJARATI DAL BEETROOT CHANNA DAL PORIYAL HEERAKKAI LOBIYA KOOTU MANGALORE SAMBAR GARLIC RASAM DAL RASAM GINGER RASAM DHAI BELLA EGG MASALA PEPPER FRY TAWA KULCHA	1 Cup 100 g 100 g 100 g 1 PC 1 PC 1 PC 1 PC 1 PC 1 glass 1 Cup 100 g 100 g	90 231 92 202 124 321 150 132 170 142 265 140 149 126 104 131 70 72 60 242 114 112

CHOCOLATE ICE CREAM	1 Scoop	217
TOMATO METHI RICE	100 g	115
PUMPKIN PALYA	100 g	87
CHOCOLATE MILK SHAKE	1 glass	286
NATI KOLI CHICKEN SOUP	1 cup	115
BROCOLLI SOUP	1 Cup	92
ALOO BHINDI DRY	100 g	113
PARWAL KI SABZI	100 g	102
VEG & BREAD PULAO -DARSHINI STYLE	100	238
DAL MAKHANI	100 g	151
TOMATO RICE	100 g	120
CHETTINAD YAM & LOUKI SAMBAR	100	100
HYDRABADI DUM BIRIYANI	100 g	150
VEG HAKKA NOODLES	100 g	150
CHICKEN HAKKA NOODLES	100 g	180
СНИМ СНИМ	1 PC	185
PEAS PULAO	100 g	145
PINEAPPLE KESARI	100 g	315
WATER MELON JUICE	1 glass	100
TAWA VEGETABLE	100 g	184
METHI MALAI MUTTER	100 g	113
PINEAPPLE JUICE	1 glass	133
SPINACH & MUSHROOM SOUP	1 Cup	157
CREAM OF CHICKEN SOUP	1 Cup	127
PINDI CHANNA	100 g	202
PALAK KADI	100 g	210
RAJMA PULAO	100 g	143
KARAMANI PORIYAL	100 g	107
VADA CURRY	100 g	138
COCONUT RICE	100 g	150
CHICKEN ROGAN JOSH	100 g	141.5
TAWA VEG BUTTER RICE	100 g	194
CHICKEN SCHEZWAN FRIED RICE	100 g	157
PALAK TAWA PARATHA	1 PC	141
M.CUCUMBER SAMBAR	100 g	124
CHICKEN MULLIGATAWNY SOUP	1 cup	120
SOYA MUTTER DRY	100 g	174
SABZ MAKHNI	100 g	148
HARIYALI KUSHKA	100 g	136
GREEN MOONG TADKA	100 g	100
SOPPU MOONG PALYA	100 g	130
VEG KARA PULUSE	100 g	99
KADAI BABYCORN MASALA	100 g	130
MIX VEG PORIYAL	100 g	160
DHABA RICE	100 g	168
DHABA KI DAL	100 g	158

JAMOON	I PC	120
DAL METHI	100 g	152
TAWA PULAO	100 g	264
VEG CHETTINADU CURRY	100 g	110
CHITRANNA	100 g	135
MURUGH TIKKA METHI MASALA	100 g	201
BADHUSHA	1 PC	178
ICECREAM	1 Scoop	207
CREAM OF PALAK CORN SOUP	1 cup	103
BABYCORN MUSHROOM DRY	100 g	190
NAVRATNA PULAO	100 g	211
CABBAGE PORIYAL	100 g	71
MTR RASAM	100 g	65
VEG KHEEMA DOSA	1 Pc	264
BROCCOLI & CARROT SOUP	1 cup	67
SOYA PALAK MASALA	100 g	114
NAWABI PULAO	100 g	202
SOYA PATTANI CURRY	100 g	183
BOONDI KADI	100 g	120
DHARWARD PEDA	1 PC	100
CARROT BEANS FUGATH	100 g	243
ALOO GOBI DRY	100 g	174
TAWA HARIYALI CHICKEN DRY	100 g	196
CHAMPAKALA	1 PC	180
VEG HYRIYALI PULAO	100 g	215
DRUMSTICK RAW MANGO SAMBAR	100 g	168
MUTTON RASAM SOUP	1 cup	89
KADAI PANEER	100 g	245
KADAI VEG DRY	100 g	165
DAL BANJARA	100 g	142
DAL PALAK	100 g	166
DAL PANCHRATHI	100 -	121
	100 g	171
VATHA KULAMBU	100 g 100 g	90
VATHA KULAMBU BEETROOT PALYA	100 g 100 g 100 g	90 100
VATHA KULAMBU BEETROOT PALYA TENDLI & CHANNA DRY	100 g 100 g 100 g 100 g	90 100 138
VATHA KULAMBU BEETROOT PALYA TENDLI & CHANNA DRY MYSORE RASAM	100 g 100 g 100 g 100 g 100 g	90 100 138 70
VATHA KULAMBU BEETROOT PALYA TENDLI & CHANNA DRY MYSORE RASAM CHETTINAD VEG SAMBAR	100 g 100 g 100 g 100 g 100 g 100 g	90 100 138 70 100
VATHA KULAMBU BEETROOT PALYA TENDLI & CHANNA DRY MYSORE RASAM CHETTINAD VEG SAMBAR UDUPI SAMBAR	100 g 100 g 100 g 100 g 100 g 100 g 100 g	90 100 138 70 100 110
VATHA KULAMBU BEETROOT PALYA TENDLI & CHANNA DRY MYSORE RASAM CHETTINAD VEG SAMBAR UDUPI SAMBAR PUDINA RICE	100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g	90 100 138 70 100 110 134
VATHA KULAMBU BEETROOT PALYA TENDLI & CHANNA DRY MYSORE RASAM CHETTINAD VEG SAMBAR UDUPI SAMBAR PUDINA RICE VEG FRIED RICE	100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g	90 100 138 70 100 110 134 163
VATHA KULAMBU BEETROOT PALYA TENDLI & CHANNA DRY MYSORE RASAM CHETTINAD VEG SAMBAR UDUPI SAMBAR PUDINA RICE VEG FRIED RICE CHICKEN KATTI ROLL	100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g	90 100 138 70 100 110 134 163 337
VATHA KULAMBU BEETROOT PALYA TENDLI & CHANNA DRY MYSORE RASAM CHETTINAD VEG SAMBAR UDUPI SAMBAR PUDINA RICE VEG FRIED RICE CHICKEN KATTI ROLL MYSORE PAK	100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g 1 PC 1 PC	90 100 138 70 100 110 134 163 337 181
VATHA KULAMBU BEETROOT PALYA TENDLI & CHANNA DRY MYSORE RASAM CHETTINAD VEG SAMBAR UDUPI SAMBAR PUDINA RICE VEG FRIED RICE CHICKEN KATTI ROLL MYSORE PAK SPINACH CORN SHORBA	100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g 1 PC 1 PC 1 Cup	121 90 100 138 70 100 110 134 163 337 181 142
VATHA KULAMBU BEETROOT PALYA TENDLI & CHANNA DRY MYSORE RASAM CHETTINAD VEG SAMBAR UDUPI SAMBAR PUDINA RICE VEG FRIED RICE CHICKEN KATTI ROLL MYSORE PAK SPINACH CORN SHORBA CHICKEN SHORBA	100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g 1 PC 1 PC 1 Cup 1 Cup	121 90 100 138 70 100 110 134 163 337 181 142 267
VATHA KULAMBU BEETROOT PALYA TENDLI & CHANNA DRY MYSORE RASAM CHETTINAD VEG SAMBAR UDUPI SAMBAR PUDINA RICE VEG FRIED RICE CHICKEN KATTI ROLL MYSORE PAK SPINACH CORN SHORBA CHICKEN SHORBA KASHMIRI VEG PANEER CURRY	100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g 1 PC 1 PC 1 Cup 1 Cup 100 g	121 90 100 138 70 100 110 134 163 337 181 142 267 204

BLACK CHANNA USSLI	100 g	205
IMRATI	1 PC	198
MUGHLAI CHICKEN CURRY	100 g	264
VEGETABLE PEPPER FRY	100 g	246
HYDRABADI VEG BIRIYANI	100 g	283
KARAMANI KOOTU	100 g	220
MUTTON BIRIYANI	100 g	164
KAJU BURFI	1 PC	64
BABY CORN & BROCCOLI SOUP	1 cup	203
DRUMSTICK LEAVES SOUP	1 cup	46
KAJU MASALA	100 g	154
PUDINA CHANNA DRY	100 g	294
DATES AND BROWN ONION PULAO	100 g	325
PAL ADAI PAYASAM	100 g	125.8
CARROT RICE	100 g	110
BADAM HALWA	100 g	282
BADAM MILK SHAKE	1 glass	177.1
DAL KALAI	100 g	117
CABBAGE CHANNA DAL PORIYAL	100 g	113
RADDISH RAW BANANA SAMBAR	100 g	128
DHABA CHICKEN CURRY	100 g	202
SOREKAI CHANNA DAL KOOTU	100 g	136
LOUKI GUNGURA VEPPUDU	100 g	101
MANGO VEG SAMBAR	100 g	139
EGG NILGIRI KURMA	100 g	125
VEG KATTI ROLL	1 Pc	186
DOUBLE KA MEETHA	100 g	340
FRUIT PANAKAM	1 glass	300
CHILLY BABY CORN DRY	100 g	184
CORN PALAK	100 g	78
HERBED RICE	100 g	126
DRY FRUIT BURFY	1 PC	125
CHEESE MASALA OMLETE	1 PC	225
MANGOLIAN BARBEQUE - RICE	100 g	321
ZARDA PULAO	100 g	346
MASOOR DAL	100 g	116
CREAM OF PALAK SOUP	1 Cup	83
PAKODA MORE CURRY	100	242
LOUKI KOOTU	100 g	83.52
CORN CAPSICUM CURRY	100 g	150
LAUKI DAL	100 g	120.32
MADRAS DAL TADKA	100 g	123
CHIKKU MILK SHAKE	1 glass	130
BHINDI CHANNA DRY	100 g	124
SUBZ BIRIYANI	100 g	130

RAW BANANA PEANUT PORIYAL	100 g	150
MANGALORE MIX VEG SAMBAR	100 g	142
PUNJABI CHICKEN MASALA	100	151
MUSHROOM & CORN FRIED RICE	100 g	234
RASA GULLA	100 g	321
CORN PALAK SHORBA	1 Cup	142
PALAK PANEER	100 g	134
DRUMSTICK SMALL ONION SAMBAR	100 g	115
DRY JAMOON	1 PC	140
MANGO LASSI	1 glass	150
KADAI BABYCORN & CARROT DRY	100 g	130
MUTTON SOUP	1 Cup	276.45
VEG KHOLAPURI	100 g	245
ALOO GOBI MASALA	100 g	174
TAWA VEG	100 g	184
TAWA HARIYALI CHICKEN	100 g	196
SEMIYA AND SABUDHNA PAYASAM	100 g	244.13
KASHIMIRI PULAO	100 g	201
VEG MANCHURIAN MOMOS	100 g	436
SOYA & RAJMA PULAO	100 g	218
PUDINA & CORIYANDER RICE	100 g	197
SPECIAL LADOO	1 PC	185
MUTTER PANEER MASALA	100 g	121.49
MIX SPROUTS PALAK SABJI	100 g	89
SOPPINA KURMA	100 g	101
BETROOT BLACK CHANNA PORIYAL	100 g	128
VEG RICE BATH	100 g	120
BHARWAN SABZI (STUFFED WITH ALOO)	100 g	222
MULLANGE SAMBAR	100 g	113
KOLKATA EGG KATTI ROLL	100 g	301

Food Serving Calories VEG HARA BHARA KABAB 100 g 159 MUSHROOM CHEESE TARRT 1PC 125 CHEESE CORN NUGGEST 100 g 194 TOMATO KETCHEP 18 g 20 MINT CHUTNEY 100 g 80 GARLIC SAUCE 100 g 106 COCOUNET CHUTNEY 100 g 120 BAKED PANEER ROLL 1 PC 250 DHOKLA 1 PC 90 ONION PAKODA 100 g 266 VEG CUTLET 1 PC 120 GRILLED COTTAGE CHEESE ROLL 1 PC 122 VEG MOMOS 100 g 137 PANJABI SAMOSA 1 PC 250 CORN & SPINACH VOL AU VENTS 1 PC 240 CHEESE BALLS 100 g 282 GOBI PAKODA 100 g 282 GOBI PAKODA 100 g 286 VEG LOLYPUP 1 PC 38 ROMALI EGG ROLL 1 PC 158 CORN & CUCUMBER CHAAT
VEG HARA BHARA KABAB 100 g 159 MUSHROOM CHEESE TARRT 1PC 125 CHEESE CORN NUGGEST 100 g 194 TOMATO KETCHEP 18 g 20 MINT CHUTNEY 100 g 80 GARLIC SAUCE 100 g 106 COCOUNET CHUTNEY 100 g 120 BAKED PANEER ROLL 1 PC 250 DHOKLA 1 PC 90 ONION PAKODA 100 g 266 VEG CUTLET 1 PC 120 GRILLED COTTAGE CHEESE ROLL 1 PC 122 VEG MOMOS 100 g 137 PANJABI SAMOSA 1 PC 250 CORN & SPINACH VOL AU VENTS 1 PC 240 CHEESE BALLS 100 g 402 SUBWAY SANDWICH 1 PC 68 SABUDANA VADA 100 g 282 GOBI PAKODA 100 g 286 VEG LOLYPUP 1 PC 38 ROMALI EGG ROLL 1 PC 158 CORN & CUCUMBER CHAAT
MUSHROOM CHEESE TARRT 1PC 125 CHEESE CORN NUGGEST 100 g 194 TOMATO KETCHEP 18 g 20 MINT CHUTNEY 100 g 80 GARLIC SAUCE 100 g 106 COCOUNET CHUTNEY 100 g 120 BAKED PANEER ROLL 1 PC 250 DHOKLA 1 PC 90 ONION PAKODA 100 g 266 VEG CUTLET 1 PC 120 GRILLED COTTAGE CHEESE ROLL 1 PC 122 VEG MOMOS 100 g 137 PANJABI SAMOSA 1 PC 250 CORN & SPINACH VOL AU VENTS 1 PC 240 CHEESE BALLS 100 g 402 SUBWAY SANDWICH 1 PC 68 SABUDANA VADA 100 g 286 VEG LOLYPUP 1 PC 38 ROMALI EGG ROLL 1 PC 158 CORN & CUCUMBER CHAAT 100 g 63-84 PUNUGULU 100 g 315 CHICKEN SANDWICH
CHEESE CORN NUGGEST 100 g 194 TOMATO KETCHEP 18 g 20 MINT CHUTNEY 100 g 80 GARLIC SAUCE 100 g 106 COCOUNET CHUTNEY 100 g 120 BAKED PANEER ROLL 1 PC 250 DHOKLA 1 PC 90 ONION PAKODA 100 g 266 VEG CUTLET 1 PC 120 GRILLED COTTAGE CHEESE ROLL 1 PC 122 VEG MOMOS 100 g 137 PANJABI SAMOSA 1 PC 250 CORN & SPINACH VOL AU VENTS 1 PC 240 CHEESE BALLS 100 g 282 GOBI PAKODA 100 g 282 GOBI PAKODA 100 g 286 VEG LOLYPUP 1 PC 38 ROMALI EGG ROLL 1 PC 158 CORN & CUCUMBER CHAAT 100 g 315 CHICKEN SANDWICH 100 g 283 CUT FRUITS 100 g 283 CHANNA CHAT 100 g 283
TOMATO KETCHEP 18 g 20 MINT CHUTNEY 100 g 80 GARLIC SAUCE 100 g 106 COCOUNET CHUTNEY 100 g 120 BAKED PANEER ROLL 1 PC 250 DHOKLA 1 PC 90 ONION PAKODA 100 g 266 VEG CUTLET 1 PC 120 GRILLED COTTAGE CHEESE ROLL 1 PC 122 VEG MOMOS 100 g 137 PANJABI SAMOSA 1 PC 250 CORN & SPINACH VOL AU VENTS 1 PC 240 CHEESE BALLS 100 g 402 SUBWAY SANDWICH 1 PC 68 SABUDANA VADA 100 g 282 GOBI PAKODA 100 g 286 VEG LOLYPUP 1 PC 38 ROMALI EGG ROLL 1 PC 158 CORN & CUCUMBER CHAAT 100 g 63-84 PUNUGULU 100 g 315 CHICKEN SANDWICH 100 g 283 CHANNA CHAT 100 g
MINT CHUTNEY 100 g 80 GARLIC SAUCE 100 g 106 COCOUNET CHUTNEY 100 g 120 BAKED PANEER ROLL 1 PC 250 DHOKLA 1 PC 90 ONION PAKODA 100 g 266 VEG CUTLET 1 PC 120 GRILLED COTTAGE CHEESE ROLL 1 PC 122 VEG MOMOS 100 g 137 PANJABI SAMOSA 1 PC 250 CORN & SPINACH VOL AU VENTS 1 PC 240 CHEESE BALLS 100 g 402 SUBWAY SANDWICH 1 PC 68 SABUDANA VADA 100 g 286 VEG LOLYPUP 1 PC 38 ROMALI EGG ROLL 1 PC 158 CORN & CUCUMBER CHAAT 100 g 315 CUT FRUITS 100 g 315 CHICKEN SANDWICH 100 g 283 CHANNA CHAT 100 g 283
GARLIC SAUCE 100 g 106 g COCOUNET CHUTNEY 100 g 120 BAKED PANEER ROLL 1 PC 250 DHOKLA 1 PC 90 ONION PAKODA 100 g 266 VEG CUTLET 1 PC 120 GRILLED COTTAGE CHEESE ROLL 1 PC 122 VEG MOMOS 100 g 137 PANJABI SAMOSA 1 PC 250 CORN & SPINACH VOL AU VENTS 1 PC 240 CHEESE BALLS 100 g 402 SUBWAY SANDWICH 1 PC 68 SABUDANA VADA 100 g 286 VEG LOLYPUP 1 PC 38 ROMALI EGG ROLL 1 PC 158 CORN & CUCUMBER CHAAT 100 g 82 CUT FRUITS 100 g 315 CHICKEN SANDWICH 100 g 283 CHICKEN SANDWICH 100 g 283
COCOUNET CHUTNEY 100 g 120 BAKED PANEER ROLL 1 PC 250 DHOKLA 1 PC 90 ONION PAKODA 100 g 266 VEG CUTLET 1 PC 120 GRILLED COTTAGE CHEESE ROLL 1 PC 122 VEG MOMOS 100 g 137 PANJABI SAMOSA 1 PC 250 CORN & SPINACH VOL AU VENTS 1 PC 240 CHEESE BALLS 100 g 402 SUBWAY SANDWICH 1 PC 68 SABUDANA VADA 100 g 282 GOBI PAKODA 100 g 286 VEG LOLYPUP 1 PC 158 CORN & CUCUMBER CHAAT 100 g 82 CUT FRUITS 100 g 63-84 PUNUGULU 100 g 315 CHICKEN SANDWICH 100 g 283 CHANNA CHAT 100 g 144.45
BAKED PANEER ROLL 1 PC 250 DHOKLA 1 PC 90 ONION PAKODA 100 g 266 VEG CUTLET 1 PC 120 GRILLED COTTAGE CHEESE ROLL 1 PC 122 VEG MOMOS 100 g 137 PANJABI SAMOSA 1 PC 250 CORN & SPINACH VOL AU VENTS 1 PC 240 CHEESE BALLS 100 g 402 SUBWAY SANDWICH 1 PC 68 SABUDANA VADA 100 g 282 GOBI PAKODA 100 g 286 VEG LOLYPUP 1 PC 38 ROMALI EGG ROLL 1 PC 158 CORN & CUCUMBER CHAAT 100 g 82 CUT FRUITS 100 g 63-84 PUNUGULU 100 g 315 CHICKEN SANDWICH 100 g 283 CHANNA CHAT 100 g 144.45
DHOKLA 1 PC 90 ONION PAKODA 100 g 266 VEG CUTLET 1 PC 120 GRILLED COTTAGE CHEESE ROLL 1 PC 122 VEG MOMOS 100 g 137 PANJABI SAMOSA 1 PC 250 CORN & SPINACH VOL AU VENTS 1 PC 240 CHEESE BALLS 100 g 402 SUBWAY SANDWICH 1 PC 68 SABUDANA VADA 100 g 282 GOBI PAKODA 100 g 286 VEG LOLYPUP 1 PC 38 ROMALI EGG ROLL 1 PC 158 CORN & CUCUMBER CHAAT 100 g 63-84 PUNUGULU 100 g 315 CHICKEN SANDWICH 100 g 283
ONION PAKODA 100 g 266 VEG CUTLET 1 PC 120 GRILLED COTTAGE CHEESE ROLL 1 PC 122 VEG MOMOS 100 g 137 PANJABI SAMOSA 1 PC 250 CORN & SPINACH VOL AU VENTS 1 PC 240 CHEESE BALLS 100 g 402 SUBWAY SANDWICH 1 PC 68 SABUDANA VADA 100 g 282 GOBI PAKODA 100 g 286 VEG LOLYPUP 1 PC 158 CORN & CUCUMBER CHAAT 100 g 82 CUT FRUITS 100 g 315 CHICKEN SANDWICH 100 g 283 CHICKEN SANDWICH 100 g 144.45
VEG CUTLET 1 PC 120 GRILLED COTTAGE CHEESE ROLL 1 PC 122 VEG MOMOS 100 g 137 PANJABI SAMOSA 1 PC 250 CORN & SPINACH VOL AU VENTS 1 PC 240 CHEESE BALLS 100 g 402 SUBWAY SANDWICH 1 PC 68 SABUDANA VADA 100 g 282 GOBI PAKODA 100 g 286 VEG LOLYPUP 1 PC 158 CORN & CUCUMBER CHAAT 100 g 82 CUT FRUITS 100 g 315 CHICKEN SANDWICH 100 g 283 CHANNA CHAT 100 g 144.45
GRILLED COTTAGE CHEESE ROLL 1 PC 122 VEG MOMOS 100 g 137 PANJABI SAMOSA 1 PC 250 CORN & SPINACH VOL AU VENTS 1 PC 240 CHEESE BALLS 100 g 402 SUBWAY SANDWICH 1 PC 68 SABUDANA VADA 100 g 282 GOBI PAKODA 100 g 286 VEG LOLYPUP 1 PC 38 ROMALI EGG ROLL 1 PC 158 CORN & CUCUMBER CHAAT 100 g 63-84 PUNUGULU 100 g 315 CHICKEN SANDWICH 100 g 283 CHANNA CHAT 100 g 144.45
VEG MOMOS 100 g 137 PANJABI SAMOSA 1 PC 250 CORN & SPINACH VOL AU VENTS 1 PC 240 CHEESE BALLS 100 g 402 SUBWAY SANDWICH 1 PC 68 SABUDANA VADA 100 g 282 GOBI PAKODA 100 g 286 VEG LOLYPUP 1 PC 38 ROMALI EGG ROLL 1 PC 158 CORN & CUCUMBER CHAAT 100 g 63-84 PUNUGULU 100 g 315 CHICKEN SANDWICH 100 g 283 CHANNA CHAT 100 g 144.45
PANJABI SAMOSA 1 PC 250 CORN & SPINACH VOL AU VENTS 1 PC 240 CHEESE BALLS 100 g 402 SUBWAY SANDWICH 1 PC 68 SABUDANA VADA 100 g 282 GOBI PAKODA 100 g 286 VEG LOLYPUP 1 PC 38 ROMALI EGG ROLL 1 PC 158 CORN & CUCUMBER CHAAT 100 g 63-84 PUNUGULU 100 g 315 CHICKEN SANDWICH 100 g 144.45
PANJABI SAMOSA 1 PC 230 CORN & SPINACH VOL AU VENTS 1 PC 240 CHEESE BALLS 100 g 402 SUBWAY SANDWICH 1 PC 68 SABUDANA VADA 100 g 282 GOBI PAKODA 100 g 286 VEG LOLYPUP 1 PC 38 ROMALI EGG ROLL 1 PC 158 CORN & CUCUMBER CHAAT 100 g 63-84 PUNUGULU 100 g 315 CHICKEN SANDWICH 100 g 144.45
CORN & SPINACH VOL AU VENTS 1 PC 240 CHEESE BALLS 100 g 402 SUBWAY SANDWICH 1 PC 68 SABUDANA VADA 100 g 282 GOBI PAKODA 100 g 286 VEG LOLYPUP 1 PC 38 ROMALI EGG ROLL 1 PC 158 CORN & CUCUMBER CHAAT 100 g 82 CUT FRUITS 100 g 63-84 PUNUGULU 100 g 315 CHICKEN SANDWICH 100 g 144.45
CHEESE BALLS 100 g 402 SUBWAY SANDWICH 1 PC 68 SABUDANA VADA 100 g 282 GOBI PAKODA 100 g 286 VEG LOLYPUP 1 PC 38 ROMALI EGG ROLL 1 PC 158 CORN & CUCUMBER CHAAT 100 g 82 CUT FRUITS 100 g 63-84 PUNUGULU 100 g 315 CHICKEN SANDWICH 100 g 144.45
SUBWAY SANDWICH 1 PC 68 SABUDANA VADA 100 g 282 GOBI PAKODA 100 g 286 VEG LOLYPUP 1 PC 38 ROMALI EGG ROLL 1 PC 158 CORN & CUCUMBER CHAAT 100 g 82 CUT FRUITS 100 g 63-84 PUNUGULU 100 g 315 CHICKEN SANDWICH 100 g 144.45
SABUDANA VADA 100 g 282 GOBI PAKODA 100 g 286 VEG LOLYPUP 1 PC 38 ROMALI EGG ROLL 1 PC 158 CORN & CUCUMBER CHAAT 100 g 82 CUT FRUITS 100 g 63-84 PUNUGULU 100 g 315 CHICKEN SANDWICH 100 g 144.45
GOBI PAKODA 100 g 286 VEG LOLYPUP 1 PC 38 ROMALI EGG ROLL 1 PC 158 CORN & CUCUMBER CHAAT 100 g 82 CUT FRUITS 100 g 63-84 PUNUGULU 100 g 315 CHICKEN SANDWICH 100 g 144.45
VEG LOLYPUP 1 PC 38 ROMALI EGG ROLL 1 PC 158 CORN & CUCUMBER CHAAT 100 g 82 CUT FRUITS 100 g 63-84 PUNUGULU 100 g 315 CHICKEN SANDWICH 100 g 144.45
ROMALI EGG ROLL 1 PC 158 CORN & CUCUMBER CHAAT 100 g 82 CUT FRUITS 100 g 63-84 PUNUGULU 100 g 315 CHICKEN SANDWICH 100 g 283 CHANNA CHAT 100 g 144.45
CORN & CUCUMBER CHAAT 100 g 82 CUT FRUITS 100 g 63-84 PUNUGULU 100 g 315 CHICKEN SANDWICH 100 g 283 CHANNA CHAT 100 g 144.45
CUT FRUITS 100 g 63-84 PUNUGULU 100 g 315 CHICKEN SANDWICH 100 g 283 CHANNA CHAT 100 g 144.45
PONOGOLO 100 g 315 CHICKEN SANDWICH 100 g 283 CHANNA CHAT 100 g 144.45
CHICKEN SANDWICH 100 g 283 CHANNA CHAT 100 g 144.45
CHANNA CHAT [100 g 144.45
RED CHUINEY 100 g 263
VEG NACHOS 100 g 343
EGG PAKODA 100 g 155 CDDOULT WITH CUCUMPED CALAD 100 g 74
DANU DOODI
MASALA DOORI
ONION & CABBAGE ΡΔΚΟDΔ 100 σ 220
CORN CHAAT 100 g 217
VEG BURGER 1 PC 124
EGG BONDA 100 g 155

CHILLY BAJJI	1 PC	127
RAW BANANA BAJJI	1 PC	90
CHICKEN KHEEMA DOSA	I PC	94
PANI POORI	100 g	307
SAMOSA CHAAT	100 g	292
PEANUT & CHANNA SUNDEL	100 g	316
CHICKEN SPRING ROLL	1 PC	124
CHICKEN LOLYPUP	1 PC	89
KOLKATA CHICKEN KATHI ROLL	1 Pc	337
PODI IDLY	1 PC	140
CHICKEN VADA PAV	1 PC	114.68
MASALA VADA RAGADA CHAAT	100 g	293
LEMON MINT COOLER	1 glass	104
VEG SPRING ROLL	1 PC	73
EGG PUFFS	1 PC	193
PANEER KHEEMA DOSA	1 PC	274
GREEN CHUTNEY	100 g	80
CHANNA & PEANUT CHAT	100 g	144.4
CHICKEN NACHOS	100 g	387
CHANNA SUNDEL	100 g	205
CHICKEN MOMOS	1 PC	78
EGG VADA PAV	1 PC	313
CORN VEG PATTI SAMOSA	1 PC	236
CHICKEN TIKKA SAMOSA	1 PC	292
MUSHROOM MOMOS	1 PC	30
CHICKEN SHEEK KABAB	100 g	151
SCHEZWAN SAUCE	20 g	40
MIX VEG PAKODA	100 g	118
VEG KHEEMA ROLL	1 PC	303
CHICKEN BURGER	1 PC	221
KACHORI CHAAT	100 g	172
CHICKEN HARA BHARA KABAB	100 g	159
CORN PATTI SAMOSA	1 PC	236
MINI ALOO CHEESE DOSA	1 PC	287.4
CHICKEN PANJABI SAMOSA	1 PC	210
BLACK CHANNA SUNDEL	100 g	205
CHICKEN TIKKA FRANKIE ROLL	1 PC	236.3
SWEET CHUTNEY	20 g	60
HEEREKAI BAJJI	1 PC	78.4
CHICKEN NUGGETS	1 PC	59
MINI VEG CHEESE BURGER	1 PC	210
GRILLED MUSHROOM	100 g	89
CHICKEN MANCHURIAN MOMOS	100 g	394
CHILLY BAJJI & RAW BANANA BAJJI	1 PC /1PC	127/90
VEG SANDWICH	100 g	179
CRISPY CORN	100 g	289

GRILLED CORN & MUSHROOM	100 g	92.5
MIX SPROUT SALAD	100 g	137
VEG SCHEZWAN SPRING ROLL	1 PC	80
MINI VEG BURGER	1 PC	180
CHUTNEY	100 g	100
MINI MASALA DOSA	1 PC	107
GRILLED MUSHROOM & CORN	100 g	92.5
SPROUT & CUCUMBER CHAAT	100 g	74
MANGO LASSI	1 glass	150
BADAM MILK SHAKE	1 glass	177.1
MILLET KITCHIDI	100 g	210
POMEGRANATE JUICE	1 glass	136
PANEER SHASHLIK	100 g	166
CRIPSY VEG BITES	100 g	139.6
PINEAPPLE CHEESE AND CHERRY STICKS	100 g	113
CHICKEN POP CORN	100 g	351
FISH FINGER	100 g	249
MASALA CASHEW NUT FRY	100 g	415
WAFERS SALT AND SPICY	100 g	478
VADA PAV	1 PC	150
HERBED ROAST MAKHANA	100 g	360
LITCHI JUICE	1 glass	150
RAGI SEMYA BATH	100 g	195
VEG SUBWAY SANDWICH	1 PC	189
PEANUT CHIKKI	1 PC	124.4
MEXCIAN CORN SALAD	100 g	210
RAGI MALT	1 cup	127
MINI PODI DOSA	50 g	80
BOILED EGGS	1 PC	63
DHAI PAPADI CHAATS	100 g	189
PANEER KATTI ROLL	1 PC	235
EGG KA FUNDA	1 PC	70 -225
WHITE CHUTNEY	100 g	148
BROCCOLI SALAD	100 g	206
DATES LASSI	1 glass	155
GRAPE JUICE	1 glass	154
COCONUT PUTTU	1 PC	260
AVOCADO SALAD	100 G	168
COTTAGECHEESE & VEG FAJITA	1 PC	310
SALMON SALAD	100 g	195
CHOCOLATE MILK SHAKE	1 glass	286
MINI CHEESE DOSA	1 PC	256.4
COTTON CANDY	1 Stick	110
MILLET UPPMA	100 g	279
STRAWBERRY LASSI	1 glass	160
BLACK BEAN AND CORN SALAD	100 g	80

CAESAR SALAD	100 g	190
GRILLED BROCCOLI & CORN	100 g	80.5
CORN SPINACH SANDWICH	1 PC	196
FISH CUTLET	1 PC	80
GRILLED MUSHROOM, CORN & BROCCOLI	100 g	94
DHAI BELLA	100 g	242
SPICY COURGETTE KOFTAS	1 PC	38
GHEE FRIED MAKKANA	100 g	216
CUCUMBER AND LEMON JUICE	1 glass	71
KOSAMBARI SALAD	100 g	108.6
CARROT JUICE	1 glass	94
SABUDANA TIKKI CHAATS	100 g	252
UNNIAPPAM	1 PC	97
BLACK GRAPE JUICE	1 glass	154
MOMOS SAUCE	25 g	31.5
APPLE MILK SHAKE	1 glass	225.5
VEG SCHEZWAN ROLL	1 PC	80
PANEER PUFFS	1 PC	170
OATS UPMA	100 g	207
BOILED PEANUT CHAAT	100 g	159.8
FRESH JUICE	1 glass	112
PANEER TIKKA WRAPS	100 g	114
GRILLED MUSHRROM AND ZUCHINI	100 a	60.9
	100 g	00.5
SPROUT WITH ANAR SALAD	100 g	74
SPROUT WITH ANAR SALAD SALSA	100 g 100 g 25 g	74 14
SPROUT WITH ANAR SALAD SALSA PRAWN & ASSORTED VEG COCKTAIL	100 g 100 g 25 g 100 g	74 14 142
SPROUT WITH ANAR SALAD SALSA PRAWN & ASSORTED VEG COCKTAIL PAPDI CHAT	100 g 100 g 25 g 100 g 100 g	74 14 142 189
SPROUT WITH ANAR SALAD SALSA PRAWN & ASSORTED VEG COCKTAIL PAPDI CHAT BASIL AND AMERICAN CORN GRILLED	100 g 25 g 100 g 100 g 100 g	74 14 142 189 132
SPROUT WITH ANAR SALAD SALSA PRAWN & ASSORTED VEG COCKTAIL PAPDI CHAT BASIL AND AMERICAN CORN GRILLED WALDROF SALAD	100 g 100 g 25 g 100 g 100 g 100 g 100 g	74 14 142 189 132 141
SPROUT WITH ANAR SALAD SALSA PRAWN & ASSORTED VEG COCKTAIL PAPDI CHAT BASIL AND AMERICAN CORN GRILLED WALDROF SALAD TAWA CHICKEN TIKKA	100 g 100 g 25 g 100 g 100 g 100 g 100 g 100 g	74 14 142 189 132 141 161
SPROUT WITH ANAR SALAD SALSA PRAWN & ASSORTED VEG COCKTAIL PAPDI CHAT BASIL AND AMERICAN CORN GRILLED WALDROF SALAD TAWA CHICKEN TIKKA CHILLY CHICKEN	100 g 100 g 25 g 100 g	74 14 142 189 132 141 161 124
SPROUT WITH ANAR SALAD SALSA PRAWN & ASSORTED VEG COCKTAIL PAPDI CHAT BASIL AND AMERICAN CORN GRILLED WALDROF SALAD TAWA CHICKEN TIKKA CHILLY CHICKEN HARA BHARA KABAB	100 g 100 g 25 g 100 g	74 14 142 189 132 141 161 124 159
SPROUT WITH ANAR SALAD SALSA PRAWN & ASSORTED VEG COCKTAIL PAPDI CHAT BASIL AND AMERICAN CORN GRILLED WALDROF SALAD TAWA CHICKEN TIKKA CHILLY CHICKEN HARA BHARA KABAB PANEER MOMOS MANCHURIAN	100 g 100 g 25 g 100 g	74 14 142 189 132 141 161 124 159 235.5
SPROUT WITH ANAR SALAD SALSA PRAWN & ASSORTED VEG COCKTAIL PAPDI CHAT BASIL AND AMERICAN CORN GRILLED WALDROF SALAD TAWA CHICKEN TIKKA CHILLY CHICKEN HARA BHARA KABAB PANEER MOMOS MANCHURIAN ROASTED MASALA PEANUT	100 g 100 g 25 g 100 g	74 14 142 189 132 141 161 124 159 235.5 625
SPROUT WITH ANAR SALAD SALSA PRAWN & ASSORTED VEG COCKTAIL PAPDI CHAT BASIL AND AMERICAN CORN GRILLED WALDROF SALAD TAWA CHICKEN TIKKA CHILLY CHICKEN HARA BHARA KABAB PANEER MOMOS MANCHURIAN ROASTED MASALA PEANUT ROASTED PEANUT CHAAT	100 g 100 g 25 g 100 g	74 14 142 189 132 141 161 124 159 235.5 625 293
SPROUT WITH ANAR SALAD SALSA PRAWN & ASSORTED VEG COCKTAIL PAPDI CHAT BASIL AND AMERICAN CORN GRILLED WALDROF SALAD TAWA CHICKEN TIKKA CHILLY CHICKEN HARA BHARA KABAB PANEER MOMOS MANCHURIAN ROASTED MASALA PEANUT ROASTED PEANUT CHAAT ROSE MILK	100 g 100 g 25 g 100 g	74 14 142 189 132 141 161 124 159 235.5 625 293 147
SPROUT WITH ANAR SALAD SALSA PRAWN & ASSORTED VEG COCKTAIL PAPDI CHAT BASIL AND AMERICAN CORN GRILLED WALDROF SALAD TAWA CHICKEN TIKKA CHILLY CHICKEN HARA BHARA KABAB PANEER MOMOS MANCHURIAN ROASTED MASALA PEANUT ROASTED PEANUT CHAAT ROSE MILK VEG CHEESE FAJITHA	100 g 100 g 25 g 100 g 1 glass 1 PC	74 14 142 189 132 141 161 124 159 235.5 625 293 147 210
SPROUT WITH ANAR SALAD SALSA PRAWN & ASSORTED VEG COCKTAIL PAPDI CHAT BASIL AND AMERICAN CORN GRILLED WALDROF SALAD TAWA CHICKEN TIKKA CHILLY CHICKEN HARA BHARA KABAB PANEER MOMOS MANCHURIAN ROASTED MASALA PEANUT ROASTED PEANUT CHAAT ROSE MILK VEG CHEESE FAJITHA MASALA PAPAD	100 g 100 g 25 g 100 g	74 14 142 189 132 141 161 124 159 235.5 625 293 147 210 309
SPROUT WITH ANAR SALAD SALSA PRAWN & ASSORTED VEG COCKTAIL PAPDI CHAT BASIL AND AMERICAN CORN GRILLED WALDROF SALAD TAWA CHICKEN TIKKA CHILLY CHICKEN HARA BHARA KABAB PANEER MOMOS MANCHURIAN ROASTED MASALA PEANUT ROASTED PEANUT CHAAT ROSE MILK VEG CHEESE FAJITHA MASALA PAPAD ONION PATTI SAMOSA	100 g 100 g 25 g 100 g 1 glass 1 PC 100 g 1 PC	74 14 142 189 132 141 161 124 159 235.5 625 293 147 210 309 175

Dinner		
Food	Serving	Calories
FRESH JUICE	1 glass	112
SWEET CORN VEG SOUP	100 g	134
GREEN SALAD	100 g	23
PLAIN CHAPPATI	I PC	70
GOBI PARATHA	I PC	240
ALOO CAPSICUM DRY	100 g	114
MUTTER MASALA	100 g	123
TOMATO RICE	100 g	120
SAMBAR	100 g	110
RASAM	100 g	60
PLAIN RICE	100 g	126
DAL KHOLAPURI	100 g	107
MYSORE PAK	1 PC	181
CURD	100 g	61
PAPAD	100 g	371
PICKLE	10 g	14
GINGER CHICKEN	100 g	210
TAWA BABYCORN SALT & PEPPER	100 g	160
CUT FRUITS	100 g	63-84
PEPPER RASAM SOUP	1 Cup	33
TOSSED SALAD	100 g	40
AJWIN PARATHA	1 PC	172
CARROT BEANS FUGATH	100 g	243
CHAWLI MASALA	100 g	105
JEERA PULAO	100 g	204
DAL PALAK	100 g	166
RASA GULLA	100 g	321
CHINESE CHILLY CHICKEN	100 g	120
VEG FRIED RICE	100 g	163
VEG CLEAR SOUP	1 Cup	60
PUTHINA PARATHA	1 PC	142
VEG KHOLAPURI DRY	100 g	205
SOYA MAKHNI	100 g	178
PEAS PULAO	100 g	145
	100 g	149
		84
PEPPER CHICKEN DRY	100 g	266 1.01
	100 g	101
		90
	100 ~	20U 122
	100 g	200
	100 g	200
	100 9	<i>~~</i> /

ΤΟΜΑΤΟ ΡΑΡΡυ	100 g	160
ICE CREAM	1 Scoop	207
DHABA CHICKEN CURRY	100 g	124
HERBED ROAST POTATO	100 g	149
GINGER SOUP	1 Cup	116
MIX VEG PARATHA	1 PC	190
BHAGEN BARTHA	100 g	112
ALOO PALAK CURRY	100 g	149
KASHMIRI DRY FRUIT PULAO	100 g	236
CHANNA DAL TADKA	100 g	305
BADAM POORI	1 PC	150
EGG CURRY(HOME MADE)	100 gms	156
PASTA	100 g	131
METHI PARATHA	1 PC	201
BHINDI KURKURI	100 g	110
LOUKI GREEN MOONG MASALA	100 g	136
HARIYALI VEG PULAO	100 g	276
GUNTUR CHICKEN	100 g	196
SUKKA ARBI FRY	100 g	220
VEG KURMA	100 g	109.47
PANEER PULAO	100 g	276
DAL MELONI	100 g	138
BURFI	1 PC	125
CHICKEN MANCHURIAN SEMI	100 g	210
VEG RICE	100 g	99
SUBZ HYDRABADI	100 g	108
AFGANI PULAO	100 g	180
ANDHRA CHILLY CHICKEN	100 g	102
TAWA HARIYALI ALOO TIKKA	100 g	124
TOM YUM SOUP	1 Cup	98
PANEER JALFREZI	100 g	266
CHANNA MASALA	100 g	109.74
DAL LAHSOONI	100 g	142
MOONG DAL PAYASAM	100 g	280
BUTTER CHICKEN	100 g	202
DOSA	1 PC	160
PALAK & CORN SOUP	1 Cup	56
MULLI PARATHA	1 PC	78
BABYCORN 65	100 g	134
ALOO MUTTER CURRY	100 g	155
MOTHI PULAO	100 g	188
MOONG DAL TADKA	100 g	128
EGG ROST(HOME MADE)	100 g	147
VEG NOODLES	100 g	137
LADOO	I PC	155
KADAI VEG DRY	100 g	172

PALAK PANEER	100 g	134
HARIYALI ALOO TIKKA	100 g	118
GOBI MUTTER DRY	100 g	194
VEG PULAO	100 g	231
CHICKEN 65	100 g	119
CHANNA DAL TADKA	100 g	123
BADHUSA	1 PC	178
ALOO PALAK DRY	100 g	203
KASHMIRI KOFTA CURRY	100 g	178
VEG AFGANI PULAO	100 g	188
KALAKAND	1 PC	120
CHICKEN RASAM SOUP	1 Cup	132
VEG FRIED RICE	100 g	163
BHINDI JAIPURI	100 g	182
PANEER MAKAI MUTTER	100 g	234
PALAK & CORN RICE	100 g	235
SEMIYA PAYASAM	100 g	244.13
PEPPER CHICKEN	100 g	266
SOYA FRESH PEAS KADAI	100 g	183
VEG CHETTINAD KURMA	100 g	134
PANEER BIRIYANI	100 g	204
CARROT HALWA	100 g	104
HARIYALI ALOO ROAST	100 g	104
TAWA VEGETABLES	100 g	184
CORN MUSHROOM CURRY	100 g	145
GHEE RICE	100 g	141
RAWA LADOO	1 PC	128
TAWA CORN SALT & PEPPER	100 g	160
VEG HARIYALI GRAVY	100 g	174
KADAI VEG	100 g	165
HOT & SOUR VEG SOUP	1 Cup	142
SOYA MUTTER KURMA	100 g	124
DAL TIRINGA	100 g	117
TAWA VEG SHEEK KABAB	100 g	207
GREEN PEAS PARATHAS	1 PC	164
VEG CHETTINADU CURRY	100 g	130
ΜΟΤΗΙ ΡΑΚ	100 g	230
VEGETABLE SOUP	1 cup	134
LEMON CORIANDER SOUP	1 Cup	73
KADALA CURRY	100 g	127
VEG KHUSKA	100 g	113
VEG BALL MANCHURIAN	100	270
PASTA-LIVE	100 g	131-267
LEMON & MINT COOLER	1 glass	104
KOTHU PARATHA	100 g	234
PANEER PARATHAS	1 PC	124

PALAK PARATHAS I PC 145 VEG JALFREZI 100 g 181 HARYALI BABY ALOO ROAST 100 g 104 MIX VEG SAGU 100 g 330 VEG MAKHANWALA 100 g 204 METHI MALAI MUTTER 100 g 113 DAL PANCHMEL 100 g 129 BASEN LADDU 1 PC 144 CHUM CHUM 1 PC 144 CHUKEN KOLHAPURI 100 g 224 KADAI CHICKEN 100 g 150 CHICKEN CHETTINAD 100 g 215 HERB ROAST CHICKEN 100 g 100 g DAL SHORBA 1 cup 183 MINT PEAS PULAO 100 g 123 MANGOLIAN BARBEQUE - RICE 100 g 321 ZARDA PULAO 100 g 266 MASOOR DAL 100 g 266 GREAM OF PALAK SOUP 1 cup 83 PEPPER CHICKEN DRY 100 g 266 FRESH JUICE 1 glass 1111 MIXED FRUIT J
VEG JALFREZI 100 g 181 HARYALI BABY ALOO ROAST 100 g 330 MIX VEG SAGU 100 g 330 VEG MAKHANWALA 100 g 204 METHI MALAI MUTTER 100 g 113 DAL PANCHMEL 100 g 129 BASEN LADDU 1 PC 144 CHUM CHUM 1 PC 144 CHUM CHUM 1 PC 185 CHICKEN KOLHAPURI 100 g 224 KADAI CHICKEN 100 g 150 CHICKEN CHETTINAD 100 g 215 HERB ROAST CHICKEN 100 g 184 DAL SHORBA 1 cup 183 MINT PEAS PULAO 100 g 263 ARBI MASALA 100 g 123 MANGOLIAN BARBEQUE - RICE 100 g 321 ZARDA PULAO 100 g 266 FRESH JUICE 1 glass 111 MIXED FRUIT JUICE 1 glass 121 PAPPAYA JUICE 1 glass 121 PAPAYA JUICE
HARYALI BABY ALOO ROAST 100 g 104 MIX VEG SAGU 100 g 330 VEG MAKHANWALA 100 g 204 METHI MALAI MUTTER 100 g 113 DAL PANCHMEL 100 g 129 BASEN LADDU 1 PC 144 CHUM CHUM 1 PC 144 CHUM CHUM 1 PC 185 CHICKEN KOLHAPURI 100 g 224 KADAI CHICKEN 100 g 150 CHICKEN CHETTINAD 100 g 200 GRILLED TAWA VEGETABLES 100 g 184 DAL SHORBA 1 cup 183 MINT PEAS PULAO 100 g 263 ARBI MASALA 100 g 123 MANGOLIAN BARBEQUE - RICE 100 g 321 ZARDA PULAO 100 g 346 MASOOR DAL 100 g 16 CREAM OF PALAK SOUP 1 cup 83 PEPPER CHICKEN DRY 100 g 266 FRESH JUICE 1 glass 111 MIXED FRUIT JUICE 1 glass 121 PAPAYA JUICE 1 glass
MIX VEG SAGU 100 g 330 VEG MAKHANWALA 100 g 204 METHI MALAI MUTTER 100 g 113 DAL PANCHMEL 100 g 129 BASEN LADDU 1 PC 144 CHUM CHUM 1 PC 185 CHICKEN KOLHAPURI 100 g 224 KADAI CHICKEN 100 g 150 CHICKEN KOLHAPURI 100 g 200 GRILLED TAWA VEGETABLES 100 g 184 DAL SHORBA 1 cup 183 MINT PEAS PULAO 100 g 263 ARBI MASALA 100 g 116 CREAM OF PALAK SOUP 1 Cup 83 PEPPER CHICKEN DRY 100 g 266 FRESH JUICE 1 glass 111 MIXED FRUIT JUICE 1 glass 112 ORANGE JUICE 1 glass 121 PAPPAYA JUICE 1 glass 142 MUSK MELON JUICE 1 glass 133 GRAPE JUICE 1 glass 142 MUSK MELON JUI
VEG MAKHANWALA 100 g 204 METHI MALAI MUTTER 100 g 113 DAL PANCHMEL 100 g 129 BASEN LADDU 1 PC 144 CHUM CHUM 1 PC 185 CHICKEN KOLHAPURI 100 g 224 KADAI CHICKEN 100 g 150 CHICKEN KOLHAPURI 100 g 215 HERB ROAST CHICKEN 100 g 200 GRILLED TAWA VEGETABLES 100 g 184 DAL SHORBA 1 cup 183 MINT PEAS PULAO 100 g 263 ARBI MASALA 100 g 116 CREAM OF PALAK SOUP 1 Cup 83 PEPPER CHICKEN DRY 100 g 266 FRESH JUICE 1 glass 111 MIXED FRUIT JUICE 1 glass 112 ORANGE JUICE 1 glass 121 PAPPAYA JUICE 1 glass 142 MUSK MELON JUICE 1 glass 133 GRAPE JUICE 1 glass 142 MUSK MEL
METHI MALAI MUTTER 100 g 113 DAL PANCHMEL 100 g 129 BASEN LADDU 1 PC 144 CHUM CHUM 1 PC 185 CHICKEN KOLHAPURI 100 g 224 KADAI CHICKEN 100 g 150 CHICKEN CHETTINAD 100 g 215 HERB ROAST CHICKEN 100 g 200 GRILLED TAWA VEGETABLES 100 g 184 DAL SHORBA 1 cup 183 MINT PEAS PULAO 100 g 263 ARBI MASALA 100 g 123 MANGOLIAN BARBEQUE - RICE 100 g 346 MASOOR DAL 100 g 116 CREAM OF PALAK SOUP 1 Cup 83 PEPPER CHICKEN DRY 100 g 266 FRESH JUICE 1 glass 111 MIXED FRUIT JUICE 1 glass 121 ORANGE JUICE 1 glass 122 ORANGE JUICE 1 glass 133 GRAPE JUICE 1 glass 121 PAPPAY
DAL PANCHMEL 100 g 129 BASEN LADDU 1 PC 144 CHUM CHUM 1 PC 185 CHICKEN KOLHAPURI 100 g 224 KADAI CHICKEN 100 g 150 CHICKEN CHETTINAD 100 g 215 HERB ROAST CHICKEN 100 g 200 GRILLED TAWA VEGETABLES 100 g 184 DAL SHORBA 1 cup 183 MINT PEAS PULAO 100 g 263 ARBI MASALA 100 g 123 MANGOLIAN BARBEQUE - RICE 100 g 346 MASOOR DAL 100 g 116 CREAM OF PALAK SOUP 1 Cup 83 PEPPER CHICKEN DRY 100 g 266 FRESH JUICE 1 glass 111 MIXED FRUIT JUICE 1 glass 121 ORANGE JUICE 1 glass 121 PAPPAYA JUICE 1 glass 121 PAPPAYA JUICE 1 glass 133 GRAPE JUICE 1 glass 133 GRAPE JU
BASEN LADDU 1 PC 144 CHUM CHUM 1 PC 185 CHICKEN KOLHAPURI 100 g 224 KADAI CHICKEN 100 g 150 CHICKEN CHETTINAD 100 g 215 HERB ROAST CHICKEN 100 g 200 GRILLED TAWA VEGETABLES 100 g 184 DAL SHORBA 1 cup 183 MINT PEAS PULAO 100 g 263 ARBI MASALA 100 g 123 MANGOLIAN BARBEQUE - RICE 100 g 321 ZARDA PULAO 100 g 346 MASOOR DAL 100 g 116 CREAM OF PALAK SOUP 1 Cup 83 PEPPER CHICKEN DRY 100 g 266 FRESH JUICE 1 glass 111 MIXED FRUIT JUICE 1 glass 112 ORANGE JUICE 1 glass 121 PAPPAYA JUICE 1 glass 142 MUSK MELON JUICE 1 glass 133 GRAPE JUICE 1 glass 154 KIWI J
CHUM CHUM 1 PC 185 CHICKEN KOLHAPURI 100 g 224 KADAI CHICKEN 100 g 215 HERB ROAST CHICKEN 100 g 200 GRILLED TAWA VEGETABLES 100 g 184 DAL SHORBA 1 cup 183 MINT PEAS PULAO 100 g 263 ARBI MASALA 100 g 321 ZARDA PULAO 100 g 346 MANGOLIAN BARBEQUE - RICE 100 g 346 MASOOR DAL 100 g 116 CREAM OF PALAK SOUP 1 Cup 83 PEPPER CHICKEN DRY 100 g 266 FRESH JUICE 1 glass 111 MIXED FRUIT JUICE 1 glass 112 ORANGE JUICE 1 glass 121 PAPPAYA JUICE 1 glass 142 MUSK MELON JUICE 1 glass 133 GRAPE JUICE 1 glass 154 KIWI JUICE 1 glass 154 KIWI JUICE 1 glass 170 WATER MELON JUICE 1 glass 170 WATER MELON JUICE
CHICKEN KOLHAPURI 100 g 224 KADAI CHICKEN 100 g 150 CHICKEN CHETTINAD 100 g 215 HERB ROAST CHICKEN 100 g 200 GRILLED TAWA VEGETABLES 100 g 184 DAL SHORBA 1 cup 183 MINT PEAS PULAO 100 g 263 ARBI MASALA 100 g 123 MANGOLIAN BARBEQUE - RICE 100 g 346 MASOOR DAL 100 g 116 CREAM OF PALAK SOUP 1 Cup 83 PEPPER CHICKEN DRY 100 g 266 FRESH JUICE 1 glass 111 MIXED FRUIT JUICE 1 glass 112 ORANGE JUICE 1 glass 121 PAPPAYA JUICE 1 glass 142 MUSK MELON JUICE 1 glass 133 GRAPE JUICE 1 glass 154 KIWI JUICE 1 glass 154 MIWI JUICE 1 glass 170 WATER MELON JUICE 1 glass 170
KADAI CHICKEN 100 g 150 CHICKEN CHETTINAD 100 g 215 HERB ROAST CHICKEN 100 g 200 GRILLED TAWA VEGETABLES 100 g 184 DAL SHORBA 1 cup 183 MINT PEAS PULAO 100 g 263 ARBI MASALA 100 g 123 MANGOLIAN BARBEQUE - RICE 100 g 346 MASOOR DAL 100 g 116 CREAM OF PALAK SOUP 1 Cup 83 PEPPER CHICKEN DRY 100 g 266 FRESH JUICE 1 glass 111 MIXED FRUIT JUICE 1 glass 112 ORANGE JUICE 1 glass 121 PAPPAYA JUICE 1 glass 142 MUSK MELON JUICE 1 glass 133 GRAPE JUICE 1 glass 154 KIWI JUICE 1 glass 170 WATER MELON JUICE 1 glass 170 WATER MELON JUICE 1 glass 170 WATER MELON JUICE 1 glass 170
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MOONG DAL PARATHA 1 PC 113
DHABA DAL 100 g 158
PANEER BUTTER MASALA 100 g 146
PANJABI DAL 100 g 182
MALABAR CHICKEN CURRY 100 g 164
TOMATO PULAO 100 g 115
FRUIT PANAKAM 1 glass 87
DOODH BEDA 1 PC 103

SOYA KHEEMA PARATHA	1 PC	130
MUTTER PANEER	100 g	189
HARIYALI ROAST POTATO	100 g	154
CHICKEN ROGAN JOSH	100 g	141.5
ALOO PANEER PARATHA	1 PC	274
RAJMA PARATHA	1 PC	178
KADAI SOYA MASALA	100 g	293
SOYA MUTTER PULAO	100 g	210
JEERA RICE	100 g	204
CHICKEN KABAB	100 g	151
CHICKEN SHEEK KABAB	100 g	151
KOTTHU SEMIYA	100 g	289
VEG HYDRABADI	100 g	108
METHI DAL	100 g	152
BABYCORN CARROT SABZI	100 g	86.68
JELABI	100 g	300
HERBED RICE	100 g	126
RASAMALAI	1 PC	128
SOOKHA ALOO METHI DRY	100 g	121
MUSHROOM SOUP	1 cup	96
CORN CAPSICUM MASALA	100 g	134
MUSHROOM MAKKAI MUTTER	100 g	123
DATES PAYASAM	100 g	180
ALOO BAIGAN MASALA	100 g	104
STRAWBERRY LASSI	1 glass	160
VEG BROTH	1 cup	70
SPINACH SOUP	1	202
	1 Cup	203
VEG PEPPER DRY	1 Cup 100 g	203 280
VEG PEPPER DRY BABYCORN PEPPER CURRY	1 Cup 100 g 100 g	203 280 146
VEG PEPPER DRY BABYCORN PEPPER CURRY LOUKI LACHADAR	100 g 100 g 100 g	203 280 146 108
VEG PEPPER DRY BABYCORN PEPPER CURRY LOUKI LACHADAR CHANNA DAL PALAK	100 g 100 g 100 g 100 g	203 280 146 108 140
VEG PEPPER DRY BABYCORN PEPPER CURRY LOUKI LACHADAR CHANNA DAL PALAK MALKA MASOOR DAL	100 g 100 g 100 g 100 g 100 g	203 280 146 108 140 274
VEG PEPPER DRY BABYCORN PEPPER CURRY LOUKI LACHADAR CHANNA DAL PALAK MALKA MASOOR DAL ALOO GOBI DRY	100 g 100 g 100 g 100 g 100 g 100 g	203 280 146 108 140 274 174
VEG PEPPER DRY BABYCORN PEPPER CURRY LOUKI LACHADAR CHANNA DAL PALAK MALKA MASOOR DAL ALOO GOBI DRY GARLIC RASAM	100 g 100 g 100 g 100 g 100 g 100 g 100 g	203 280 146 108 140 274 174 70
VEG PEPPER DRY BABYCORN PEPPER CURRY LOUKI LACHADAR CHANNA DAL PALAK MALKA MASOOR DAL ALOO GOBI DRY GARLIC RASAM DAL AMRITSARI	100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g	203 280 146 108 140 274 174 70 232
VEG PEPPER DRY BABYCORN PEPPER CURRY LOUKI LACHADAR CHANNA DAL PALAK MALKA MASOOR DAL ALOO GOBI DRY GARLIC RASAM DAL AMRITSARI KERALA CHICKEN CURRY	100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g	203 280 146 108 140 274 174 70 232 126.8
VEG PEPPER DRY BABYCORN PEPPER CURRY LOUKI LACHADAR CHANNA DAL PALAK MALKA MASOOR DAL ALOO GOBI DRY GARLIC RASAM DAL AMRITSARI KERALA CHICKEN CURRY LOUKI & CHOW CHOW SAMBAR	100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g 100 g	203 280 146 108 140 274 174 70 232 126.8 138
VEG PEPPER DRY BABYCORN PEPPER CURRY LOUKI LACHADAR CHANNA DAL PALAK MALKA MASOOR DAL ALOO GOBI DRY GARLIC RASAM DAL AMRITSARI KERALA CHICKEN CURRY LOUKI & CHOW CHOW SAMBAR RAGI LADDU	1 Cup 100 g 100 g	203 280 146 108 140 274 174 70 232 126.8 138 118
VEG PEPPER DRY BABYCORN PEPPER CURRY LOUKI LACHADAR CHANNA DAL PALAK MALKA MASOOR DAL ALOO GOBI DRY GARLIC RASAM DAL AMRITSARI KERALA CHICKEN CURRY LOUKI & CHOW CHOW SAMBAR RAGI LADDU HARYALI BABY ALOO ROAST	1 Cup 100 g 100 g	203 280 146 108 140 274 174 70 232 126.8 138 118 104
VEG PEPPER DRY BABYCORN PEPPER CURRY LOUKI LACHADAR CHANNA DAL PALAK MALKA MASOOR DAL ALOO GOBI DRY GARLIC RASAM DAL AMRITSARI KERALA CHICKEN CURRY LOUKI & CHOW CHOW SAMBAR RAGI LADDU HARYALI BABY ALOO ROAST VEG CHETTINAD	1 Cup 100 g 100 g	203 280 146 108 140 274 174 70 232 126.8 138 118 104 130
VEG PEPPER DRY BABYCORN PEPPER CURRY LOUKI LACHADAR CHANNA DAL PALAK MALKA MASOOR DAL ALOO GOBI DRY GARLIC RASAM DAL AMRITSARI KERALA CHICKEN CURRY LOUKI & CHOW CHOW SAMBAR RAGI LADDU HARYALI BABY ALOO ROAST VEG CHETTINAD MENTHE PARUPPU	1 Cup 100 g 100 g	203 280 146 108 140 274 174 70 232 126.8 138 118 104 130 152
VEG PEPPER DRY BABYCORN PEPPER CURRY LOUKI LACHADAR CHANNA DAL PALAK MALKA MASOOR DAL ALOO GOBI DRY GARLIC RASAM DAL AMRITSARI KERALA CHICKEN CURRY LOUKI & CHOW CHOW SAMBAR RAGI LADDU HARYALI BABY ALOO ROAST VEG CHETTINAD MENTHE PARUPPU YAM & RAW BANANA SAMBAR	1 Cup 100 g 100 g	203 280 146 108 140 274 174 70 232 126.8 138 118 104 130 152 110
VEG PEPPER DRY BABYCORN PEPPER CURRY LOUKI LACHADAR CHANNA DAL PALAK MALKA MASOOR DAL ALOO GOBI DRY GARLIC RASAM DAL AMRITSARI KERALA CHICKEN CURRY LOUKI & CHOW CHOW SAMBAR RAGI LADDU HARYALI BABY ALOO ROAST VEG CHETTINAD MENTHE PARUPPU YAM & RAW BANANA SAMBAR JEERA GINGER RASAM	1 Cup 100 g 100 g	203 280 146 108 140 274 174 70 232 126.8 138 118 104 130 152 110 84
VEG PEPPER DRY BABYCORN PEPPER CURRY LOUKI LACHADAR CHANNA DAL PALAK MALKA MASOOR DAL ALOO GOBI DRY GARLIC RASAM DAL AMRITSARI KERALA CHICKEN CURRY LOUKI & CHOW CHOW SAMBAR RAGI LADDU HARYALI BABY ALOO ROAST VEG CHETTINAD MENTHE PARUPPU YAM & RAW BANANA SAMBAR JEERA GINGER RASAM DAL MELONI	1 Cup 100 g 100 g	203 280 146 108 140 274 174 70 232 126.8 138 118 104 130 152 110 84 103
VEG PEPPER DRY BABYCORN PEPPER CURRY LOUKI LACHADAR CHANNA DAL PALAK MALKA MASOOR DAL ALOO GOBI DRY GARLIC RASAM DAL AMRITSARI KERALA CHICKEN CURRY LOUKI & CHOW CHOW SAMBAR RAGI LADDU HARYALI BABY ALOO ROAST VEG CHETTINAD MENTHE PARUPPU YAM & RAW BANANA SAMBAR JEERA GINGER RASAM DAL MELONI CHENNA MALPUA	1 Cup 100 g 100 g	203 280 146 108 140 274 174 70 232 126.8 138 118 104 130 152 110 84 103 371

RAGI LADDU	1 PC	118
CREAMY CELERY SOUP	1 Cup	127
CHILLY BABY CORN DRY	100 g	184
CORN PALAK	100 g	78
MANGALORE SAMBAR	100 g	131
TOMATO RASAM	100 g	70
MADRAS KOZHI KARI	100 g	137
CHEESE MASALA OMLETE	1 PC	225
SPINACH GARLIC SOUP	1 cup	60
RAW BANNANA 65	100 g	147
DRUMSTICK & SOPPU SAMBAR	100 g	142
RIDGE GOURD & RADISH SAMBAR	100 g	132
DAL RASAM	100 g	72
PEPPER LEMON RASAM	100 g	80
CHICKEN DO PYAZA	100 g	119.2
HOME STYLE CHICKEN CURRY	100 g	124
Kadai Chicken Curry	100 g	150
HOT & SOUR VEG SOUP	1 Cup	142
RAJMA MASALA	100 g	230
VEG BIRIYANI	100 g	139
DAL TAMATAR	100 g	130
MALAI SANDWICH	1 PC	118
MALABAR CHICKEN CURRY	100 g	164
LEMON MINT MOJITO	1 glass	180
SWEET CORN SPINACH SOUP	1 Cup	142
PINDI CHANNA	100 g	110
DAL MAKHANI	100 g	151
LAVANG LATIKA	1 PC	188
KORI GASSI	100 g	208
CREAM OF BROCCOLI SOUP	1 Cup	92
SOYA FRESH PEAS KADAI	100 g	183
VEG KOFTA CURRY	100 g	143.68
DAL HARIYALI	100 g	108
JANGRI	100 g	331
DAL DHANIA SHORBA	1 cup	168
URULAI PODIMAS	100 g	224
PALAK KADI	100 g	210
RAJMA PULAO	100 g	143
DRY JAMOON	1 PC	140
POORI LIVE	1 PC	101
CREAM OF BROCOLLI SOUP	1 Cup	92
PEPPER RASAM	100 g	80
METHI DAL	100 g	152
RASAMALAI	1 PC	128
CHICKEN CHETTINADU	100 g	215
DOSA -LIVE	1 PC	160 -200

DRUM STICK & RADISH SAMBAR	100 g	164
MANGALORE VEG SAMBAR	100 g	142
HARIYALI VEG PULAO	100 g	215
DAL LAHSOONI	100 g	142
CHICKEN TIKKA MASALA	100 g	190
TAWA PANEER TIKKA	100 g	101
ONION & RAJMA PARATHA	1 PC	178
MUSHROOM MAKKAI MUTTER	100 g	123
SOPPU SAMBAR	100 g	147
LEMON RASAM	100 g	70
PANJABI DAL	100 g	182
SHRIKHAND	100 g	260
CHICKEN 65 semi	100 g	126
CORRIANDER GARLIC SOUP	1 Cup	32
ALOO BAINGAN MASALA	100 g	182
VEG HYDERABADI	100 g	144
SOYA MUTTER PULAO	100 g	210
RIDGE GOURD SAMBAR	100 g	128
TAMILNAD RASAM	100 g	60
BADHUSHA	1 PC	178
MOONG DAL TADKA	100 g	96.5
ASSORTED MOCKTAIL	1 glass	105 - 130
PANEER MOMOS MANCHURIAN	100 g	235.5
CHEESE STUFFED ALOO TIKKI	1 PC	112
CHICKEN SATAY	100 g	206
MASALA SEER FISH TAWA FRY	100 g	126
MURGH MAKHANI	100 g	136
MANGO DAHI BHALLA	100 g	242
PUNJABI CHIKKAD CHOLE	100 g	151
WHITE RICE - BASMATI	100 g	121
ROASTED PAPAD	1 PC	33
ICE CREAM WITH TOPPINGS	1 Scoop	207
CHOCOLATE FOUNTAIN	100 g	480
ANGOORI JAMOON	1 PC	60
	100 g	287 5
WAFEERS		267.5
	100 g	186
ALOO PANEER PARATHA	1 PC	276
	1 PC	180
MUSHROOM MATAR MASALA	100 g	123
RAWA LADOO	1 PC	132
	1 cup	96
RAJMA PARATHA	1 PC	178
HARYALI BABY ALOO ROAST	100 g	149
CHICKEN 65	100 g	119
	<u> </u>	1

GRILLED CORN & MUSHROOM	100 g	92.5
HARIYALI TAWA PANEER TIKKA	100 g	121
PANEER MOMOS	100 g	240.4
CHEESE CORN NUGGETS	100 g	193.8
MULLI PARATHA	1 PC	78
VEG KURMA	100 g	109.47
MINT PEAS PULAO	100 g	145
LOUKI & CHOW CHOW SAMBAR	100 g	135
FRIED MODAK	1 PC	187
BROWN CHICKEN STEW	100 g	217
JELABI	100 g	300
CHOLE MASALA	100 g	140.5
DAL METHI	100 g	152
FRUIT CUSTARD	100 g	95
CHICKEN HARIYALI	100 g	173.6
BAINGAN BARTHA	100 g	112
KARELA KURKURE	100 g	202.4
MIXED VEG AND PANEER MAKHANWALA	100 g	248.1
MOTHI CHOOR LADDOO	1 Pc	120
THALASSERY KOZHI CURRY	100 g	258
ALOO METHI DRY	100 g	270
DRY FRUIT PULAO	100 G	230
KULTHI DAL	100 g	321
MURGH SAGHWALA	100 g	131.5
PASTA -LIVE	100 g	131-270
CREAM OF VEG SOUP	1 Cup	131
BABYCORN 65	100	165
ALOO GOBI MASALA	100 g	174
VEG PULAO	100 g	231
PEPPER TOMATO RASAM	100 g	82
HARIYALI ALOO ROAST	100 g	149
MASALA PAPAD LIVE	100 g	309
CREAM OF BROCOLLI CORN SOUP	1 cup	203
MUSHROOM SOUP	1 cup	96
MIX VEG PANEER PARATHAS	1 PC	187
BROCCOLI CARROT CAPSICUM DRY	100 g	60
SAGWALA VEG DRY	100 g	98
LOUKI CHATPATA	100 g	86
PANEER BUTTER MASALA	100 g	146
ANDHRA PULAO	100 g	119
KASHMIRI PULAO	100 g	160
CHANNA KHUSKA	100 g	146.5
ADRAKI DAL	100 g	101
MALPUA	1 PC	123
CHOCOLATE BARFI	1 PC	105
CHICKEN 65	100 g	119

MANGALORE CHICKEN CURRY	100 g	156
TAWA VEG PULAO	100 g	264
NOODLES -LIVE	100 g	163 -255
SPINACH AND CORN SOUP	1 Cup	142
PALAK & CORN SOUP	1 Cup	142
CORN CAPSICUM MASALA	100 g	155
DAL JAGGERY PAYASAM	100 g	180
TOMATO DHANYA KA SHORBA	1 Cup	94
MIX VEG PANEER MASALA	100 g	107
TOM YUM SOUP	1 Cup	156
ALOO BAIGAN MASALA	100 g	90
CORN SHORBA	1 cup	134
CORN MUSHROOM SOUP	1 Cup	106
CHICKEN CURRY	100 g	124

Cake		
Food	Serving	Calories
Angel Food Cake	1 piece (28 g)	72 cal
Apple Cake	1 serving (100 g)	252 cal
Apple Cobbler	1 serving (100 g)	198 cal
Apple Crisp	1 serving (100 g)	156 cal
Apple Crumble	1 serving (100 g)	156 cal
Apple Pie	1 slice (125 g)	296 cal
Apple Strudel	1 piece (71 g)	195 cal
Apple Turnover	1 turnover (82 g)	285 cal
Applesauce Cake	1 piece (62 g)	222 cal
Baked Alaska	1 piece (103 g)	254 cal
Bakewell Tart	1 piece (59 g)	254 cal
Banoffee Pie	1 serving (100 g)	395 cal
Birthday Cake	1 piece (85 g)	395 cal
Black and White Cookie	1 cookie (113 g)	431 cal
Black Forest Cake	1 piece (107 g)	282 cal
Blueberry Cobbler	1 slice (100 g)	234 cal
Blueberry Muffin	1 muffin $(57 g)$	215 cal
Blueberry Pie	1 niece (125 g)	290 cal
Bundt Cake	1 piece (123 g)	230 cal
Buttermilk Pie	1 since $(31 g)$	547 cal
Caramel Cake	1 slice (64 g)	304 cal
Carrot Cake	1 piece (133 g)	543 cal
Cheesecake	1 piece (80 g)	257 cal
Cherry Pie	1 piece (125 g)	325 cal
Chess Pie	1 piece (89 g)	366 cal
Chocolate Cake	1 piece (138 g)	537 cal
Chocolate Cream Pie	1 piece (99 g)	301 cal
Chocolate Mousse Cake	1 piece (95 g)	247 cal
Chocolate Mousse Pie	1 piece (95 g)	247 cal
Chocolate Muffin	1 muffin (100 g)	420 cal
Coconut Cake	1 piece (66 g)	235 cal
Coffee Cake	1 piece (90 g)	298 cal
Cream Puff	1 cream puff (130 g)	434 cal
Crumb Cake	1 piece (57 g)	251 cal
Cupcake	1 cupcake (43 g)	131 cal
Danish Pastry	1 pastry (71 g)	266 cal
Donut	1 donut (60 g)	242 cal
Doughnut	1 doughnut (60 g)	242 cal
Flan	1/2 cup (153 g)	222 cal
Flourless Chocolate Cake	1 piece (80 g)	407 cal
French Cruller	1 cruller (41 g)	169 cal
Fruit Cake	1 piece (43 g)	139 cal
Funnel Cake	1 cake (90 g)	276 cal

German Chocolate Cake	1 piece (110 g)	407 cal
Gingerbread	1 piece (74 g)	263 cal
Ice Cream Cake	1 piece (120 g)	240 cal
Key Lime Pie	1 piece (80 g)	287 cal
King Cake	1 piece (91 g)	343 cal
Layer Cake	1 slice (107 g)	430 cal
Lemon Cake	1 piece (66 g)	232 cal
Lemon Meringue Pie	1 piece (113 g)	303 cal
Madeira Cake	1 slice (50 g)	197 cal
Marble Cake	1 piece (109 g)	370 cal
Meringue	1 piece (127 g)	362 cal
Opera Cake	1 piece (25 g)	80 cal
Paczki	1 paczki (85 g)	286 cal
Pancake	1 pancake (38 g)	86 cal
Panettone	1 slice (50 g)	180 cal
Pavlova	1 serving (65 g)	191 cal
Peach Cobbler	1 tbsp (15 g)	10 cal
Peach Pie	1 piece (117 g)	261 cal
Pecan Pie	1 slice (133 g)	541 cal
Pineapple Upside-Down Cake	1 piece (115 g)	367 cal
Plum Cake	1 piece (150 g)	164 cal
Poppy-Seed Cake	1 piece (90 g)	355 cal
Pound Cake	1 serving (55 g)	215 cal
Profiterole	1 serving (113 g)	377 cal
Puff Pastry	1 sheet (245 g)	1367 cal
Pumpkin Bread	1 slice (60 g)	179 cal
Pumpkin Cheesecake	1 piece (100 g)	340 cal
Pumpkin Pie	1 slice (133 g)	323 cal
Raspberry Pie	1 piece (137 g)	329 cal
Red Velvet Cake	1 piece (80 g)	294 cal
Rhubarb Pie	1 piece (137 g)	336 cal
Rum Cake	1 piece (57 g)	200 cal
Sacher Torte	1 piece (125 g)	440 cal
Sponge Cake	1 piece (38 g)	110 cal
Strawberry Cheesecake	1 slice (61 g)	199 cal
Strawberry Pie	1 piece (167 g)	384 cal
Strawberry Rhubarb Pie	1 piece (150 g)	422 cal
Sweet Potato Pie	1 piece (131 g)	341 cal
Swiss Roll	1 cake (31 g)	136 cal
Tarte Tatin	1 piece (100 g)	210 cal
Tiramisu	1 serving (174 g)	492 cal
Tiramisu Cake	1 piece (108 g)	314 cal
Treacle Tart	1 serving (100 g)	369 cal
Tres Leches Cake	1 piece (120 g)	295 cal
Trifle	1 serving (100 g)	180 cal
Victoria Sponge Cake	1 piece (28 g)	72 cal

Waffles	1 waffle (33 g)	103 cal								
Wedding Cake	1 piece (109 g)	415 cal								
DATE DISH TYPE	10-Jan-22 Monday	11-Jan-22 Tuesday	BRE 12-Jan-22 Wednesday	AKFAST (7:30 to 9:30) 13-Jan-22 Thursday	14-Jan-22 FRIDAY	15-Jan-22 Saturday	16-Jan-22 Sunday			
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Main- I	ALOO PARATHA	POORI	PLAIN PARATHA	VEGETABLE PEANUT POHA	DAL PARATHA	IDLI	CHANA			
	CURD	ALOO BHAJI	ALOO METHI BATUWA KI SUBJI	CHUTNEY	CURD	SEVAINA UPMA	BHATURA			
Moin II	CORN FLAKS	SHEERA	CORN FLAKS	MASALA DALIYA	CORN FLAKS	SAMBAR				
Main- II	CHUTNEY					TOMATO CUTNEY	CHUTNEY			
BREAD	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT			
HOT Beverage	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK			
	COLESLAW	TOMATO CUCMBER	ТОМАТО РОТАТО	COLESLAW	TOMATO CUCUMBER	COLESLAW	ТОМАТО РОТАТО			
EGG	BOILED EGG		BOILED EGG		BOILED EGG		BOILED EGG			
Fruit	BANANA		BANANA		BANANA		BANANA			
Butter	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER			
Jam	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM			
Pickle	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE			
LUNCH (12:00 to 14:30)										
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday			
Salad	GREEN SALAD	SPROUT SALAD	GARDEN FRESH SALAD	TOSSED SALAD	TOSED SALAD	GARDEN FRESH SALAD	GREEN SALAD			
Rice Dish	JEERA RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE/TOTAMO RICE	JEERA RICE	STEAMED RICE	STEAMED RICE			
DAL	TOOR DAL TADKA	KADHI PAKODA	RAJMA MASALA	SAMBHAR/RASAM	LASUNI HING DAL	PINDI CHOLLE	CHAWALI MASALA			
VEG	TAWA VEG	BHINDI DO PYAZA	KADAI SOYABEEN	ALOO MASALA	GAJAR METHI	KAHTTA METHA KADDU	ALOO AMRATSARI VADI			
Curd/SOUP	BUTTER MILK	τομάτο soup	CURD	MASALA CHAACH	HOT & SOUR SOUP	BUTTER MILK	SWEET LASSI			
Bread- I	PHULKA	PHULKA	PHULKA	UTTAPAM/PHULKA	PHULKA	PHULKA/POORI	PHULKA			
SPECIAL	GARLIC CHUTNEY	GREEN CHUTNEY	GREEN CHUTNEY	FRIED CHILLI	TOMATO CHUTNEY	GREEN CHUTNEY	GARLIC CHUTNEY			
PAPAD	FRYUMS	FRYUMS	FRYUMS	COCONUT CHUTNEY	FRYUMS	FRYUMS	FRYUMS			
			H	H.T(17:00T018:00)						
MAIN	SAMOSA	KHAMAN DOKLA	STUFFED KULCHA	ALOO TIKKI	VEGETABLE UPMA	BHEL PURI	KACHORI			
TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE			
			יות	NER(19:30T021:30)						
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday			
Salad	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD			
Rice Dish	PLAIN RICE	JEERA PULAO	STEAMED RICE	STEAMED RICE	STEAMED RICE	CTEAMED DICE	VEGETABLE BIRYANI			
DAL	WHOLE MASOOR DAL	DAL MAKHANI	MASOOR DAL TDKA	MIX DAL TADKA	MOONG DAL TADKA	DAL MAKHANI	CHANA MOONG DAL			
		SARSON KA SHAAG		ALOO GOBHI		SOYA CHANP MASALA				
PANEER	MUTTER PANEER		DANEED MACATA		PALAK PANEER		PALAK CHEESE KOFTA			
	EGG CURRY		KADAI CHICKEN		CHICKEN ROGAN JOSH		CHICKEN BIRYANI			
Dessert		GAJAR HALWA		GULAB JAMUN		CHOCOLATE MUD PASTRY				
Bread- I	PHULKA	PHULKA	PHULKA	PHULKA	PHULKA	PHULKA	PHULKA			

			BRE	AKFAST (7:30 to 9:30)		22.2			
DATE	17-Jan-21	18-Jan-21	19-Jan-21	20-Jan-21	21-Jan-21	22-Jan-21	23-Jan-21		
DISH I YPE	HING ALOO PYAZ	ruesday	wednesday	Thursuay	Friday	Saturday	Sunday		
	PARATHA	VEG UTTAPAM	PAN CAKE	MEDU VADA	MOONG DAL CHILLA	MIX VEG PARATHA	CHHOLE		
	CURD	VEGETABLE STEW	FRUIT JAM	SAMBAR	GREEN CHUTNEY	CURD	BHATURA		
Main- II	CORN FLAKS	DUM SEVAI UPMA	VEGETABLE POHA	MASALA DALIYA	VEGETABLA RAWA UPMA	CORN FLAKS			
		TOMATO CHUTNEY			COCONUT CHUTNEY		CHUTNEY		
BREAD	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE	PLAIN BREAD/	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE	PLAIN BREAD/	PLAIN BREAD/		
HOT Beverage	GINGER TEA, COFFEE,	GINGER TEA, COFFEE,	GINGER TEA,	GINGER TEA COFFEE MILK	GINGER TEA COEFEE MILK	GINGER TEA,	GINGER TEA,		
MAKE YOUR OWN	MILK	MILK	COFFEE. MILK	UNDER TEA, COTTEE, MIER	UNUER TEA, COTTEE, MIER	COFFEE. MILK	COFFEE. MILK		
S/W	COLESLAW	TOMATO CUCMBER	TOMATO POTATO	COLESLAW	TOMATO CUCUMBER	COLESLAW	ΤΟΜΑΤΟ ΡΟΤΑΤΟ		
EGG	BOILED EGG		BOILED EGG		BOILED EGG		BOILED EGG		
Fruit	BANANA		BANANA		BANANA		BANANA		
Butter	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER		
Jam	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM		
Pickle	MIXED VEG PICKLE			MIXED VEG PICKLE		MIXED VEG PICKLE	MIXED VEG PICKLE		
LUNCH (12:00 to 14:30)									
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday		
Salad	GREEN SALAD	TOSSED SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	TOSSED SALAD	PASTA SALAD		
Rice Dish	JEERA RICE	STEAMED RICE	STEAMED RICE	VEGETABLE MASALA PULAO	STEAMED RICE	MUTTER PULAO	STEAMED RICE		
DAL	BLACK DAL TADKA	KADI PAKODA	RAJMA MASALA	ARHAR DAL TADKA	BLACK CHANA MASALA	PUNJABI DAL	MOONG DAL TADKA		
VEGETABLE	KADAI VEG	SOYABEAN MASALA	ALOO PYAZ	CORN PALAK	ALOO GOBHI	CARROT CORN BEANS KI SUBU	VEGETABLE		
CURD/SOUP	BUTTER MILK	MINSTRONE SOUP	CURD	BOONDI RAITA	TOMATO SHORBA	BUTTER MILK	SWEET LASSI		
Bread- I	PHULKA	PHULKA	PHULKA	PHULKA	PHULKA/POORI	PHULKA	PHULKA		
CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI		
SPECIAL	GARLIC CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY	GARLIC CHUTNEY		
PAPAD	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS		
			I	J T(17.00T010.00)					
MAIN	MAGGI	VEG PIZZA	CHINESE SAMOSA	VEGETABLE POHA	VEGETABLE KATHI ROLL	CHOCOLATE	BAKED PASTA		
TEA/COFFEE	GINGER TEA/COFFEE	GINGER TEA/COFFEE	GINGER	GINGER TEA/COFFEE	GINGER TEA/COFFEE	GINGER	GINGER		
SOUP			TEA/COFFEE				TEA/COFFEE		
					J				
				NNER(19:30T021:30)					
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday		
Salad	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD		
Rice Dish	PLAIN RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE	BIRYANI	STEAMED RICE	VEG FRIED RICE		
DAL	DAL TADKA	DAL MAKHANI	ТАДКА	MIX DAL TADKA	VEG RAITA	DAL MAKHANI	MIX DAL TADAK		
VEG		GOBHI MUTTER CAPSICUM MASALA		GATTA CURRY		KADAI VEGETABLE	CHILLI PANEER		
PANEER	MUTTER PANEER		CHUTNEY WALA PANEER		MALAI KOFTA CURRY		CHILLI CHICKEN		
NONVEG	EGG CURRY		BUTTER CHICKEN		CHICKEN DUM BIRYANI				
Dessert		MOONG DAL HALWA		CHOCOLATE MUD PASTRY		FRUIT CUSTARD			
Bread- I	PHULKA	PHULKA	PHULKA	PHULKA	PHULKA	PHULKA	PHULKA		

			BREAKFAS	Γ (7:30 to 9:30)						
DATE DISH TVPF	31-Jan-22 Monday	1-Feb-22 Tuesday	2-Feb-22 Wednesday	3-Feb-22 Thursday	4-Feb-22 Friday	5-Feb-22 Saturday	6-Feb-22 Sunday			
Main- I	ALOO PARATHA	IDLI	METHI THEPLA	POORI	ONION VADA	CHHOLE	DAL PARATHA			
	CURD/GARLIC CHUTNEY	SAMBAR	ALOO MUTTER BHAJI	BHAJI	SAMBAR	BHATURA	CURD/GARLIC CHUTNEY			
Main- II	CORN FLAKS	COCONUT CHUTNEY	РОНА	SHEERA	COCONUT CHUTNEY	CORN FLAKS				
		РОНА			SEVAIN UPMA		CHUTNEY			
BREAD	PLAIN BREAD/ WHOLE WHEAT									
HOT Beverage	GINGER TEA, COFFEE, MILK	GINGER TEA, COFFEE, MILK								
MAKE YOUR OWN S/W	COLESLAW	TOMATO CUCMBER	ΤΟΜΑΤΟ ΡΟΤΑΤΟ	COLESLAW	TOMATO CUCUMBER	COLESLAW	ΤΟΜΑΤΟ ΡΟΤΑΤΟ			
EGG	BOILED EGG		BOILED EGG		BOILED EGG		BOILED EGG			
Fruit	BANANA		BANANA		BANANA		BANANA			
Butter	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER			
Jam	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM			
Pickle	MIXED VEG PICKLE			MIXED VEG PICKLE		MIXED VEG PICKLE	MIXED VEG PICKLE			
			LUNCH (1)	2:00 to 14:30)						
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday			
Salad	GREEN SALAD	GREEN SALAD	TOSSED SALAD	TOSTED SALAD	GREEN SALAD	TOSSED SALAD	GREEN SALAD			
Rice Dish	JEERA RICE	STEAMED RICE	STEAMED RICE	VEG FRIED RICE	STEAMED RICE	VEG TEHRI PULAO	STEAMED RICE			
DAL	YELLOW DAL TADKA	RAJMA MASALA	KADI PAKODA	VEG MANCHURIAN	BLACK CHANA	PUNJABI DAL	ALOO CHANA MASALA			
VEGETABLE	BHINDI DO PYAZA	KADAI SOYABEAN	GHIYA CHANA	ALOO GOBHI	ALOO MUTTER	SARSON KA SAAG	VEG HAKKA NODDELS			
CURD/SOUP	BUTTER MILK	CURD	TOMATO SOUP	SWEET CORN SOUP	BUTTER MILK	VEG RAITA	HOT & SOUR SOUP			
Bread- I	PHULKA	PHULKA	PHULKA	PHULKA	POORI	MISSI ROTI	PHULKA/KULCHA			
CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI			
SPECIAL	GREEN CHUTNEY	GREEN CHUTNEY	TOMATO CHUTNEY	GARLIC CHUTNEY	TOMATO CHUTNEY	GREEN CHUTNEY	GARLIC CHUTNEY			
PAPAD	FRYUMS									
			H.T(17:	00T018:00)						
MAIN	MAGGI	VEG PUFF	MOOG DAL PAKODI	SAMOSA	HONNY CHILLI POTATO	PIZZA	SET DOSA WITH COCONUT CHUTNEY			
TEA/COFFEE	GINGER TEA/COFFEE	GINGER TEA/COFFEE	GINGER TEA/COFFEE	GINGER TEA/COFFEE	GINGER TEA/COFFEE	GINGER TEA/COFFEE	GINGER TEA/COFFEE			
SOUP										
			DINNER(1	9:30T021:30)						
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday			
Salad	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD			
Rice Dish	PLAIN RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE	VEG BIRYANI			
DAL	BLACK MASOOR TADKA	DAL MAKHANI	MOONG DAL TADKA	HOME STYLE RAJMA	TOOR DAL TADKA	DAL MAKHANI	DAL DHABA			
VEG		ALOO GOBHI MUTTER		TAWA VEG		DUM ALOO				
PANEER	MUTTER PANEER		PALAK PANEER		PANEER TIKKA MASALA		MALAI KOFTA CURRY			
NONVEG	KEEMA EGG CURRY		BHUNNA CHICKEN MASALA		CHICKEN CHETTINAD		HYDERABADI CHICKEN BIRYANI			
Dessert		RICE KHEER		GULAB JAMUN		FRUIT CUSTURD	BHURANI RAITA			
Bread- I	PHULKA	PHULKA	PHULKA		PHULKA	BATI/ PHULKA	PHULKA			

			BREAKFAST ('	7:30 to 9:30)			
DATE	14-Feb-22 Monday	15-Feb-22	16-Feb-22	17-Feb-22	18-Feb-22	19-Feb-22	20-Feb-22
DISHTIPE			BOODI	nursuay	IDU		Sunday
Main- I	ALUU PARATHA	MEDU UNIIUN VADA	POORI	РОНА		ALOO GOBHI PARATHA	CHHOLE
	CURD	SAMBAR	BHAJI	METHI THEPLA	SAMBAR	CURD	BHATURA
Main- II	CORN FLAKS	COCONUT CHUTNEY	SHEERA	ALOO MUTTER BHAJI	COCONUT CHUTNEY	CORN FLAKS	
		SEVAIN UPMA			RAWA UPMA		CHUTNEY
BREAD	WHEAT	WHEAT	WHEAT	WHEAT	WHEAT	WHEAT	WHEAT
HOT Beverage	GINGER TEA, COFFEE, MILK	GINGER TEA, COFFEE, MILK	GINGER TEA, COFFEE, MILK	GINGER TEA, COFFEE, MILK	GINGER TEA, COFFEE, MILK	GINGER TEA, COFFEE, MILK	GINGER TEA, COFFEE, MILK
MAKE YOUR OWN S/W	COLESLAW	TOMATO CUCMBER	ТОМАТО РОТАТО	COLESLAW	TOMATO CUCUMBER	COLESLAW	ТОМАТО РОТАТО
EGG	BOILED EGG	COCONUT CHUTNEY	BOILED EGG		BOILED EGG		BOILED EGG
Fruit	BANANA		BANANA		BANANA		BANANA
Butter	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER
Jam	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM
Pickle	MIXED VEG PICKLE			MIXED VEG PICKLE		MIXED VEG PICKLE	MIXED VEG PICKLE
			LUNCH (12:0	0 to 14:30)			
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Salad	GREEN SALAD	TOSSED SALAD	GREEN SALAD	LIVE FREASH GRADEN SALAD	GREEN SALAD	TOSSED SALAD	SPROUT SALAD
Rice Dish	IEERA RICE	STEAMED RICE	STEAMED RICE	TAWA PULAO	STEAMED RICE	MUTTE PULAO	FRIED RICE
DAL	YELLOW DAL TADKA	KADI PAKODA	RAJMA MASALA	MIRCH KA SALAN	BLACK CHANA	PUNJABI DAL	VEG MANCHURIAN
VEGETABLE	BHINDI DO PYAZA	MIRCH KI TIPORE	BANGAN BHARTA	ALOO SHEM FALI KI SUBII	ALOO TAMATER	ALOO AMRATSARI VADI	KHATA MITHA KARELA
CURD/SOUP	BUTTER MILK	CHAANS	CURD	LEMON WATER(SWEET & SALTY)	BUTTER MILK	VEGETABLE RAITA	SWEET LASSI
Bread- I	РНШКА	BAATI	PHILKA	PHILKA	POORI	PHIII.KA	PHIII.KA
CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI
SPECIAL	GREEN CHUTNEY	LASUN KI CHUNTEY	GREEN CHUTNEY	GARLIC CHUTNEY	TOMATO CHUTNEY	GREEN CHUTNEY	GARLIC CHUTNEY
PAPAD	FRVIIMS	FRVIIMS	FRVIIMS	FRVIIMS	FRVIIMS	FRVIIMS	FRVIIMS
	TRIOMS	ППОМЭ	н т(17.00		TRIOMS	ТКТОМЗ	T KT OMS
							HOT CHESSE COLESLAW
MAIN	CHESSE MAGGI	CHOCOLATE DOUGNUT	PANI PURI	LIVE CHANA BHATURA	BREAD PAKODA	CRUISSANIS	SANDWICH
TEA/COFFEE	GINGER TEA/COFFEE	GINGER TEA/COFFEE	GINGER TEA/COFFEE	GINGER TEA/COFFEE	GINGER TEA/COFFEE	GINGER TEA/COFFEE	GINGER TEA/COFFEE
SOUP							
			DINNER(19:3	80T021:30)			
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Salad	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD
Rice Dish	PLAIN RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE	VEG BIRYANI
DAL	BLACK MASOOR	DAL MAKHANI	MOONG DAL TADKA	MIX DAL TADKA	ΤΟΟΡ ΠΑΙ ΤΑΠΚΑ	RAJMA MASALA	DAI DHARA
VEG		KADAI VEG		TANDOORI SOYA CHANP MASALA		ALOO GOBHI MUTTER	
PANEER	MUTTER PANEER		MUSHROOM MUTTER		PANEER TIKKA MASALA		
NONVEG	ANDHRA EGG CURRY		CHICKEN HOME STYLE		CHICKEN CHETTINAD		HYDERABADI CHICKEN RIRVANI
Dessert		DHUDHI KA HALWA		GULAB IAMIIN		RICE FHIRNI	BHURANI RAITA
Bread- I							
bicuu i	PHULKA	PHULKA	I PHULKA	I PHULKA	I PHULKA	PHULKA	PHULKA

DATE	21 Eab 22	22 Eab 22	BREAK	FAST (7:30 to 9:30)	25 Eab 22	26 Eab 22	27 Eab 22		
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	FRIDAY	Saturday	Sunday		
Main, I	ALOO PARATHA	PALAK POORI	MEDU VADA	PLAIN PARATHA	DAL PARATHA	IDLI	CHANA		
Main- I	CURD	ALOO BHAJI	SAMBHAR	ALOO BLACK CHANA	CURD	SEVAINA UPMA	BHATURA		
Main- II	CORN FLAKS	SHEERA	MASALA OATS	VEG UPMA	CORN FLAKS	SAMBAR	CORN FLAKS		
	CHUTNEY		CHUTNEY	CHUTNEY		TOMATO CUTNEY	CHUTNEY		
BREAD	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT		
HOT Beverage	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK		
	COLESLAW	TOMATO CUCMBER	ТОМАТО РОТАТО	COLESLAW	TOMATO CUCUMBER	COLESLAW	ТОМАТО РОТАТО		
EGG	BOILED EGG		BOILED EGG		BOILED EGG		BOILED EGG		
Fruit	BANANA		BANANA		BANANA		BANANA		
Butter	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER		
Jam	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM		
Pickle	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE		
LUNCH (12:00 to 14:30)									
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday		
Salad	GREEN SALAD	GREEN SALAD	GARDEN FRESH SALAD	TOSSED SALAD	GARDEN FRESH SALAD	TOSED SALAD	GREEN SALAD		
Rice Dish	STEAMED RICE	JEERA RICE	STEAMED RICE	STEAMED RICE /VEG BIRYANI	STEAMED RICE	JEERA RICE	STEAMED RICE		
DAL	KADHI PAKODA	TOOR DAL TADKA	RAJMA MASALA	VEG SAMBHAR	PINDI CHOLLE	LASUNI HING DAL TADKA	CHAWALI MASALA		
VEG	ALOO BANGAN	DAHI BHINDI MASALA	KEEMA SOYABEEN MUTTER	VEG KORMA	KAHTTA METHA KADDU	ALOO GOBHI MUTTER	GATTA CURRY		
Curd/SOUP	JAL JEERA	BUTTER MILK	CURD	VEG RAITA	BUTTER MILK	LEMON WATER	SWEET LASSI		
Bread- I	PHULKA	PHULKA	PHULKA	PHULKA/PESARATTU	PHULKA/POORI	PHULKA	PHULKA		
CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI		
SPECIAL	GARLIC CHUTNEY	GREEN CHUTNEY	GREEN CHUTNEY	GARLIC CHUTNEY	GREEN CHUTNEY	TOMATO CHUTNEY	GARLIC CHUTNEY		
PAPAD	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS		
			н.т	(17:00T018:00)					
MAIN	FRIED IDLI	VEG PUFF	KHAMAN DOKLA	INDORI STYLE POHA	MIX SPROUT SALAD	PAV BHAJI	ALOO PYAZ KACHORI WITH KADHI		
TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE		
		·	DINN	ER(19:30T021:30)					
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday		
Salad	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD		
Rice Dish	PLAIN RICE	JEERA PULAO	STEAMED RICE	STEAMED RICE	STEAMED RICE/FRIED RICE	STEAMED RICE	STEAMED RICE		
DAL	WHOLE MASOOR DAL TADKA	DAL MAKHANI	MASOOR DAL TDKA	MIX DAL TADKA	MOONG DAL TADKA	DAL MAKHANI	CHANA MOONG DAL TADKA		
VEG		TAWA VEG		PALAK KOFTA CURRY		BHINDI DO PYAZA	VEGETABLE BIRYANI		
PANEER	MUTTER PANEER		MUSHROOM HARA PYAZ		CHILLI CHICKEN (BONE		PALAK PANEER		
NON VEG	EGG KEEMA CURRY		CHICKEN KALI MIRCH		CHILLI PANEER		CHICKEN BIRYANI		
Dessert		FRUIT CUSTARD		CHOCOLATE MUD PASTRY		KALA JAMUN	VEG RAITA		
Bread- I	PHULKA	PHULKA	PHULKA	PHULKA	PHULKA	PHULKA	PHULKA		

DATE	00 F-L 00	1 Mar 22	BREAKFA	AST (7:30 to 9:30)	4 Mar 22	F Mar 22	(Marc 22			
DATE	28-FeD-22	1-Mar-22	2-mar-22	3-Mar-22	4-Mar-22	5-Mar-22	6-Mar-22			
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday			
Main- I	ALOO PARATHA	IDLI	METHI THEPLA	POORI	ONION VADA	CHHOLE	DAL PARATHA			
	CURD/GARLIC CHUTNEY	SAMBAR	ALOO MUTTER BHAJI	BHAJI	SAMBAR	BHATURA	CURD/GARLIC CHUTNEY			
Main- II	CORN FLAKS	COCONUT CHUTNEY	РОНА	MASALA DALIYA	COCONUT CHUTNEY	CORN FLAKS				
		РОНА			SEVAIN UPMA		CHUTNEY			
BREAD	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT			
HOT Beverage	GINGER TEA, COFFEE, MILK	GINGER TEA, COFFEE, MILK	GINGER TEA, COFFEE, MILK	GINGER TEA, COFFEE, MILK	GINGER TEA, COFFEE, MILK	GINGER TEA, COFFEE, MILK	GINGER TEA, COFFEE, MILK			
MAKE YOUR OWN S/W	COLESLAW	TOMATO CUCMBER	ТОМАТО РОТАТО	COLESLAW	TOMATO CUCUMBER	COLESLAW	ТОМАТО РОТАТО			
EGG	BOILED EGG		BOILED EGG		BOILED EGG		BOILED EGG			
Fruit	BANANA		BANANA		BANANA		BANANA			
Butter	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER			
Jam	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM			
Pickle	MIXED VEG PICKLE			MIXED VEG PICKLE		MIXED VEG PICKLE	MIXED VEG PICKLE			
			LUNCH	(12:00 to 14:30)			_			
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday			
Salad	GREEN SALAD	GREEN SALAD	TOSSED SALAD	TOSSED SALAD	GREEN SALAD	TOSSED SALAD	GREEN SALAD			
Rice Dish	JEERA RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE/VEG FRIED RICE	STEAMED RICE	VEG TEHRI PULAO	STEAMED RICE			
DAL	YELLOW DAL TADKA	RAJMA MASALA	KADI PAKODA	SAMBHAR/VEGETABLE IN HOT GARLIC SAUCE	BLACK CHANA	PUNJABI DAL	ALOO CHANA MASALA			
VEGETABLE	ALOO BANGAN MASALA	KADAI SOYABEAN	ALOO BLACK CHANA	ALOO MASALA	GOBHI MUTTER	CORN PALAK	VEG HAKKA NODDELS			
CURD/SOUP	BUTTER MILK	CURD	JALJEERA	MASALA CHAACH	BUTTER MILK	VEG RAITA	VEG MANCHURIAN			
Bread- I	PHULKA	PHULKA	PHULKA	UTTAPAM/PHULKA	POORI	MISSI ROTI	PHULKA/KULCHA			
CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI			
SPECIAL	GREEN CHUTNEY	GREEN CHUTNEY	TOMATO CHUTNEY	COCONUT CHUTNEY	TOMATO CHUTNEY	GREEN CHUTNEY	GARLIC CHUTNEY			
PAPAD	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS			
JAIN FOOD	GOBHI MUTTER	KADAI SOYABEAN	BLACK CHANA	CABBAGE PORIYAL	GOBHI MUTTER	CORN PALAK	SAME			

MAIN	MAGGI	VEG PUFF	SAMOSA	INDORI STYLE POHA	PAANI PURI	TEA CAKE	SET DOSA WITH COCONUT CHUTNEY				
TEA/COFFEE	GINGER TEA/COFFEE	GINGER TEA/COFFEE	GINGER TEA/COFFEE	GINGER TEA/COFFEE	GINGER TEA/COFFEE	GINGER TEA/COFFEE	GINGER TEA/COFFEE				
	DINNER(19:30T021:30)										
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday				
Salad	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD				
Rice Dish	PLAIN RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE	VEG BIRYANI				
DAL	BLACK MASOOR TADKA	DAL MAKHANI	MOONG DAL TADKA	HOME STYLE RAJMA	TOOR DAL TADKA	RAJISTANI DAL	DAL DHABA				
VEG		ALOO GOBHI MUTTER		TAWA VEG		RAJISTANI ALOO PYAZ					
PANEER	MUTTER PANEER		KADAI MUSHROOM		PANEER TIKKA MASALA	MIRCH KE TIPORE	MALAI KOFTA CURRY				
NONVEG	KEEMA EGG CURRY		BUTTER CHIKEN		CHICKEN CHETTINAD		HYDERABADI CHICKEN BIRYANI				
Dessert		RICE KHEER		GULAB JAMUN		FRUIT CUSTURD	BHURANI RAITA				
Bread- I	PHULKA	PHULKA	PHULKA		PHULKA	PHULKA/BATI	PHULKA				
JAIN FOOD	MUTTER PANEER	GOBHI MUTTER	PALAK PANEER	TAWA VEG	PANEER TIKKA MASALA	SEV TOMATO	MALAI KOFTA CURRY				

			DDEAVEACT	$(7,20 \pm 0,20)$			
DATE	7-Mar-22	8-Mar-22	9-Mar-22	10-Mar-22	11-Mar-22	12-Mar-22	13-Mar-22
DISHTYPE							CHANA
Main- I	CURD		CAMDUAD		CURD		
	CODNELAKS	CHEED A			CODNELAKS		CODNELAKS
Main- II	CHUTNEY	SHEERA	CHUTNEY		CORNTLARS	TOMATO CUTNEY	CHUTNEY
BREAD	PLAIN BREAD/	PLAIN BREAD/	PLAIN BREAD/ WHOLE	PLAIN BREAD/ WHOLE	PLAIN BREAD/	PLAIN BREAD/	PLAIN BREAD/
HOT Beverage	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK
	COLESLAW	TOMATO CUCMBER	ТОМАТО РОТАТО	COLESLAW	TOMATO CUCUMBER	COLESLAW	ТОМАТО РОТАТО
EGG	BOILEDECC		POILED ECC		POILED ECC		
Fruit	DOILED EGG		BANANA		BANANA		PANANA
Butter	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER
Jam	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM
Pickle	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE
LUNCH (12:00 to 14:30)							
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Salad	GREEN SALAD	GREEN SALAD	GARDEN FRESH SALAD	TOSSED SALAD	GARDEN FRESH SALAD	TOSED SALAD	GREEN SALAD
Rice Dish	STEAMED RICE	JEERA RICE	STEAMED RICE	STEAMED RICE /VEG BIRYANI	STEAMED RICE	JEERA RICE	STEAMED RICE
DAL	TOOR DAL TADKA	KADHI PAKODA	RAJMA MASALA	VEG SAMBHAR	PINDI CHOLLE	LASUNI HING DAL TADKA	CHAWALI MASALA
VEG	BHINDI DO PYAZA	ALOO BANGAN	KEEMA SOYABEEN MUTTER	ALOO MASALA	KAHTTA METHA KADDU	ALOO GOBHI MUTTER	TAWA VEG
Curd/SOUP	BUTTER MILK	JAL JEERA	CURD	VEG RAITA	BUTTER MILK	LEMON MINT WATER	SWEET LASSI
Bread- I	PHULKA	PHULKA	PHULKA	PHULKA/PESARATTU	PHULKA/POORI	PHULKA	PHULKA
CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI
SPECIAL	GARLIC CHUTNEY	GREEN CHUTNEY	GREEN CHUTNEY	GARLIC CHUTNEY	GREEN CHUTNEY	TOMATO CHUTNEY	GARLIC CHUTNEY
PAPAD	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS
JAIN FOOD	BHINDI MASALA	CAPSICUM CORN	KEEMA SOYABEEN MUTTER	BEANS PORIYAL	KAHTTA METHA KADDU	GOBHI MUTTER	TAWA VEG
			H.T(17:00)TO18:00)	1		
MAIN	FRIED IDLI	VEG PUFF	KHAMAN DOKLA	BHEL PURI	KACHORI	CHOCOLATE DOUGNUT	MIX SAUCE PASTA
TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE
			DINNER(19:	30T021:30)			
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Salad	GREEN SALAD	GREEN SALAD	GREEN SALAD	CORN PEANUT SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD
Rice Dish	PLAIN RICE	JEERA PULAO	STEAMED RICE	STEAMED RICE	STEAMED RICE/FRIED RICE	STEAMED RICE	STEAMED RICE
DAL	WHOLE MASOOR DAL TADKA	DAL MAKHANI	MASOOR DAL TDKA	PUNJABI DAL TADKA	MOONG DAL TADKA	DAL MAKHANI	CHANA MOONG DAL TADKA
VEG		TAWA VEG		DUM ALOO		SOYA CHANP MASALA	VEGETABLE BIRYANI
PANEER	MUTTER PANEER		MUSHROOM HARA PYAZ		CHILLI CHICKEN (BONE LESS)		PALAK KOFTA CURRY
NON VEG	EGG CURRY		RARA CHICKEN		CHILLI PANEER		CHICKEN BIRYANI
Dessert		FRUIT CUSTARD		CHILLED KHEER		KALA JAMUN	VEG RAITA
Bread- I	PHULKA	PHULKA	PHULKA	PHULKA	PHULKA	PHULKA	PHULKA
JAIN FOOD	MUTTER PANEER	TAWA VEG	STUFFED CAPSICUM MASALA	KOFTA CURRY	CHILLI PANEER	SOYA CHANP MASALA	PALAK KOFTA CURRY

DATE	14 Mar 22	15 Mar 22	BREAKFAST (7:30	to 9:30)	19 Mar 22	10 Mar 22	20 Mar 22		
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	FRIDAY	Saturday	Sunday		
Main- I	ALOO PARATHA	POORI	MEDU VADA	VEG POHA	IDLI	DAL PARATHA	CHANA		
	CURD	ALOO BHAJI	SAMBHAR	MASALA DALIYA	SEVAINA UPMA	CURD	BHATURA		
Main- II	CORN FLAKS	SHEERA	MASALA OATS		SAMBAR	CORN FLAKS	CORN FLAKS		
	CHUTNEY		CHUTNEY	GREEN CHUTNEY	TOMATO CUTNEY	GARLIC CHUTNEY			
BREAD	PLAIN BREAD/ WHOLE	PLAIN BREAD/ WHOLE	PLAIN BREAD/ WHOLE	PLAIN BREAD/ WHOLE	PLAIN BREAD/ WHOLE	PLAIN BREAD/	PLAIN BREAD/		
HOT Beverage	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK		
	COLESLAW	TOMATO CUCMBER	ΤΟΜΑΤΟ ΡΟΤΑΤΟ	COLESLAW	TOMATO CUCUMBER	COLESLAW	ТОМАТО РОТАТО		
EGG	BOILED EGG		BOILED EGG		BOILED EGG		BOILED EGG		
Fruit	BANANA		BANANA		BANANA		BANANA		
Butter	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER		
Jam	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM		
Pickle	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE		
	LUNCH (12:00 to 14:30)								
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday		
Salad	GREEN SALAD	SPROUT SALAD	GARDEN FRESH SALAD	GREEN SALAD	TOSED SALAD	GREEN SALAD	GREEN SALAD		
Rice Dish	JEERA RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE /VEG BIRYANI	STEAMED RICE	JEERA RICE	STEAMED RICE		
DAL	TOOR DAL TADKA	KADHI PAKODA	RAJMA MASALA	VEG SAMBHAR	ALOO BLACK CHANA	LASUNI HING DAL TADKA	CHAWALI MASALA		
VEG	BHINDI DO PYAZA	ALOO BLACK CHANA	SOYA MUTTER	VEG KORMA	DAHI VADA,PANI PURI	ALOO GOBHI MUTTER	ALOO AMRATSARI VADI		
Curd/SOUP	BUTTER MILK	ROOH AFZA	CURD	VEG RAITA	THANDAI	LEMON MINT WATER	SWEET LASSI		
Bread- I	PHULKA	PHULKA	PHULKA	PHULKA/PESARATTU	POORI	PHULKA	PHULKA		
CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	NAMAK PARE, SAKKAR PARE	FRIED CHILLI	FRIED CHILLI		
SPECIAL	GARLIC CHUTNEY	GREEN CHUTNEY	GREEN CHUTNEY	COCONUT CHUTNEY	GARLIC CHUTNEY	TOMATO CHUTNEY	GARLIC CHUTNEY		
PAPAD	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS		
JAIN FOOD	BHINDI MASALA	BLACK CHANA	SOYABEEN MUTTER	CABBAGE PORIYAL	BLACK CHANA	GOBHI MUTTER	TAWA VEG		
			H.T(17:00T01	8:00)					
MAIN	VEG MAGGI	CHOCOLATE DOUGNUT	BANANA CAKE	BHEL PURI	VEG PUFF	ALOO PYAZ KACHORI	BREAD PAKODA		
TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE		
			DINNER(19:30TC	021:30)					
DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday		
Salad	GREEN SALAD	GREEN SALAD	GREEN SALAD	CORN PEANUT CHAT	GREEN SALAD	GREEN SALAD	GREEN SALAD		
Rice Dish	PLAIN RICE	JEERA PULAO	STEAMED RICE	STEAMED RICE	STEAMED RICE/FRIED RICE	STEAMED RICE	STEAMED RICE		
DAL	WHOLE MASOOR DAL TADKA	YELLOW DAL TADKA	MASOOR DAL TDKA	DAL MAKHANI	MOONG DAL TADKA	PUNJABI DAL TADKA	CHANA MOONG DAL TADKA		
VEG		GHEEYA KOFTA CURRY	METHI MUTTER MALAI	ALOO TIKKI		SOYA CHANP MASALA	VEGETABLE BIRYANI		
PANEER	MUTTER PANEER			PANEER LAZEEZ	CHILLI CHICKEN (BONE LESS)		KOFTA CURRY		
NON VEG	EGG CURRY			BUTTER CHICKEN	CHILLI PANEER		CHICKEN BIRYANI		
Dessert		SEVAIN KHEER	DRY FRUIT SHEERA	ROOH AFZA		BALUSHAI	VEG RAITA		
Bread- I	PHULKA	PHULKA	PHULKA	PHULKA	PHULKA	PHULKA	PHULKA		
JAIN FOOD	MUTTER PANEER	TAWA VEG	METHI MUTTER MALAI	PANEER LAZEEZ	CHILLI PANEER	SOYA CHANP MASALA	KOFTA CURRY		

				BREAKFAST (7:3)	0 to 9:30)				
	DATE	21-Mar-22	22-Mar-22	23-Mar-22	24-Mar-22	25-Mar-22	26-Mar-22	27-Mar-22	
	DISHTYPE			MEDIL VA DA			Saturday	Sunday	
	Main- I		ALOO BHAIL	SAMBHAR	ALOO BLACK CHANA	DAL PAKA IHA CURD	IDLI SEVAINA LIPMA	CHANA	
		CORN FLAKS	SHEERA	MASALA OATS	VEG UPMA	CORN FLAKS	SAMBAR	CORN FLAKS	
	Main- II	CHUTNEY	JILLIAN	CHUTNEY	CHUTNEY		TOMATO CUTNEY	CHUTNEY	
	BREAD	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	PLAIN BREAD/ WHOLE WHEAT	
ſ	HOT Beverage	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	TEA, COFFEE, MILK	
		COLESLAW	TOMATO CUCMBER	ΤΟΜΑΤΟ ΡΟΤΑΤΟ	COLESLAW	TOMATO CUCUMBER	COLESLAW	ТОМАТО РОТАТО	
	EGG	BOILED EGG		BOILED EGG		BOILED EGG		BOILED EGG	
	Fruit	BANANA		BANANA		BANANA		BANANA	
	Butter	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER	BUTTER	
	Jam	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	FRUIT JAM	
	Pickle	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	MIXED VEG PICKLE	
	LUNCH (12:00 to 14:30)								
ľ	DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
	Salad	GREEN SALAD	SPROUT SALAD	GARDEN FRESH SALAD	TOSSED SALAD	GARDEN FRESH SALAD	TOSED SALAD	GREEN SALAD	
	Rice Dish	JEERA RICE	STEAMED RICE	STEAMED RICE	STEAMED RICE /VEG BIRYANI	STEAMED RICE	JEERA RICE	STEAMED RICE	
	DAL	TOOR DAL TADKA	KADHI PAKODA	RAJMA MASALA	VEG SAMBHAR	PINDI CHOLLE	LASUNI HING DAL TADKA	CHAWALI MASALA	
	VEG	TAWA VEG	ALOO BLACK CHANA	KADAI SOYABEEN	ALOO MASALA	KAHTTA METHA KADDU	ALOO GOBHI MUTTER	TAWA VEG	
	Curd/SOUP	BUTTER MILK	ROOH AFZA	CURD	VEG RAITA	BUTTER MILK	JAL JEERA	SWEET LASSI	
	Bread- I	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	PHULKA/PESARATTU	PHULKA/POORI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	
	CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	FRIED CHILLI	
	SPECIAL	GARLIC CHUTNEY	GREEN CHUTNEY	GREEN CHUTNEY	GARLIC CHUTNEY	GREEN CHUTNEY	TOMATO CHUTNEY	GARLIC CHUTNEY	
	PAPAD	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS	FRYUMS	
	JAIN FOOD	TAWA VEG	BLACK CHANA	KADAI SOYABEEN	CABBAGE PORIYAL	KAHTTA METHA KADDU	GOBHI MUTTER	TAWA VEG	
				H.T(17:00TO1	8:00)				
	MAIN	MAGGI	FRUIT CAKE	KHAMAN DOKLA	BHEL PURI	KACHORI	CHOCOLATE DOUGNUT	MIX SAUCE PASTA	
	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	TEA/COFFEE	
				DINNER(19:30T	021:30)				
	DISH TYPE	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
	Salad	GREEN SALAD	GREEN SALAD	GREEN SALAD	CORN PEANUT SALAD	GREEN SALAD	GREEN SALAD	GREEN SALAD	
	Rice Dish	PLAIN RICE	JEERA PULAO	STEAMED RICE	STEAMED RICE	STEAMED RICE/FRIED RICE	STEAMED RICE	STEAMED RICE	
	DAL	WHOLE MASOOR DAL TADKA	DAL MAKHANI	MASOOR DAL TDKA	TOOR DAL TADKA	MOONG DAL TADKA	DAL MAKHANI	CHANA MOONG DAL TADKA	
	VEG		DUM ALOO		BHINDI MASALA		SOYA CHANP MASALA	VEGETABLE BIRYANI	
	PANEER	MUTTER PANEER		PALAK PANEER		CHILLI CHICKEN (BONE LESS)		PALAK KOFTA CURRY	
	NON VEG	EGG CURRY		RARA CHICKEN		CHILLI PANEER		CHICKEN BIRYANI	
	Dessert		FRUIT CUSTARD		SEVAIN KHEER		JALEBI	VEG RAITA	
	Bread- I	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	MULTIGRAIN ROTI	
	JAIN FOOD	MUTTER PANEER	TAWA VEG	STUFFED CAPSICUM MASALA	KOFTA CURRY	CHILLI PANEER	SOYA CHANP MASALA	PALAK KOFTA CURRY	



AUDITS

PURPOSE - The purpose is to establish guidelines for conducting various audits against requirements of various food safety management system, guidelines being adopted & established internal requirements.

SCOPE - It is applicable for all the operational units of QFS

RELEVANT STAKE HOLDERS

S.No.	Process Step	Responsibility	Authorized by
1	GMP/GHP/Physical	Quality InCharge/Ops	Quality Head
	verification of store	team	
2	Vendor /Supplier Audit	Quality InCharge	Procurement
2	Internal Audit by Quess	Unit Head/Quality	GM/Business Head
	Management	InCharge	
3	NABH Audit –	Quality Head/Unit	Client/Business Head
	Coordinator	Head	

INTRODUCTION

Across all the QFS units various types of audits are carried out are as below

Types	Dept	Audits	Frequency
Internal	Quality Team/	GMP audit,	Monthly/
audits	Ops team/	Store Physical	Quarterly
	Costing team	verification (PV)	(PV)
		audit.	
Internal	Quess	Quess	As per
audits	Management	Management	manageme
		Audits	nt schedule
Internal	Internal team	Vendor/	Quarterly/
audits	of Quality	Supplier Audit	Biannually/
	Team		Yearly
	/Op steam/		
	Procurement		
	team -		
Certification	Certifying	NABH – Co	As per unit
Audit	bodies	coordinator	requirement
	/agencies		



PROCEDURE

GMP/GHP Audits

- Every month there will be a GMP/GHP audit conducted by the Quality Team or the Ops managers of site wherever Quality team are not available.
- Audit schedule will be made by the Quality Head and shared to the specific unit heads on monthly basis or can be surprise also anytime in a month
- Format/Checklist is provided to the auditors by the Quality Head against which the audit will be conducted.
- The marking for different points are to be followed as below
- All complied will be given 1(One) mark.
- Non critical & partially complied can be given between 1(One) to 0(Zero) as per their judgment in the complied column.
- If the requirement is critical to food safety and not complied then auditor can put -1(Minus one) mark in the major (Not complied) column.

NOTE - Requirements related to infrastructure and surrounding which is under scope of client and not complied has to be given as NA & mentioned as client scope in the complied column. Same has to be maintained and discussed with client at least bimonthly once and same to be documented in separate tracker.

- The sum of the negative marks will be deducted from the sum of the complied mark an on which the percentage is calculated.
- Post audit the auditor has to discuss the non-complied requirements with the unit head and get acknowledged.
- All the reports from auditors are to be shared with Quality Head in soft copy.
- Any other findings/observations apart of the list can be shared in the mail body or by creating another sheet in the report while sharing the report.
- The audit reports/work sheet can be kept with the auditor and the same has to be shared when asked.
- Quality Head shall share the result of the audit to all unit heads and business head in monthly review meeting.

2) Physical verification of store audit (Quarterly by Quality Team)



- On Quarterly basis there will be a Physical verification (PV) audit conducted by the Quality Team. However Cost controllers/ Executive of Ops Team support shall be taken wherever Quality in charges are not available.
- Audit schedule will be made by the Quality Head and shared to Store Head.
- A PV format is provided to the auditors against which the audit has to be carried out.
- After the audit, hard copy of the same with working format should be shared to Quality Head.
- It will be verified and all the compiled reports of QFS units should be shared to Store Head & Finance/Business Head of Food Services.
- For any deviations in the reports the Store –Head to come up with action plan taken with required approvals from Unit head/Finance Head.
- 3) Vendor/Supplier Audit
- A registered vendor list is maintained by the purchase team.
- Frequency of audits based on supplier category –Quarterly to Biannually.
- In case of emergency vendors can be audited as on when required & shall be uninformed.
- An audit date is finalized and audit is conducted on that day on coordinating with purchase team.
- Once the audit is done, a report which consists the score, nonconformities, area of improvements is submitted to the purchase team.
- The vendor is asked for the correction & corrective action for the identified NCs & Area of improvements if any with deadline.
- The vendor is followed up for the improvement by the purchase team and updated to Quality Executives.
- Re-visit by the Quality Team and purchase team to the site is done in case of major non-conformities.
- The findings and closures are acknowledged from the vendor and recorded for vendor performance analysis.

NOTE -If the vegetable suppliers doesn't have any segregation & storage **facility such vendor audit may be excluded.**



Small retailer & non-food supplier may also be excluded from the vendor audit.

4) Audits conducted by Quess Management

- There could be audits by Quess Management like Enterprise Risk Management (ERM) Audit/any new audits decided by Quess Management as part of continues improvement and to strengthen the existing process of Operation.
- A prior advance communication with agenda of the audit to be mailed to Unit Head/Business Head/GM of Ops with details like Purpose of audit, how many auditors and the number of days of auditing will be done so that the Ops team can plan their operation of the unit and take client approval if needed.
- Auditors from Quess Management shall adhere to the QFS policies while in the premises of kitchen and shall be monitored/assisted by Senior Supervisors/Unit heads/Quality Head.
- Any documents need to verify shall be hand over by Quality InCharge/Unit heads and controlled copy to be provided if needed.
- After the audit the report shall be shared and discussed with Unit Head/Quality Head/Business Head/GM Ops before sharing to top management.
- For any deviations in the reports the Unit –Head/Quality Head to come up with action plan with required approvals from GM Ops/Business Head.



SOP – STORE MANAGEMENT

PURPOSE: To ensure all category of raw materials being received as per the requirement applicable all material receive (stock able/non stock able) & chemicals.

SCOPE - The scope covers

- a) Receiving
- b) Storage

RELEVANT STAKE HOLDERS

S No	Process step	Responsibility	Authorized by
1	Purchase of material against raised indent	Store in-charge	Unit head
2 a	Receiving of the raw material- Stock able	Store In-charge	Quality Team/Unit Chef
b	Receiving of the raw material- Non Stock able	Store In-charge/Unit Chef/Quality Team	Quality Team/Unit Chef
3	Return of the rejected items	Store In-charge	Quality Team/Unit Chef
4	Storage of the received items	Store in-charge	Quality Team/Unit Chef
5	Issue of the items	Store in-charge	Unit chef/Unit Head
6	Inventory Management	Store in-charge	Unit Head

NOTE - **Non stock able items includes** –Fruits, Vegetables, Milk, Paneer (**might vary from unit to unit**) & Ready to eat items like packed Chapathi etc

Stock able items includes – Dry groceries like cereals/dhals/pulses/oil, non-perishable/semi perishable items etc

a) <u>Receiving</u>

Receiving

Quality check (dry, chilled and frozen)

Temperature and infestation check

Transportation checked

I. <u>General instruction at the time of receiving</u>

- Check produce for signs of spoilage, insect & dirt.
- Check the temperature of delivered product using suitable thermometer when needed.
- Do not buy/use cans that are dents and packages for leaks and tears.
- Check the FSSAI & labeling details





- Don't receive & accept any food materials which have manufacturing date more than 3 months especially MRP based/packed items and Ready to Eat /drink products. Frozen products may be expected.
- Do not buy/use cans that are dents and packages for leaks and tears.

Meat /Fish/Poultry

- **Temperature:** The seafood/meat should be received ≤ 5° C ,
- Frozen fish items shall be received -18° C
- Texture: Firmness, Color : No discoloration , Odour: No offensive odour
- Package: Container should be surrounded by Ice and not soiled.
- Within Expiry date and FSSAI labelling visible.
- No Feathers in case of poultry i.e., chicken.

Egg

- Shell: Clean , unbroken, no fecal matters
- Crates: No pest signs, free from dirt.



• Freshness test for eggs to be randomly carried out and recorded by Quality/Unit Chef whenever available.





Chilled & Frozen food

- Temperature: Chilled food should be received at *5°C* or below unless specified by manufacturer.
- Temperature: Frozen food should be received at -18°C.
- Package in good condition (No Damage / leakage)
- No out dated/Expired Product & compiles with FSSAI Labelling

Ready to eat food/Packed items

- Ready to eat/drink food includes, baked chapatti, sweets, deep fried/ baked snacks, chats, cakes & pastries, flavored drinks/chips/biscuits etc.
- The condition of the vehicle is to be checked for the cleanliness and pest infestation.
- The food containers are to be checked for packaging, cleanliness.
- The items are to be checked for freshness, desired & texture and odour.
- No newspaper shall be used in any sort for packing /covering.

Vegetables & Fruits

An acceptance criteria for the fresh product would vary from each product. However basic common criteria of acceptance are as below.

Quality executive (whenever available)/Unit chef shall carry out the Inspection at the time of receiving.

In the absence of Quality/Unit Chef –Store InCharge shall also receive the same based on the below common criteria and accept it.

- Freshness, Appearance like Size , Color , heavily spoiled/muddy
- No spoilage, moldy and fungal growth on outer surface.
- No sprouting (especially Potato, onions)
- No Damage /broken /holes/worm infestation

<u>Milk</u>



- Temperature of Dairy products should be received at **5** °**C** or below
- Packaged in good condition & should not be soiled.
- Check the Best before dates should be printed properly, No smudging/manual written/sealed with ink to be found.
- No foul smell

Rejections

- In case of on-spot rejection, the material is immediately returned along with the vendor representative.
- If material cannot be not returned immediately, then it is ensured that the material is kept segregate in a defined segregated area and after that it is returned to the vendor.
- The action of rejection is noted in the Inspection and Rejection Record.
- If the partial or whole lot of the items is rejected by Quality Team /Unit Chef & stores will intimate purchase department for necessary action regarding rejection and replacement. There will be a rejection report generated by the store in-charge and shared to the procurement team.
- An acknowledgement shall be taken from the supplier on mail for rejected items.
- In case of short supply, partial rejection or complete rejection of a material, the vendor shall replace the required quantity within the agreed timeline defined by store/purchase In-charge.

b) <u>Storage</u>

1) General instruction for storage (Dry storage)

- Store dry items and packed items separately.
- Keep food items covered all the time.
- Ensure all foods items are labelled wherever required. Store all food 15cm (6 inches) off the floor to facilitate cleaning and to prevent pest movement coming in contact with food easily.
- If there are any Items with glass packaging it shall be kept on the lowest most rack.

Rotate stock using (FIFO- First in First Out) method i.e.

- What comes in first goes out first.
- It reducing waste & FIFO also makes it easier to identify food that is about to expire.





FEFO - An alternative method is first-expired, first-out (FEFO), in which the products closest to expiration in inventory are issued first.

- If the stock item is not moving over a period of time (2 weeks -1 month) or if it is near to expiry such stocks information shall be communicated to Chef/Unit head so that stocks can be issued for usage in production.
- On taking required approval either it has to be issued and moved out from the main store or need to check with the supplier for exchange before the best before usage date.



a) Walk In Cooler Storage & Deep Freezer

- The vegetables are stored inside the Cold room at ≤5°C and frozen items are kept inside the Deep freezer at -18°C immediately after receiving.
- The vegetables, fruits & dairy items shall be stored as per FIFO/FEFO.
- The in-processed and processed items are stored with manufacturing date, Use by date, and name of product.
- The temperature of walk-in cooler shall be maintained ≤5°C and the temperature of the deep freezers are maintained at -18°C.
- The temperature is recorded in the walk-in cooler temperature record & freezer record after every specified intervals.
- Items in cardboard boxes to be avoided in the cold units.



<u>Records</u>

Record name	Format number	Responsible
Approved Vendor list	QFS/HC/STR/ANX/02	Store In charge
Cleaning – Store	QFS/HC/STR/01	Store In charge
Chiller – Temperature	QFS/HC/STR/02	Store In charge
Freezer – Temperature	QFS/HC/STR/03	Store In charge
Receiving A & Rejection	QFS/HC/STR/04	Store In charge
Receiving B & Rejection	QFS/HC/STR/05	Store In charge
Sorting –Raw materials cleaning	QFS/HC/STR/06	Store In charge





Manipal University Jaipur Provides Access to Food Security Knowledge to Local Farmers and Food Producers

Food security is a critical global issue, and its importance is felt keenly at the local level. Manipal University Jaipur has taken on a vital role in addressing this concern by extending their resources and expertise to local farmers and food producers. Manipal University Jaipur is becoming a valuable source of knowledge and support for those working to ensure food security within the communities. Manipal University Jaipur has been a center of knowledge and innovation. It possesses a wealth of information, research, and expertise in various fields, including agriculture, nutrition, and environmental science. Recognizing its potential to make a significant impact, Manipal University Jaipur is actively engaging with their local agricultural communities to promote food security.

Manipal University Jaipur is conducting cutting-edge research to develop new agricultural practices, crop varieties, and technologies that can enhance food production and sustainability. Local farmers and food producers benefit from access to this research, which helps them improve their yield and reduce environmental impact. (Annexure 1,2 & 3) Manipal University Jaipur organizes training sessions, workshops, and extension programs specifically designed for farmers and food producers(Picutre1& 2). These programs teach best practices in agriculture, pest management, and sustainable farming methods, empowering local communities with knowledge that can boost food production and quality. (Annexure 4) Manipal University Jaipur provides access to valuable resources, such as soil testing labs, agricultural libraries, and specialized equipment. (Annexure 5&6) These resources can be costly for individual farmers but become accessible when universities offer their facilities to the local community. Manipal University Jaipur collaborates with local farmers and food producers, creating a mutually beneficial partnership. Farmers contribute practical knowledge, while researchers provide scientific expertise, leading to innovations that address real-world challenges.

Manipal University Jaipur plays a pivotal role in promoting food security by sharing its knowledge, research, and resources with local farmers and food producers. (Annexure 7) Through collaboration, education, and community engagement, universities empower communities to tackle food security challenges effectively. Manipal University Jaipur





continues to work hand-in-hand with local stakeholders, the path toward a more secure and sustainable food future becomes increasingly attainable for all.(Annexure 8,9)



Picture 1: Organic farming activities at MUJ Campus



Picture 2: Food testing at MUJ lab

MUJ/Q&C/FoMC/SHTM/2022/MoU Activities -HTMi



FACULTY OF MANAGEMENT & COMMERCE

SCHOOL OF HOSPITALITY AND TOURISM

MANAGEMENT

DEPARTMENT OF HOTEL MANAGEMENT

&



Cross Cultural Hospitality Scopes

Faculty Interaction

14th Oct 2022

03:00 pm onwards



- 1. Introduction of the Event
- 2. Objective of the Event
- 3. Beneficiaries of the Event
- 4. Details of the Guests
- 5. Brief Description of the event
- 6. Photographs
- 7. Brochure or creative of the event
- 8. Attendance of the Event

1. Introduction of the Event

School of Hospitality and Tourism Management and HTMi, Hotel and Tourism Management Institute Switzerland had conducted an interactive session to discuss various hospitality scopes.

2. Objective of the Event

The objective of the session was:

• Strengthen the relationship between the two partners and discuss various scopes.

3. Beneficiaries of the Event

- Hospitality & Tourism students
- Faculties

4. Details of the Representatives of HTMI

- a. Mr. Nishant Suri Marketing Head, HTMi Switzerland
- b. Chef Andreas Kurfrust Head of HTMi Culinary Education

5. Brief Description of the event

Dr Shweta Upamanyu, Faculty, SHTM opened the session and invited the representatives of HTMi, Switzerland. She also spoke about SHTM, MUJ. Mr. Nishant Suri welcomed the audiences and introduced HTMi Switzerland. Dr Amit Datta spoke about Indian tourism scopes and how the students of the HTMi may be benefitted by exploring the hospitality culture of India. Chef Kurfrust discussed regarding the food culture of Switzerland and how the students of MUJ may be benefitted. The session was very informative for all faculties and how they may explore it further that may be useful for both the MoU partners. Dr. Shweta Upamanyu ended the webinar with a vote of thanks.



6. Screenshots of the event



Screenshot of the faculty interaction session

7. Brochure or creative of the event





8. Attendance of the Event:

Total attendee - 07

Sr. No	Name of Institution	Name of Attendee
1	MUJ	Shweta Upamanyu
2	MUJ	Mukesh Shekhar
3	MUJ	Deepak Pokhriyal
4	MUJ	Amit Datta
5	MUJ	Aravind Kumar Rai
6	HTMi	Nishant Suri
7	HTMi	Andreas Kurfurst

ANNEXURE: Mail





Post Event Report

FACULTY OF DESIGN

Seminar on 'Bamboo' On the occasion of World Bamboo Day

> Venue: Smt. Sharda Pai Auditorium Time: 10:30 AM-12.30 PM 18th September 2022



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3.	Beneficiaries of the Event:	3
4.	Details of the Guests	3
5.	Brief Description of the event	4
6.	Media Coverage & Images	5
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8.	Schedule of the event	8
9.	Attendance of the Event	8
10.	Weblink	9
11.	Event Coordinators:	9



1. Introduction of the Seminar:

World Bamboo Day is celebrated on 18th September in every year. To celebrate this day The Seminar on Bamboo has been organised in Smt. Sharda Pai Auditorium. The main aim of the seminar was to create awareness of various possibilities of Bamboo construction. It intended to give path to reduce dependency on conventional materials so that we reduce Carbon footprint, and we can further achieve sustainable developments.

2. Objectives of the Seminar:

- Understanding the various application of Bamboo in Exterior and interior spaces.
- To create awareness about bamboo in different regions.
- To understand its production techniques

3. Beneficiaries of the Event:

- UG Students (Architecture, Design and Construction related Fields)
- PG Students (Architecture, Design and Construction related Fields)
- Research Scholars
- Academicians and Industry Professionals
- Farmers

4. Details of the Speakers:

Mr. Pasha Patel is Governing Council Member, Bureau of Indian Standard (BIS) Govt. of India. He is member, Board of trade, Ministry of Commerce & Industry. He is pioneer in promoting Bamboo in various part of India. He has proposed various policy guideline & got implemented in various Government Documents. He is very much passionate to spread message about the possibility of Bamboo. He conducted various seminar and conferences in India as well as Abroad. He has devoted his whole life to facilitate bamboo related studies, its application & preservation strategies to farmers & academicians.

Mr. Sanjeev Shashikant Karpe is a qualified Electrical Engineer has been associated with bamboo Industry for last eighteen years and has pioneered the work in setting up of self- sustainable bamboo-based enterprise in rural India. He is a Founder and Director with Konkan Bamboo & Cane Development Centre (KONBAC), an organization working for sustainable development through use of bamboo as a resource & implementing various bamboo projects successfully for last 17 years. He is also an Expert member on the steering committee of "INBAR



Task Force - Bamboo Construction". International Network for Bamboo & Rattan (INBAR) is an Intergovernmental body having 48 member counties and headquartered at Beijing, China

He is also National governing council member of Bamboo Society of India, Bangalore, a not-for-profit organization (NGO) working for promotion of bamboo in the country for last 40 years.

His specialties include:

- Provide training to use Bamboo with hands on experience.
- Strong communication and presentation skills
- Strong Ability to connect with and relate to students & farmers
- Dynamic team player and an Effective speaker

5. Brief Description of the event:

Faculty of Design conducted a seminar on 'Bamboo' to give awareness to students, researchers, academicians, and Farmers. On the auspicious occasion of world Bamboo Day. Farmers as well as people's representatives of surrounding villages were invited to participate the event. The poster has been circulated in the university portal so that MUJ user & students can get benefited. The event has been covered by various newspaper of Rajasthan and Maharashtra.

The Seminar was held in Smt Sharda pai Auditorium from 10.30 AM to 12.30 on 18th Sept. 2022 PM. The event began with an inaugural session at 10:30 am. Ms Manya Sharma President FOD Student Council, FOD welcomed the speakers, dignitaries, farmers, and Students which was followed by Prof. (Dr) Madhura Yadav, Dean, Faculty of Design addressing the session. Thereafter, the Eminent speaker, Mr. Pasha Patel & Mr. Sanjeev Shashikant Karpe gave their expert lecture/Presentation related to different aspects of Bamboo. Hon arable Prof G.K. Prabhu, President MUJ shared his experience and gave very insightful thought related to Bamboo as sustainable material. People's representatives also shared their views, farmers as well as students have actively participated in question answer sessions. Bamboo plantation ceremony was organised at the end of the event. Keynote speakers, Prof. G. K. Prabhu and dignitaries have participated with commitment that this type of event should be organised in regular interval. The event was concluded with vote of thanks by Ar. Sanjeev Pareek Assistant professor, SA&D to all speakers and Participants.



Media Coverage-6.



Ujjwal India, 24 September 2022

विश्व बांस दिवस के उपलक्ष्य में मणिपाल यूनिवर्सिटी जयपुर में कार्यक्रम बांस की खेती अपनाने से खेती में होगी

आर्थिक क्रांति : पाशा पटेल

Hindustan Express, 24 September 2022

समाज की सेवा करना और विकास में मदद करना विश्वविद्यालय का कर्तव्यः प्रो. प्रभ्



विश्व बांस दिवस के उपलख्य में मणिपाल यूनिवर्सिटी जयपुर ने कार्यक्रम

बांस की खेती अपनाने से खेती में होगी आर्थिक फ्रांति

से किसानी को माली हालत सुधरेगी और कृषि क्षेत्र में आणिक जाति आगरी। बांध कम पानी और कम उपजाऊ जमीन में भी आसानी से उग सकते हैं। यह बात व्युरो आफ इंडियन ग्रीहर्तुम के मजीनेंग काठीमल मेंका पाशा पटेल ने कही। हाल ही में पिश्व वांस दिवस के उपलब्ध में फैकाफी आफ हिलाइन में हुए बार्एकम में बतौर बका उन्होंने यह विचार व्यक्त किए। कार्यक्रम में स्थानीय किसानी व्युत्तवांधंटी जपपुर बांध को खेती के और जनप्रतिनिधियों ने भी भाग लिए किसानें की मह करेंगी। समाव लिया उन्होंने बड़ा कि मणिवल यूनिवसिंटी जण्पुर में बास को खेते के लिए प्रस्नंर प्रोड्यूसर अपिस बनेगा। जहां किसानी को बॉस की एफरोओ के मध्यम से किसानों को खेती के लिए प्रेरित किया जाएय।

आफ डिजाइन की डीन प्रो. (अॅ.) मथुर यादव ने कहा कि विध बांस दिवस पर हुए कार्यक्रम में पधारे आगंतुकों और किसाने का स्वागत किया। उन्होंने बांस की खेती के अधिक कमाई कर सरके हैं। यहां से साल का सा

ठन्नसंस सम्बन्धना संत्री अपने में सिम्पानी को माली एमेगी और कृषि के में आपने बताने में भी आपने में उग सकते का स्त्री आपने सिंह मार्ट कर सिंह का स्त्री का में प्रचार के स्त्राप्त के स्त्राप्त का सार्वनी प्रकार किसानों की सार्वनी प्रकार किसानों की सार्वनी प्रकार किसानों की सार्वनी प्रकार किसानों की सार्वनी प्रकार किसाने की स्त्राप का किए। मार्ट सिंहम प्रकार प्रकार सार्वनी के सार्वनी के सिंहम प्रकार प्रकार की सार्वन की स्त्री के सार्व किसान के सार्व की से से की सेती के प्रयोग हमारे पर्यावरण के लिए वज्र खतरा है। उन्होंने कहा कि पर्यावरण को संतुलित रखने में बांस को खेती जहुत उपयोगी साबित हो सकती है। कोनवेंक के संस्थापक डायरेक्टर राजे

तो क्षेत्रों के लिए कमरे प्रोर्ग्यूसर, आधिकर तो सकती है। तेरा रार्ज किस्मार्ग के स्वेस को क्षेत्रों के के केनेते के सं संस्थापक ठायेंस्टर इ.से. संग्रीश किया जाएगा। उन्होंने कहा कि हमें अपनी आरंग वाली किस्मार्ग की जागरक किया उन्होंने बनाया तेरी को बराने के लिए हजा और पत्नी की किस्मार्ग के जुड़े उसेगों की एक सहुत पहीं तात्रों को बराने के लिए हजा और पत्नी की किस्मार दें इ.सं राप किसान कम भेहता है।

वल इण्डिया संवा

मराढवाडा नेता



राजस्थान देश व मानव जातीच्या रक्षणासाठी बांबू लागवड करा

मणीपाल युनिर्व्हसिटीमध्ये माजी आमदार पाशा पटेल यांचे आवाहन

बांबू लागवड चळवळ

गावागावापर्यंत पोहंचवणार न्सलर प्रभू यांचे प्रतिपादन णीपाल युनिर्व्हसिटीचे व्हाईस

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को खोती हिमांद है।

और पानी को अधाना होगा। अनावरणक रूप से पारीनों का प्रयोग हमारे पर्यावरण के लिए बडा खतरा है। उन्होंने कहा कि पर्यवरण को धंतुलित रखने में बांस की खेती बहुत उपयोगी साबित हो सकती है। कोनकेक के संस्थापक तापनेकटर - पाशा पटेल इ.से. संजीव कारपे ने बांध की खेती काने के लिए किसानों को जानकक

किया। उन्होंने बताया कि बांस से जुदे उद्योगों की एक बहुत बड़ी मार्केट है जहां पर किसान कम मेहनत में अधिक कमाई कर सकते हैं। बांस से सजावटी सामान के साथ अन्य परेल् उपयोगी तस्तुरं चनाई जा सकती है। अब तो बांध उद्योग वैश्विफ तो गया है और विदेशों में भी इन वस्तुओं की डिमांड है। नए संसद भवन को पल्लेशित बांध से बात की है। प्रतिपत्रल युनिवसिटी के ग्रेसिडेंट ग्री. (डी.) जीके प्रभु ने करा कि मणिपाल को सेवा करना और उसके विकास में मदद करना विश्वविद्यालय का कार्तव्य है। मणिपाल पुनिवसिंटी जयपुर हर संभव सहयोग करेगी।

उन्होंने कहा कि हमें अपनी आने

वाली पीड़ी को बाधाने के लिए हज

हिन्दुस्तान एक्सप्रोस जपरपुर। बांग की खेती अपकने

बांस की खेती अपनाने से खेती में होगी आर्थिक क्रांति : पाशा पटेल

बासा ।दवस पर आगंतुकों और किया। उन्होंने व



7. Images



1. Inaugural Address by Prof. (Dr.) Madhura Yadav, Dean, FoD



2. Introductory Lecture by Key note speaker-Mr. Pasha Patel and Mr. Sanjeev Shashikant Karpe



3. Sharing experience by Honarable Prof G.K. Prabhu 4.. Discussion session with Farmers & Peoples representatives President MUJ



5. Greetings to key note speakers







6. Bamboo plantation ceremony near S.T.P. at MUJ Campus

8. Brochure of the event:





9. Schedule of the event

S.No.	Description	Time
	Introduction & welcome note by Manya Sharma Student council president	10.30 AM
1		
2	Presentation of Bouquet to Mr. Sanjeev Shashikant Karpe and Mr. Pasha Patel byProf (Dr.) Madhura Yadav and Prof (Dr.) Sampath kumar Padmanabha Jinka	10.35 AM
3	Welcome Address by -Prof (Dr.) Madhura Yadav, Dean Faculty of Design	10.40 AM
4	Presentation on Bamboo Plantation by Mr Pasha Patel.	10.45-11.30
	Presentation on Bamboo Value Addition by Mr . Sanjeev Shashikant Karpe.	11.30-12.15
5		
6	Vote of Thanks By Ar. Sanjeev Pareek	12.15 PM
7.	Bamboo Plantation Ceremony	12.30 PM

10. Attendance of the Event:

WORLD BARGOD DAY ORGANISED BY FACULTY OF DESIGN (18th SEPTEMBER 2022 - SATSANDA HI ANTREIUM) D 200001100 0715 B-22, 37101 07315, 131797-3/ 9414030250 (२) ब्रीमाराम सारण - 3672155339 लूणी, जीयपुर) अपाया 28619 - भाषकोटा, जन्यपुर 3. TH CHEIN OTIST UT CHERCEN a Children Olin mineller & children Manuncoz 0141-98877 18980 Whitm 63779 87631 4 GIANTETS XPOTT 9829716554 ज्याज स्ताइनेहिय 8003297657 aty moste Bin auy2 5. nty une fair uny? 8947901115 a Satyanarayan Sharman 9887852354 7 Prahlad Kumawat Dhamikala 7230080228 8. วกิปเห อหเลย แลง mmil n. 3929234268 9 2012 ener yrad sch bor 9829257885-10 20100 grand - Feit and - (2) 1340656620 11 amazin 2012 4 EAT 22 8 32 14.561945 12 Manish Bruja Let 8152 822807

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11. Weblink:

https://www.youtube.com/watch?v=wi4edh5WyOo

12. Event Coordinators:

• Ar. Sanjeev Pareek (Assistant Professor, SA&D)

Ar. Sanjeev Pareek (Assistant Professor, SA&D)

Prof. Sunanda Kapoor Head



Event Report By Abhigya Club ECE, SEEC, FoE, Manipal University Jaipur

SaveSoil Event

at Jaipur Exhibition & Convention Centre (JECC) 3rd June, 2022

Physical / Off-line Event



1. Introduction of the Event:

Save Soil is a global movement launched by Sadhguru, founder of Isha Foundation, to address the soil crisis by bringing together people from around the world to stand up for Soil Health, and supporting leaders of all nations to institute national policies and actions toward increasing the organic content in cultivable Soil.

Students of Abhigya club, MUJ organized 'STAND FOR SOIL' event to show support for this initiative and welcome Sadhguru to Jaipur, Rajasthan.

2. Objective of the Event

The objective of the events:

- a) To show support for 'Save Soil' initiative of ISHA Foundation
- b) To attend the SaveSoil event at Jaipur Exhibition & Convention Centre (JECC)
- c) To learn about the significance of this movement from Sadhguru himself.

3. Beneficiaries of the Event

- d) MUJ students
- e) Society / community / Humanity

4. Details of the Guests

- 1) Sadhguru from ISHA Foundation
- 2) Mr. Rajesh Chand Meena, the Minister of Panchayati Raj & Rural Development, Raj,
- 3) Mr. Lalchand Kataria, the Agriculture Minister of Rajasthan
- 4) Ila Arun, famous folk singer Other dignitaries

5. Brief Description of the event

Conscious Planet is an effort to raise human consciousness and bring a sense of inclusiveness such that multifarious activities of our societies move into a conscious mode.


An effort to align human activity to be supportive of nature and all life on our planet.

In this inclusive undertaking of Save Soil Movement, governments, UN agencies, global leaders, organizations, eminent members of the environmental and scientific community, corporate and individual citizens are uniting behind a common purpose to address the alarming crisis of Soil Extinction. For our children and future generations, it is critical to leave behind a planet capable of producing nutritious food and sustaining all life.

Sadhguru was on a 100-day Motorcycle Journey, from the United Kingdom to India movingacross 27 Countries, covering more than 30,000 kms of distance. The objective of the event was to learn from Sadhguru & understand the opinions of different ministers of Rajasthan government.

Abhigya club students attended this event with other MUJ students. The event was in physicalmode with guests coming from various walks of life at JECC, Jaipur.

6. Photographs



1) Abhigya Club & MUJ Students going to JECC by MUJ bus



Lat-Long: 26.783774863280943, 75.82725299203683

2) Abhigya Club & MUJ Students attending the Save Soil event at JECC Jaipur





3) Abhigya Club's faculty coordinator volunteering at the Save Soil event, JECC Jaipur



4) Shri Kutle Khan ji performing on stage





6) Isha Samskriti group performing on stage

5) Smt. Ila Arun ji attending the Save Soil event



7) Sadhguru handing over the Save Soil policy document for Rajasthan to Honourable Minister



7. Brochure or creative of the event



8. Schedule of the Event

Date: 3rd June, 2022 Time: 6:30 PM - 8:30 PM

Venue: Jaipur Exhibition & Convention Centre (JECC)



9. Attendance of the Event

giving to JECC for save soil Event Students Nandi arashan - 6378218858 8289017474 La 0869815998 606464 45 Pap hau 7647901917 ad Dal 7014245287 6201378546 7742442976 8602630989 9634224919 ved 009929026 9876735820 35212811 \$20 gas 3766 9310177719 8851UUS604 aid 7993418246 Ihav le 970 159 P550 Uthpala ana 4 8894951282 19 9381214841 9751202711 2 976067950) 799548745 1014113154 29 9870893465 21 2015 26

10. Faculty Coordinator:

-s/d-

Dr. Rohit Mathur - Department of ECE, SEEC, MUJ



Event Report By Abhigya Club ECE, SEEC, FoE, Manipal University Jaipur

<u>Stand for Soil</u> 2nd June, 2022

Physical / Off-line Event





1. Introduction of the Event:

Save Soil is a global movement launched by Sadhguru, founder of Isha Foundation, to address the soil crisis by bringing together people from around the world to stand up for Soil Health, and supporting leaders of all nations to institute national policies and actions toward increasing the organic content in cultivable Soil.

Students of Abhigya club, MUJ organized 'STAND FOR SOIL' event to show support for this initiative and welcome Sadhguru to Jaipur, Rajasthan.

2. Objective of the Event

The objective of the events:

- a) To show support for 'Save Soil' initiative and
- b) To welcome Sadhguru to Jaipur, Rajasthan.

3. Beneficiaries of the Event

- c) MUJ students
- d) Society / community / Humanity

4. Details of the Guests

Shri Sadhguru ji, founder of ISHA Foundation

5. Brief Description of the event

MUJ ABHIGYA CLUB took an initiative to bring awareness about soil conservation by organizing a 'Stand for Soil' event near Jaipur-Ajmer Expressway outside Hotel Highway King, a popular hotel on the expressway. Wherein students stood for two and a half hours and conveyed about soil conservation to local people and passerby's.

Sadhguru was on a 100-day Motorcycle Journey, from the United Kingdom to India movingacross 27 Countries, covering more than 30,000 kms of distance. The objective of the event was to bring awareness about soil conservation and to welcome Sadhguru to Jaipur as he moves towards his next destination on his Save Soil journey.



Abhigya club students conducted the event in physical mode with many students of ManipalUniversity and guests present at Hotel Highway King.

6. Photographs





1. Sadhguru acknowledges MUJ students & staff for their support



2. Students, ISHA volenteers and MUJ staff participating in 'STAND for SOIL' event





3. Guests at Hotel Highway King participating in 'STAND for SOIL' event

7. Brochure or creative of the event



8. Schedule of the Event

Date: 2nd June 2022 Time: 5:30 PM - 7:70 PM Venue: Hotel HighwayKing, Jaipur-Ajmer Expressway





9. Attendance of the Event

1) Sulanya Singh (1) Vary Veer Singh (1) Resham Borana	de .
(2) Manish Raj (2) Abhishek Gupta (2) Nandish Parasha	н
(3) Priyanuhy Baliyan (3) ta Lovinsh Bajaj (3) Madhu Bala	
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E A let Know (5) Annol Choubey (5) Ashish Yadav	
(5) Ankil hamber (6) Akansha Khandka	
(6) Aayush Kurhashi (7) Khyali Ramchandar	.i
(7) Manas Isipathi (8) # Ronda Hasith	a
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(5) Sarthal Anand	
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(3.) Survey hat De	
(i) Kashish Parman	
62) Chinmayee Datake	
Gai Karunya Papney	
(24) Harsh Bansal	

10. Faculty Coordinator:

-s/d-

Dr. Rohit Mathur - Department of ECE, SEEC, MUJ

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Event Report Format

FACULTY OF MANAGEMENT AND COMMERCE

SCHOOL OF BUSINESS AND COMMERCE

BUSINESS ADMINISTRATION

Visit to Akshaypatra

23/12/2022



1. Introduction of the Event

School of Business and Commerce organized a visit for its students to Akshaypatra, Jaipur on 23rd December 2022.

2. Objective of the Event

The visit to Akshaypatra was organised to provide a chance to the students to interact with the experts and teachers at Akshaypatra about self-discipline and understanding our roots. Also, during the visit, the students learnt about the functioning of Akshaypatra Foundationand its social contribution.

3. Beneficiaries of the Event

- Students
- Faculties

4. Details of the Guests

During the visit, Shri Pran Vallabh from Akshaypatra was the resource person. Students and faculties from SBC were also present.

5. Brief Description of the event

School of Business and Commerce organised a visit to Akshaypatra, Jaipur on 23rd Dec 2022 for its students. The visit started with an interaction between the teachers of Akshayapatra and students of SBC. During the interaction, various issues like discipline, self-control and yoga were discussed. The teachers explained the students the importance of understanding our culture and roots. After the interaction, the students took a guided tour to the Akshaypatra Kitchen. Experts from the foundation narrated the various systems and processes followed in the kitchen for food preparation. The students also learnt about the social contribution of Akshaypatra, which is working towards providing meals to underprivileged children.



6. Photographs of the event



Figure 1 MUJ students understanding the operation of Akshaypatra



Figure 2 Students are getting inputs : how to work for society"





Figure 3 official of Akshaya Patra introducing the working of organization



Figure 4 Valuable Inputs received by MUJ students



7. Attendance of the Event Total attendee- 35

List of participants

S.NO	NAME	CLASS
1	Kashish Jain	BBA III-C
2	Jaismin Tansukhani	BBA III-B
3	Chirag Saraf	BBA III-C
4	Bhavya Khandelwal	BBA III-B
5	Mayank Tyagi	BBA III-B
6	Manav Sankhla	BBA III-E
7	Jhanvi Agarwal	BBA III-B
8	Jay Sharma	BBA III-A
9	Pragya Jain	B.com Honours III-B
10	Harsh Kumar Singh	B.com Honours III-B
11	Palak Agarwal	B.com Honours III-B
12	Varsha Agarwal	B.com Honours III-B
13	Divyansh Gaur	B.com Honours III-A
14	Ashish Saini	B.com Honours III-A
15	Deepak Sahu	B.com Honours III-A
16	Ambudhi Choudhary	B.com Honours III-A
17	Nishtha Sethia	B.com Honours III-A
18	Purav Bhayana	B.com Honours III-A
19	Yash Dangi	B.com Honours III-A
20	Tanisha Doshi	B.com Honours III-A
21	Hemant Sharma	B.com Honours III-A
22	Manan Sachdeva	B.com Honours III-B
23	Pratibha Keshwani	B.com Honours III-B
24	Jay Sharma	BBA III-A
25	Siddhant Garg	B.com Honours III-A
26	Priyanka Kumari	BBA III-C
27	Yajat tak	BBA III-C
28	Devansh Garg	B.com Honours III-B
29	Ramay Mehta	BBA III-C
30	Tanishq haldiya	BBA III-C
31	Palak Chouhan	BBA III-C
32	Rishik saraf	B.com Honours III-B
33	Varsha Agarwal	B.com Honours III-B
34	Prem Raj	B.com Honours III-B
35	Bharti Vyas	B.com Honours III-B

el. B

Head Department of Business Administration Manipal University Jaipur

Universal Review

Scientific Information and Technological Board of Sadhana



www.universalreview.in

Index in Cosmos

Impact Factor: 5.525

Volume 10 Number 07 July 2019

Research Paper

Climate Change & Emerging Health Care Issues in India Dr. Monika Mathur Department of Economics, School of Humanities & Social Sciences, Manipal University Jaipur, India

Received: 14 June Revised: 22 June Published: 02 July

Abstract

The impact of climate change has started being felt from long time now and future projections represent an unacceptably high and potentially calamitous risk to human health all over the world. Studies have revealed that India is getting severely effected due to global warming. Climate change affects the health of people due to change in disease patterns as well. This article explores the increasing need of health care expenditure due to increasing impact of climate change on human health. In India, per capita health expenditure is low and moreover, approximately 72% of it is out of pocket. This article explores the impact of climate change on human health, specifically change in disease patterns and number of death caused due to it. It studies increasing episodes of diseases due to climate change and an urgent need to allocate more resources to health infrastructure for prevention of chronic diseases as well as new diseases patterns arising due to change in global temperature and lifestyle.

Keywords: Climate change, health expenditure, morbidity, diseases.

JEL Classification: C33, H51, I12, H75

Health Care & Climate Change

Climate change may be considered to be one of the main challenges of Sustainable Development in present scenario. The Sustainable Development Goal 13 speaks largely of taking correcting steps to limit rising temperatures as well as improving the changes already brought about. In the 2030 Agenda for Sustainable Development, Member States express their commitment to protect the planet from degradation and take urgent action on climate change as well as the Agenda also identifies, in its paragraph 14, climate change as 'one of the greatest challenges of our time' (United Nations, 2015). This is being observed at the global level as with countries are experiencing changes in rainfall, more floods, droughts, intense rain, more frequent heat waves & shifting climate patterns.

Impact on human health can be seen as one of the most important impacts of climate changes happening all over the globe. It is pertinent to mention here that SDG 3 focuses on Universal Health Care and SDG Target 3.8 commits all countries to work towards the achieving of UHC by ensuring access by all to quality essential health-care services, and to safe, effective and affordable medicines and vaccines. (Organization, 2018). The effect on health can be better understood by understanding determinants of climate change. The ambition of development and increasing industrialization & urbanization has led to increasing emission of GHGs and at the same time there is rising deforestation due to which the impact of GHGs increases even more. Industrialized countries owe their current prosperity to years of 'historical' emissions, which have accumulated in the atmosphere since the start of the industrial revolution (Narain, Ghosh, Saxena, Parikh, & Soni, 2009). Though Kyoto protocol in 1997, tried to limit the emission of Green House Gases, there has been a constant war between the developed and developing countries as both the sides are blaming each other for increase environmental concerns &



International Winter School-Manipal University Jaipur [IWSMUJ]-2022

[Hybrid Mode]



Course/Project Overview

Name of Course- Climate change and sun studies for field work

Name of instructor: Mr Sagar Gupta & Dr Tejbahadur Session: Jan.-Feb. 2022 Language of instruction: English Number of contact hours: 36 Credit awarded: 03

Objective of Course/Project- The student will be able to

- 1. Interpretate emission at household and industry level
- 2. Design and develop tailored sun study data for miscellaneous work.
- 3. To develop carbon emission inventory for field studies.

Syllabus: introduction to solar radiation studies, climate change. introduction to IPCC, Types of GHG gasses, measurements of carbon emission.

Organization of Course

Total conta	ct hrs 36	
1st week:	10 hrs (classes)	2 hrs (self-study/project)
2nd week:	10 hrs (classes)	2 hrs (Mid-term exam/assessment/discussion)
3rd week:	10 hrs (classes)	2 hrs
	6 hrs	2hrs
4 th week:	(Classes)	(End term exam)

Mode of lectures: Hybrid mode lecture/videos/case study/ discussion/ workshop/ hands-on



Course/Project Plan

Lecture no.	Торіс	Lecture mode	Instructor
L: 1-3	Basic concepts of sun studies	power point presentation	Dr Tej Bahadur
L: 4-5	Solar observatory studies at Jaipur city	field visit	Dr Tej Bahadur & Mr Sagar Gupta
L: 6-7	Climate change and the environment	power point presentation	Mr sagar Gupta
L: 8-9	Introduction to IPCC	powerpoint presentation	Dr Tej Bahadur & Mr sagar
L: 10-11	field visit to stp for understanding emissions	field visit	Dr Tej Bahadur & Mr sagar
L:12-13	Household carbon emission calculation	power point	Mr sagar Gupta
L:14-15	Household carbon emission calculation	power point	Mr sagar Gupta
L: 15-19	field based assignment for data collection of industry carbon emission	field	Dr Tej & Mr Sagar Gupta
L:20-21	Assessment of the GHG emission	Group exe	Dr Tej & Mr Sagar Gupta
L: 22-25	Assessment of the GHG emission	Group exe	Dr Tej & Mr Sagar Gupta
L: 26-30	Preparation of report on the field assignment	PowerPoint	Dr Tej & Mr Sagar Gupta
L: 31-34	Preparation of report on the field assignment	PowerPoint	Dr Tej & Mr Sagar Gupta
L: 35-36	Wrap up	Chalk & board	Dr Tej & Mr Sagar Gupta



Brief profile of the instructor

Mr Sagar Gupta is Assistant Professor (Sr.Scale) in the department of Civil Engineering. He has 8 years of experience in teaching and research. His qualification involves B.Tech and M.Tech Degree in civil engineering, Graduate Professional Diploma in sanitation (IHE Delft), Post-graduation certification in leadership in Public Health (MAHE), University Teaching Qualification, Netherlands, He is also pursuing his PhD from MUJ. He has been recipient of BMGF fellowship in sanitation(2018-19) in MSc sanitation Training of Trainers(ToT) Programme at IHE Delft. He is core committee member of IWA India chapter and a young water professional. Also, reviewer for SCOPUS index journals.





Dr. Tej Bahadur is working as Associate Professor in the Department of Civil Engineering, Faculty of Engineering, Manipal University Jaipur. He completed his Ph.D. in Sedimentary Geology from the University of Rajasthan, Jaipur in 2004. He is the subject expert of Sedimentology, Carbonate Petrography, Stratigraphy, Palaeoecology, Underground Coal Gasification, and Sun Dial Studies.

Contents lists available at ScienceDirect



International Journal of Biological Macromolecules

journal homepage: www.elsevier.com/locate/ijbiomac



A comparative *in silico* study to detect the effect of food-additives on metabolic protein and its perturbations compensated by osmolytes

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ARTICLE INFO

Keywords: Molecular docking Dynamics Food additives Osmolytes Metabolic proteins

ABSTRACT

Since its inception, food additive has been an integral part of the food processing industry with various commercial roles. Besides its advantages, various studies have already highlighted its long-term adverse effects on human health. However, in terms of protein structures and functions, the innate mechanism that triggers these effects has not been elucidated in previously reported studies. Our work takes an *in silico* approach to delve into structural implications resulting from these additives with three well studied metabolic proteins-lysozyme, bovine serum albumin (BSA) and ribonuclease A. Three classes of food additives- synthetic color, preservatives, and phosphate-containing, are taken here to understand their effects on the aforementioned metabolic proteins. Conventional molecular docking and dynamics (MD) studies reveal that these additives induce significant structural perturbations. Among them, carmoisine brings about the most secondary structural changes for lysozyme and ribonuclease A, whereas sodium tripolyphosphate affects BSA the most. To restore the secondary structural loss, we further examine the roles of osmolytes through cross-docking and higher timescale MD simulations. These studies unravel that application of osmolytes like raffinose and trehalose triggers structural restoration for BSA, lysozyme and ribonuclease A, and highlight their roles as co-formulants to alleviate the adverse effects of food additives.

1. Introduction

For the last two decades, food additives have been used on daily basis in the form of synthetic colors, taste enhancers, and preservatives. They are the most common in fast and processed food. For the pace of consumer's point of view, to make it more appealing, the concentration of food additives used in the preparation and processing of food is getting beyond the limit of acceptable daily intake (ADI) [1].

Calcium phosphate and aluminium phosphate are used as enhancers, preservatives, acidifying agents, acidity buffers, chemical leavening of baked goods and emulsifying agents of various foodstuffs. The maximum acceptable daily intake (ADI) value of calcium phosphate and aluminium phosphate proposed by the Joint FAO/WHO Expert Committee on Food Additives (JECFA) is 70 mg/kg BW (body weight) and 7 mg/kg BW/week to 1 mg/kg BW/week, respectively [1]. The protein-rich foods mainly contain organic phosphate esters that slowly break down in the gastrointestinal tract and then resorbed from the intestine.

However, the industrially processed foods have contained much higher phosphates than natural foods. Excessive intake of calcium phosphate in foodstuffs leads to muscle and skin atrophy, the progression of chronic renal failure, and cardiovascular calcifications [2]. In the Chronic Renal Insufficiency Cohort Study, it was studied in the USA patients; the renal failure rate was increasing over time with increasing serum phosphate concentration above 1.45 mmol/L and increasing the risk of hyperphosphatemia [2]. On the other hand, excess aluminium phosphate impairs the calcium and phosphorous uptake by the body and leads to osteoporosis, Parkinson's and Alzheimer's disease [3]. Sodium metaphosphate, a high-molecular-weight sodium polyphosphate, is composed of cyclic sodium metaphosphate with rings of alternating phosphorus and oxygen atoms. Furthermore, sodium hexametaphosphate, which is used in foods as a curing agent, dough strengthener, emulsifier and flavour enhancer has been found to be acting as severe irritant in rabbits. Nevertheless, adverse effects of dietary phosphates showed the incidences of hypocalcemia, hyperparathyroidism, and bone

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https://doi.org/10.1016/j.ijbiomac.2022.06.152

Received 6 April 2022; Received in revised form 15 June 2022; Accepted 23 June 2022 Available online 30 June 2022 0141-8130/© 2022 Elsevier B.V. All rights reserved. resorption in male Sprague-Dawley rats, B7D2F1 Bar Harbour mice, and adult dogs as compared to animals of the control groups [4,5].

Another group of food additives is synthetic food colors that are frequently used in the food industry. Sunset yellow (SY) is an azo dye, used as synthetic food color at high concentrations in beverages, chocolates, colored rice, saffron and fruit juice, ice cream, sauces, seasonings, etc. The maximum acceptable daily intake (ADI) value of sunset yellow by the JECFA is 0-4 mg/kg BW [6]. Other food colors like carmoisine, acid red, quinoline, etc. have been linked with severe liver damage, gastric upsets, diarrhea, vomiting, urticaria, asthma, and anaphylaxis of abnormal immune responses [6-9]. Various studies have also suggested that food colors at near or higher ADI limits establish a favorable interaction with the residues of essential proteins that lead to misfolding and adversely affect biochemical and physiological processes of vital organs, such as the liver and kidney [10,11]. Persistent use of food additives has been contributing to bioaccumulation that is causing deleterious effects on biological macromolecules such as blood proteins (BSA, lysozyme) and other proteins such as RNase-A (ribonuclease-A) found in the kidney and liver [10-12]. Interaction of food additives actually might lead to perturbed structural and functional aspects of proteins resulting in various diseases [12-14]. So far, very limited numbers of studies have been carried out with respect to the effect of food additives on biological proteins. No systematic work has been carried out on the effect of food additives (within or beyond the ADI limit) on the physiologically important model proteins like RNase-A, BSA, and lysozyme.

In this study, lysozyme, BSA, and RNase-A have been selected as these proteins are well studied and have key enzymatic physiological and pharmaceutical functions. Lysozyme, occasionally called as muramidase, is found in both the animal and plant kingdoms [15]. Among mammals, it is abundant in blood, liver, kidney, phagocytes including macrophages, neutrophils and dendritic cells [16]. In the kidney tubules, enzymes like lysozyme are involved in the biotransformation of varied compounds [16,17]. Laterally, the ligands like food additives undergo proteolytic or hydrolytic effects through the endocytosis process and transformed chemicals may be excreted through the urine or it may recede into the renal venous loop [17]. On the other hand, bovine serum albumin (BSA) is the main circulating blood protein. It is also known to be a transporter protein and it binds many essential ligands such as cations, fatty acids, hormones, vitamin D, etc. It maintains the oncotic pressure of blood and regulates blood coagulation [18]. Furthermore, RNase-A also known as pancreatic ribonuclease A is an enzyme that catalyzes the maturation of RNA molecules such as messenger RNAs and non-coding RNAs which have varied roles in cellular processes. It acts as the first defense against RNA viruses for host defense mechanism and plays an important role in angiogenesis and digestion processes [19]. Thus, in our in silico studies, these proteins have been subjected to the aforementioned classes of food additives, which provide molecular insights into their effects on the structural and functional aspects of lysozyme, BSA, and RNase-A.

Moreover, these additives are more likely to affect the structural and functional properties of the proteins that will impede the crucial functions of essential biological processes [20,21]. Some strategies have been employed to stabilize the proteins against unfavorable binding interactions with the food additives. Uses of osmolytes, organic solvents, and enzyme immobilization on suitable carriers have shown an enhancement in proteins and enzymes' activity as well as stability [22,23]. Osmolytes are normally found in the living organism in higher concentrations to combat various environmental stresses such as temperature, pH, and other osmotic imbalances [22,23]. These osmolytes, also known as compatible osmolytes and are classified into four groups such as polyols, sugars, methylamines, and their derivatives [24,25]. The mechanism of stabilization of osmolytes is driven by the preferential hydration mechanism where osmolytes are excluded from the surface of the proteins and in turn increase the hydration layer of the proteins. As a result, the protein is folded into a more compact tertiary and secondary

structure with the formation of more intramolecular hydrogen bonding within the polypeptides chain and in turn, it helps the protein in a more reduced surface area in which the free energy is minimized [22,26,27].

The present study employs the roles of various classes of osmolytes on the highest affinity of food additives on the protein to understand the molecular interactions among food additives, osmolytes and the protein.

2. Materials and methods

2.1. Protein preparation

Three-dimensional (3D) structures of bovine serum albumin (BSA) (PDB ID: 3V03), lysozyme (PDB ID: 1DPX) and ribonuclease A (PDB ID: 1FS3) were retrieved from protein data bank (PDB). The extracted structures had few missing information on connectivity, bond orders and formal charges, as well as lacked hydrogen atoms. Therefore, to prepare the retrieved structures for further computational studies, protein preparation wizard of Schrodinger suite was used, wherein the bond orders were assigned to the protein, along with hydrogen addition, metal treatment and removal of water molecules hetero-groups beyond 5 Å. Hydrogens were then optimized using exhaustive sampling option and the protein was minimized to RMSD limit from the starting structure of 0.3 Å using the Impref module of Impact with OPLS force field (Schrodinger, LLC, New York, 2020).

2.2. SiteMap analysis of the metabolic proteins

Prior to the molecular docking analysis, the generic metabolic proteins were subjected to SiteMap (Sitemap, Schrödinger, LLC, New York, NY, 2020) analysis to identify their putative binding sites. The top ranked binding pocket for each protein was finalized on the basis of SiteMap score, which was calculated using the criteria like volume, ratio between hydrophobic and hydrophilic residues, exposure to solvent, and degree to which ligand might donate or accept hydrogen bonds. Subsequent docking studies were performed by targeting these top-ranked selected pockets with the food additive molecules [28].

2.3. Ligand-directed conventional molecular docking

Binding affinity of the different classes of food additives with metabolic proteins, were assessed using two independent molecular docking studies involving GLIDE and AutoDock Vina [29,30]. Molecular structures of a total of 15 food additives were retrieved from Pubchem [31]. Sodium aluminium phosphate (Pubchem ID: 72941495), dicalcium phosphate (Pubchem ID: 21862903), sodium hexametaphosphate (Pubchem ID: 56846408), disodium phosphate (Pubchem ID: 24203), sodium tripolyphosphate (Pubchem ID: 24455), carmoisine (Pubchem ID: 19118), sunset yellow (Pubchem ID: 17730), tartrazine (Pubchem ID: 164825), quinoline yellow (Pubchem ID: 131752638), bisphenol A (Pubchem ID: 6623), MSG (Pubchem ID: 23672308), gluconate (Pubchem ID: 10690), and gluconolactone (Pubchem ID: 7027) were used for targeted docking studies.

The pre-docking preparation of the retrieved molecules was carried out using the LigPrep module of Schrodinger suite [32]. The structures were energy minimized, expanded to protonation and tautomer and conformations were generated by the Monte Carlo method as implemented in Macro Model, using OPLS-2005 force field. The generated conformers were subsequently minimized using truncated Newton conjugate gradient (TNCG) minimization up to 500 iterations. The conformers with an energy difference of 30 kcal/mol as compared to the global energy minimum conformer were retained. The conformational searches were carried out for aqueous solution using the generalized born/solvent accessible surface (GB/SA) continuum solvation model, and the resultant structures were accumulated in a library prior to the docking processes.

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For both GLIDE and Autodock Vina, the Emodel scoring function was used to select among the best protein-ligand complexes for a given molecule and the score was used to rank-order compounds to separate compounds that bind strongly (actives) from those that don't (inactives). This scoring function primarily took account for the physics of the binding process including a lipophilic-lipophilic term, hydrogen bond terms, a rotatable bond penalty, contributions from protein-ligand coulomb-vdW energies and hydrophobic enclosure terms. The docked complex was accordingly ranked on the basis of the score and the topranked were subjected to molecular dynamics (MD) simulation [33].

2.4. Cross-docking studies using osmolytes

Cross-docking analysis was executed for those protein-ligand complexes, which had shown the highest structural perturbations after the MD simulation studies (protocols described in the next section). Using X-GLIDE tool in Schrodinger, osmolytes like trimethylamine oxide (Pubchem ID: 1145), betaine (Pubchem ID: 247), glucose (Pubchem ID: 5793), trehalose (Pubchem ID: 7427), raffinose (Pubchem ID: 439242), D-sorbitol (Pubchem ID: 5780), and proline were forcefully docked into the binding pockets occupied by the food additives in the complexes and then given for MD run to analyse the extent of water-bridge interactions between the additives and protein [34].

2.5. MD simulation analysis of the top-ranked complexes

The best ranked complexes shortlisted from the conventional and cross-docking analyses were given for MD simulation run using Desmond (Desmond, Schrödinger, LLC, New York, NY, 2020) where OPLS4e (Optimized Potentials for Liquid Simulations Version 4e) force field was used to generate topology and parameter files [35,36]. Each complex was surrounded by a cubic box of TIP3P water molecules with the nearest distance from the complex to the box boundary being no more than 10 Å [37]. The generated systems were subsequently neutralized (net charge was brought to zero) by adding adequate number of positive (Na⁺) and negative (Cl⁻) ions. Each system underwent one round of steepest- descent minimization, followed by one round of conjugated gradient for 5000 picoseconds (ps) [38]. The systems were then equilibrated in NVT (constant number of particles, volume, and temperature) and NPT (constant number of particles, pressure, and temperature) ensembles with two sets of restrained NVT (for 24 ps and 2000 ps respectively) and one set of restrained (for 24 ps) and unrestrained (for 5000 ps) NPT each [39]. During equilibration, LINCS (LINear Constraint Solver) constraint algorithm was used to apply position restraining force on all the atomic bonds present in the systems [40]. The conventional docking systems were subjected to final MD production for 100 ns, where three replica runs for each conventional docking system were executed. On the other hand, the systems for cross-docking complexes were simulated for 1000 nanoseconds (ns) under no-restrained NPT ensemble and repeated twice more for each system. For all the systems,

Table 1

List of autodock and glide scores of different food dyes with BSA, lysozyme and ribonuclease A.

Protein	Autodock	Autodock											Glide				
	Additives	Binding energy (kcal/ mol)	Ligand efficiency	Inhibition constant	Inter- mol. energy (kcal/ mol)	Vander Waals energy (kcal/ mol)	Electrostatic energy (kcal/ mol)	Total energy (kcal/ mol)	H-bond forming residues	XP G score	∆G bind (kcal∕ mol)	Glide Vander Waals energy (kcal/ mol)	XP H- bond				
BSA (3V03)	Carmoisine	-8.9	-0.29	301.67 (nM)	-10.39	-8.73	-1.66	-0.02	Lys431	-6.31	2.68	-21.50	-1.58				
	Sunset yellow	-8.82	-0.33	345.11 (nM)	-10.31	-8.27	-2.03	-0.01	Arg435, Tyr147, Lys431, Glu424	-5.30	-37.77	-37.65	0				
	Tartarizine	-8.0	-0.26	1.38 (uM)	-9.79	-8.22	-1.56	0.7	Tvr147	-4.28	-12.78	-36.28	-0.03				
	Quinoline yellow WS	-7.28	-0.35	4.62 (µM)	-7.58	-7.53	-0.04	-0.03	Ser192	-5.41	-27.79	-33.47	-0.01				
	Acid red	No interactions with BSA															
	Direct blue	No interactions with BSA															
Lysozyme (1dpx)	Carmoisine	-8.33	-0.27	786.72 (nM)	-9.82	-8.56	-1.26	-0.31	Arg114, Glu35	-3.25	-27.06	-33.98	-1.078				
	Sunset yellow	-8.35	-0.31	755.06 (nM)	-9.84	-8.23	-1.62	-0.04	Asn59, Arg114	1.73	-22.04	-32.71	-0.9				
	Tartarizine	-6.6	-0.21	14.42 (μM)	-8.39	-6.84	-1.55	0.17	Arg114	-2.57	-21.02	-33.43	-0.952				
	Quinoline yellow WS	-6.62	-0.32	14.13 (μM)	-6.91	-7.14	0.23	-0.27	Asp52	-1.46	-18.31	-27.76	-0.54				
	Acid red	-7.87	-0.25	1.71 (µM)	-9.66	-8.34	-1.32	-0.12	Arg 114	-2.87	-24.54	-2.41	-0.7				
	Direct blue	No intera	ctions with lys	ozyme					-								
RNaseA (1fs3)	Carmoisine	-10.39	-0.34	24.2 nM	-11.88	-8.08	-3.8	-0.02	Lys 41, Lys 66	-3.72	-40.71	-27.70	-1.6				
	Sunset yellow	-9.75	-0.36	71.18 (nM)	-11.24	-8.24	-3.0	-0.27	Arg39(2) Arg85, Phe120 (2)	-5.91	-32.77	-27.18	-3.275				
	Tartrazine	-10.05	-0.32	43.18 (nM)	-11.84	-7.31	-4.52	0.17	Ser123, Lys41, Lys7, Lys66	-3.01	-34.39	-29.97	-2.233				
	Quinoline yellow WS	-7.04	-0.34	6.86 (µM)	-7.34	-7.32	-0.03	-0.15	His12, Phe120	-3.48	-13.72	-24.34	-0.402				
	Acid red	-9.63	-0.31	86.5 (nM)	-11.43	-9.22	-2.21	0.11	Thr45, Lys7	-3.13	-41.02	-2.07	-1.6				
	Direct blue	No intera	ctions with RN	laseA													

the final temperature was kept at 300 K. Post-simulation all the MD simulation data analysis were carried using MD simulation analysis tools available in Desmond and Maestro platform (Desmond and Maestro, Schrödinger, LLC, New York, NY, 2020).

3. Results

3.1. Docking analysis of food dyes and additive molecules with generic proteins

BSA, lysozyme and ribonuclease A were subjected to docking using autodock and glide in presence of three groups of molecules that include food dyes, phosphate containing additives, and other food additives. Among the group of food dyes, carmoisine generated the highest docking scores with all the three proteins (Table 1 and Fig. 1A). Ligand docking of carmoisine with BSA, lysozyme, and ribonuclease A generated top scores of -8.9 kcal/mol, -8.33 kcal/mol, and -10.39 kcal/ mol, respectively (Table 1). In case of phosphate-containing additives, sodium-tripolyphosphate showed the best docking scores with BSA (-5.6 kcal/mol), lysozyme (-5.48 kcal/mol) and ribonuclease A (-8.63 kcal/mol) (Table 2 and Fig. 1B). Among the other additives, bisphenol generated highest scores with BSA (-6.21 kcal/mol), lysozyme (-6.56 kcal/mol), and ribonuclease A (-5.14 kcal/mol) proteins (Table 3 and Fig. 1C). The high glide score indicated a high binding affinity towards the target. We checked for the following interactions,



hydrogen bonds, salt bridges, halogen bonds, aromatic bonds, pi-cation, and also pi-pi interactions all of which contribute towards the stability of the protein-ligand complexes. These compounds interacted with the target proteins by forming hydrogen bonds, and hydrophobic interactions with the active site residues shown in Figs. S1, S2 and S3.

3.2. Effect of carmoisine on BSA, lysozyme and ribonuclease A

The top ranked carmoisine-BSA complex was then given for molecular dynamics (MD) simulation studies using Desmond (Schrodinger 2020, NY, LLC) for 100 ns, where the interaction fractions were generated to identify the critical amino acids binding with the carmoisine molecule. Interaction fraction analysis revealed that apart from forming intermolecular H-bonds with adjacent water molecules (eight H₂O molecules), carmoisine also forms intramolecular H-bonds with Arg208, Lys211 and Lys350 (Fig. S4). Moreover, it also forms water-mediated interactions with Phe205, Ala209, Thr235 and Glu353 residues as well as hydrophobic interactions with Ala212, Val215, Val234, Lys322, Leu346 and Ala349 residues (Fig. S4). The effect of these interactions was further analysed using RMSD study that showed slight deviation of 0.3 Å for the bound complex (average RMSD: 3.4 Å) when compared with the unbound (average RMSD: 3.1 Å) one (Figs. 2A, and S5-S8). Secondary structural analysis did not show any significant loss or gain of structure, however at amino acid number 500, there has been a slight gain of the alpha helical structure for the carmoisine complex (Fig. 2B).







Fig. 1. Comparative analysis of molecular docking scores of the food additives with BSA, lysozyme and ribonuclease A proteins. Glide and AutoDock scores of A) food dyes B) phosphate-containing C) other preservatives are represented through bar graphs where, blue, maroon and green indicates BSA, lysozyme and ribonuclease A, respectively. Each triplet group of bars shows the scores (dock represents AutoDock scores and Glide represents glide scores) of individual additive bound to all the three proteins.

Table 2
List of autodock and glide scores of different phosphate-containing additives with BSA, lysozyme and ribonuclease A.

Protein	Autodock									Glide			
	Additives	Binding energy (kcal/mol)	Ligand efficiency	Inhibition constant	Inter-mol. energy (kcal/mol)	Van der Waals energy (kcal/mol)	Electrostatic energy (kcal/ mol)	Total energy (kcal/mol)	H-bond forming residues	XP G score	∆G bind (kcal∕ mol)	Glide Van der Waals energy (kcal/mol)	XP H- bond
BSA (3V03)	Sodium aluminium phosphate	-3.69	-0.74	1.97 (mM)	-4.29	-2.94	-1.35	0.06	Ser191, Arg198	-5.97	4.62	-3.48	-3.66
	Dicalcium phosphate	-3.69	-0.74	1.98 (mM)	-4.28	-2.95	-1.33	0.06	Ser191, Arg198	-5.98	4.64	-3.47	-3.67
	Sodium hexametaphosphate (calgon)	-5.04	-0.21	201.52 (µM)	-5.04	-3.11	-1.93	0.0	Lys294, Val342, Arg217	-0.32	32.8	-20.35	-1.39
	Disodium phosphate	-3.69	-0.74	1.99 (mM)	-4.28	-2.98	-1.31	0.06	Ser191, Arg198, Arg194	-4.27	4.61	-7.84	-2.92
	Sodium tripolyphosphate	-5.6	-0.43	78.26 (µM)	-7.39	-4.15	-3.24	2.36	Glu291, Trp213, Arg198, Asp450, Arg217	-4.81	8.66	-9.24	-3.31
Lysozyme (1dpx)	Sodium aluminium phosphate	-2.96	-0.59	6.78 (mM)	-3.56	-2.17	-1.39	0.09	Ile88, Ser86	-2.66	-1.82	-3.90	-0.83
· • ·	Dicalcium phosphate	-4.17	-0.83	878.36 (µM)	-4.77	-3.64	-1.12	0.09	Gly102, Gly104, Arg21, Val99	-2.82	-0.83	-2.70	-0.83
	Sodium hexametaphosphate (calgon)	-2.7	-0.11	10.42 (mM)	-2.7	-2.06	-0.65	0.0	Trp62	-1.83	-9.78	-5.76	-0.73
	Disodium phosphate	-4.17	-0.83	878.44 (µM)	-4.77	-3.66	-1.11	0.09	Gly104, Arg21, Gly102, Val99	-3.96	2.74	-5.80	-1.07
	Sodium tripolyphosphate	-4.17	-0.32	873.98 (µM)	-5.96	-2.9	-3.06	2.23	Cys76, Asn93	-5.48	-13.26	-3.78	-2.25
RNase A (1fs3)	Sodium aluminium phosphate	-4.12	-0.82	962.03 (µM)	-4.71	-3.15	-1.15	0.05	Phe120, His12, His119	-3.50	-7.93	-1.76	-1.02
	Dicalcium phosphate	-4.13	-0.83	942.01 (µM)	-4.72	-3.14	-1.59	0.06	His12, His119, Phe120	-3.72	-7.92	-1.39	-1.19
	Sodium hexametaphosphate (calgon)	-10.83	-0.45	11.48 (nM)	-10.83	-3.26	-7.57	0.0	Lys7, Arg39, Gln11, His12	-6.23	-27.3	-8.91	-2.53
	Disodium phosphate	-4.17	-0.83	870.43 (μM)	-4.77	-3.41	-1.36	0.1	Arg39, Asp38	-7.56	-14.9	-1.61	-3.09
	Sodium tripolyphosphate	-7.63	-0.59	2.55 (µM)	-9.42	-4.48	-4.94	1.68	Lys41, His119, Gln11, His12, Arg39	-8.63	-9.73	-2.21	-2.35

Table 3

List of autodock and glide scores of food additives with BSA, Lysozyme and Ribonuclease A.

Protein	Autodock											Glide score			
	Additives	Binding energy (kcal/ mol)	Ligand efficiency	Inhibition const	Inter- mol. energy (kcal/ mol)	Van der Waals energy (kcal/ mol)	Electrostatic energy (kcal/mol)	Total energy (kcal/ mol)	H-bond forming residues	XP G score	∆G bind (kcal∕ mol)	Glide Van der Waals energy (kcal/ mol)	XP H- bond		
BSA (3V03)	Bisphenol A MSG	$-6.18 \\ -4.8$	-0.36 -0.48	29.4 (μM) 304.3 (μM)	-7.08 -6.29	-6.99 -3.43	-0.99 -2.86	-0.47 -1.86	Glu424 Trp213, Arg217, Arg198	-6.21 -3.59	-33.49 -16.09	-28.69 -8.12	-0.64 -1.94		
	Gluconate	-3.52	-0.27	2.62 (mM)	-6.5	-5.17	-1.34	-2.76	Arg435, Lys431, Ser428	-6.55	-18.03	-11.31	-4.55		
	Gluconolactone No interaction with BSA														
Lysozyme (1dpx)	Bisphenol A	-6.56	-0.39	15.6 (μM)	-7.45	-7.34	-0.11	-0.18	Asn59, Asn103, Ile98	-4.35	-28.24	-22.05	-1.33		
	MSG	-4.88	-0.49	262.97 (μM)	-6.38	-4.64	-1.74	-1.67	Asn59, Val109, Asp52, Glu35, Gln57	-3.95	-11.20	-12.47	-1.54		
	Gluconate	-3.93	-0.3	1.31 (mM)	-6.92	-6.25	-0.67	-2.24	Trp63, Val109, Gln57, Glu35, Ala107	-8.39	-14.76	-9.91	-5.00		
	Gluconolactone	-5.69	-0.47	67.91 (uM)	-5.69	-5.67	-0.02	0.0	Asn59	-6.91	-35.49	-1.35	-3.33		
RNaseA (1fs3)	Bisphenol A	-5.14	-0.3	170.43 (μM)	-6.04	-5.7	-0.34	-0.43	Phe120	-3.68	-33.56	-21.28	-1.24		
(1153)	MSG	-5.8	-0.58	56.19 (μM)	-7.29	-3.67	-3.62	-1.63	Lys7, Lys41, Gln11	-3.26	-12.37	-8.92	-0.62		
	Gluconate	-2.89	-0.22	7.66 (mM)	-5.87	-4.26	-1.61	-4.11	Val118, Lys41, Lys7, Phe120	-8.21	-19.16	-11.46	-6.24		
	Gluconolactone	-5.16	-0.43	165.87 (μM)	-5.69	-4.92	-0.23	0.0	Lys7, His119	-6.98	-35.28	-0.89	-3.88		

Similar docking and MD simulation studies with lysozyme showed that carmoisine molecule forms intermolecular H-bond interactions with a number of water molecules (twelve H₂O molecules) and predominantly interacts with Arg112 (water-bridge) and Lys116 (H-bonds) (Fig. S9). Additionally, it forms H-bond interactions with Tyr23, Gly102, Asn103, Asn106, Asn113 and Arg114 (Fig. S9). Formation of these interactions resulted a significant RMSD deviation of the carmoisine-bound complex where the average RMSD of the bound complex (average RMSD: 2.5 Å) increased by 1.1 Å as compared to the unbound (average RMSD: 1.4 Å) one (Figs. 2C, and S10–S13). Secondary structural analysis also showed significant loss of alpha helical characteristics in the lysozyme-carmoisine complex after 120th residue of the lysozyme (Fig. 2D).

In case of ribonuclease A, the ligand fraction analysis identified Val43, Thr45, Lys66, Asp83, Cys84 and Phe120 residues as important ones that form various H-bonds, water-bridges and hydrophobic interactions (Fig. S14). Though the last frame of the ligand interaction showed strong H-bond interactions with Lys41, cumulative fractional studies over 100 nanoseconds (ns), showed aforementioned residues to be playing more important role in forming strong interaction between carmoisine and ribonuclease A (Fig. S14). Apart from that, the final frame also showed that carmoisine forms intermolecular H-bonds with eleven water molecules (Fig. S14). Although, RMSD analysis did not show any significant deviation of the bound complex from the unbound ribonuclease A (0.08 Å) (Figs. S15–S18), the secondary structural analysis revealed loss of beta-strand characteristics in the carmoisine bound complex (Figs. 2E and F). Total Secondary Structure Estimation

(SSE) percentage reduced from 44.4 % to 43.38 % where the significant beta-strand loss was observed at 100th amino acid residue (Fig. 2F).

3.3. Effect of sodium tripolyphosphate on BSA, lysozyme and ribonuclease A

For understanding the extent of structural interference exhibited by the phosphate-containing additives, sodium tripolyphosphate bound BSA, lysozyme and ribonuclease A complexes were subjected to MD simulation analysis for 100 ns. Interaction analysis with BSA suggested that tripolyphosphate forms H-bonds with eighteen water molecules in its vicinity during the MD run (Fig. S19). Moreover, majority of these water molecules are also responsible for formation of critical watermediated salt bridges with BSA residues like Arg198, Trp213, Arg217, Lys221, His241, Arg256, Ser286, Ala290, Glu291, and Tyr451. Besides forming water-bridges it forms H-bonds predominantly with Arg194, Arg198, Arg217, and Lys221 (Fig. S19). Though, a large number of intermolecular interactions was observed between BSA, and tripolyphosphate, overall RMSD mapping with the unbound BSA trajectories did not confer any significant deviation in the bound complex (Figs. 3A, and S20-S21). However, a reduction in the secondary structure characteristic was observed in BSA where the overall SSE percentage reduced by 0.49 % due to the significant loss of alpha-helical characteristics between 265 and 275 residues (Fig. 3B).

In case of lysozyme, the tripolyphosphate molecule interacts with 24 water molecules where it forms major water-bridges with Arg112, and Lys116 (Fig. S22). The same residues are also involved in the formation



Fig. 2. Effect of carmoisine on BSA, lysozyme and ribonuclease A secondary structures. Comparative root mean squared deviation (RMSD) and secondary structural elements plots are represented for unbound and carmoisine-bound BSA (A and B), lysozyme (C and D) and ribonuclease A (E and F). In RMSD plots (unbound - blue and bound - red) X-axis denotes MD simulation time in nanoseconds and Y-axis denotes RMSD values in Å. In secondary structure elements plot, X-axis denotes residue numbers and Y-axis denotes secondary structure percentage, where the helices and stands are represented in orange and blue, respectively.

of direct H-bonds with the ligand molecule (Fig. S22). These interactions brought significant RMSD disparity in the bound complex in comparison to the unbound lysozyme that revealed almost two-fold deviation in the MD trajectories. The average RMSD of the unbound lysozyme was 1.4 Å, which rose to 2.6 Å in case of the tripolyphosphate-bound lysozyme

(Figs. 3C, and S23–S24). In terms of total SSE percentage, the huge RMSD deviation did not result significant secondary characteristics loss, however, loss of alpha-helical characteristics after 120th residue was evident that was also observed in case of carmoisine binding discussed earlier (Fig. 3D).

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Fig. 3. Effect of sodium tripolyphosphate on BSA, lysozyme and ribonuclease A secondary structures. Comparative root mean squared deviation (RMSD) and secondary structural elements plots are represented for unbound and sodium tripolyphosphate-bound BSA (A and B), lysozyme (C and D) and ribonuclease A (E and F). In RMSD plots (unbound - blue and bound - red) X-axis denotes MD simulation time in nanoseconds and Y-axis denotes RMSD values in Å. In secondary structure elements plot, X-axis denotes residue numbers and Y-axis denotes secondary structure percentage, where the helices and stands are represented in orange and blue, respectively.

Interaction analysis of the tripolyphosphate ligand with ribonuclease A showed intermolecular H-bond formation with sixteen H₂O molecules that facilitated water-bridges with Arg10, Gln11, and Leu35 (Fig. S25). Moreover, direct intramolecular H-bond contacts were also observed

with Lys1, Lys7, Arg39, and Lys41 (Fig. S25). Comparative RMSD analysis with the unbound ribonuclease A showed an RMSD deviation of 0.7 Å, where the bound and unbound forms clocked average RMSDs of 2.9 Å, and 2.2 Å, respectively (Figs. 3E, and S26–S27). The total SSE

analysis further demonstrated secondary structure loss in the bound form where the SSE percentage reduced from 44.40 % to 43.46 % (Fig. 3F). Unsurprisingly, similar SSE percentage reduction was also seen in case of carmoisine-bound ribonuclease A.

3.4. Effect of bisphenol on BSA, lysozyme and ribonuclease A

Among the rest of the food additives, bisphenol generated the best docking scores, hence, the bisphenol bound complexes were given for



Fig. 4. Effect of bisphenol A on BSA, lysozyme and ribonuclease A secondary structures. Comparative root mean squared deviation (RMSD) and secondary structural elements plots are represented for unbound and bisphenol A-bound BSA (A and B), lysozyme (C and D) and ribonuclease A (E and F). In RMSD plots (unbound - blue and bound - red) X-axis denotes MD simulation time in nanoseconds and Y-axis denotes RMSD values in Å. In secondary structure elements plot, X-axis denotes residue numbers and Y-axis denotes secondary structure percentage, where the helices and stands are represented in orange and blue, respectively.

MD analysis. Interaction studies with BSA showed that bisphenol binds with two neighbouring water molecules, resulting water-bridge formation with Glu424 (Fig. S28). Moreover, it also formed strong H-bond with Glu186, and a moderately strong bond with Glu424. Apart from that, it showed several weak hydrophobic interactions Leu189, Ala193, Val432, Tyr451, Leu454, and Ile455 (Fig. S28). Comparative RMSD analysis, and SSE percentage study between unbound BSA and bisphenol-bound BSA did not result to any significant deviation or loss of secondary structures (Figs. 4A–B, and S29–S30).

Bisphenol binding with lysozyme showed involvement of two water molecules in formation of water-bridges with Arg73 and Asp101 (Fig. S31). A number of weak H-bond interactions were also observed with Trp63, Arg73, Leu75, Lys97, Ser100, Asp101, Gly102, and Asn103. In addition to that few hydrophobic interactions were also observed with Arg61, Trp62, and Leu75 (Fig. S31). These interactions might have resulted RMSD deviation for the bound complex (average RMSD 2.4 Å) when compared to the unbound lysozyme (average RMSD 1.4 Å) (Figs. 4C, and S32–S33). However, this RMSD deviation was not reflected in the SSE analysis unlike the carmoisine-bound or tripolyphosphate-bound lysozyme (Fig. 4D).

Similarly, in case of ribonuclease A, bisphenol binding did not bring about any significant RMSD disparity or SSE percentage changes (Figs. 4E, F, S34–S35). However, intermolecular H-bond formation with water molecules rose to five molecules from two as observed in the other two proteins. Furthermore, one strong H-bond contact with residue Thr45 was also seen along with several hydrophobic interaction formation with Val43, Lys66, Arg85, and Ala122 (Fig. S36).

3.5. Osmolytes restoring the secondary structures of the metabolic proteins

In presence of carmoisine, loss of secondary structures was evident in lysozyme, and ribonuclease A. On the other hand, BSA showed the highest structural perturbations in presence of sodium tripolyphosphate as evident from the aforementioned MD analyses. A number of studies had previously established the potential roles of osmolytes in stabilizing secondary structural elements in various proteins. At first, carmoisine bound lysozyme, and ribonuclease A complexes were subjected to crossdocking in presence of protective or compatible osmolytes [41] like sorbitol (polyol), glucose, trehalose, raffinose (sugars), proline (amino acid), betaine, and trimethylamine oxide (TMAO) (amino acid derivative). Among these osmolytes, raffinose generated the highest docking score of -9.505 kcal/mol, followed by trehalose (-8.505 kcal/mol), betaine (-7.23 kcal/mol), sorbitol (-6.5 kcal/mol), glucose (-6.447 kcal/mol), TMAO (-6.12 kcal/mol), and proline (-5.423 kcal/mol) when bound to lysozyme. In case of ribonuclease A, raffinose exhibited the highest docking score of 9.049 kcal/mol, followed by trehalose (-7.892 kcal/mol), sorbitol (-6.032 kcal/mol), betaine (-5.222 kcal/ mol), glucose (-4.849 kcal/mol), proline (-4.273 kcal/mol), and TMAO (-2.019 kcal/mol). Since tripolyphosphate binding with BSA resulted higher structural anomaly in comparison to carmoisine, and bisphenol A, BSA-tripolyphosphate complex was taken into consideration for cross-docking with the osmolytes. Cross-docking analyses revealed that raffinose demonstrated highest binding affinity of -10.243 kcal/mol, whereas trehalose (-7.919 kcal/mol), sorbitol (-5.362 kcal/mol), glucose (-5.038 kcal/mol), betaine (-3.924 kcal/ mol), proline (-3.362 kcal/mol), and TMAO (-3.199 kcal/mol) followed. For all the three metabolic proteins, raffinose, and trehalose showed the best docking scores, hence the bound complexes comprising these two osmolytes were chosen for further MD simulation of 1000 ns. The generated results from the MD simulation were analysed to dissect the potential roles of the osmolytes- raffinose, and trehalose in restoring the secondary structural integrity of the metabolic proteins, which were lost due to the presence of the additives. Secondary structural analysis showed increase in the total SSE percentage in lysozyme from 35.89 % (carmoisine bound) to 38.26 %, and 37.15 % in presence of raffinose,

and trehalose, respectively (Fig. 5A). Similarly, ribonuclease A also indicated elevated SSE% from 43.38 (carmoisine bound) to 45.26, and 44.41, when bound to raffinose, and trehalose, respectively (Fig. 5B). In case of BSA, the trend was similar as it experienced secondary structural restoration in presence of raffinose and trehalose (SSE% increasing to 66.28, and 65.88, respectively) in comparison to sodium tripolyphosphate bound one (SSE% of 64.71) (Fig. 5C).

Furthermore, in lysozyme, where residues 112–116 (away from the active site) were forming interactions with carmoisine (as shown in Fig. S5) did not show similar interactions in presence of osmolytes like trehalose. When bound to trehalose, one of the lysozyme's active site residues, namely Asp52 [42] showed the highest percentage of interactions and also found to be conserved across species (Figs. S37-S38). Similarly in case of ribonuclease A, the active site residues (His12 His119 and Lys41) [43] were not involved in forming interactions (refer to Fig. S6) with carmoisine, whereas in bound form with raffinose (one of the osmolytes), the interaction percentages for His119 and Lys41 increased considerably (Figs. S39-S40). On the other hand, BSA, which contains two binding sites - Site I (Ala209, Trp213, and Asp450) [44] and Site II (Asn390) [45], did not observe any of its binding site residues to form interaction when bound to sodium tripolyphosphate (as observed in Fig. S7). However, raffinose exhibited interactions with the site I residues, where Asp450 had very high percentage of interactions (Figs. S41-S42).

To further understand the role of these osmolytes in providing structural stability to the metabolic proteins, radial distribution function (RDF) analyses of the osmolyte molecules were performed using 1000 ns MD simulation trajectories. Osmolytes are generally known for aggregating solvent molecules around the protein's structures, inducing improved surrounding solution and effectuating protein folding and structural re-integration [41,46]. In this case, RDF analyses were carried out to calculate probability or number of water molecules at the vicinity of the particular osmolyte or additive. The sodium tripolyphosphate bound BSA, which had maximum solvent molecules probability of 0.48 at 12 Å distance from the binding pocket, showed an increase in probability of 0.55 and 0.73 when bound to trehalose and raffinose (Fig. 6A). Along with probability, absolute number of solvent molecules also increased around the ligand binding pocket of BSA (249 \pm 3 in case of tripolyphosphate binding) amounting to 324 \pm 4 and 489 \pm 2 in presence of raffinose and trehalose, respectively (Figs. 6B and S43). Lysozvme structure also exhibited a similar aggregation of solvents in presence of raffinose and trehalose as the absolute water molecule numbers and probability reached as high as 580 ± 2 and 0.9 (in case of raffinose), while with carmoisine the number and probability were 253 \pm 7 and 0.45 respectively (Fig. 6C, D and S44). In addition, raffinose and trehalose binding with ribonuclease A, further demonstrated accumulation of solvent molecules (540 \pm 2 and 395 \pm 4), in respect to the carmoisine bound complex (344 \pm 2 solvent molecules); nonetheless the probability also increased considerably in presence of osmolytes (Fig. 6E, F and S45). Thus, secondary structure and RDF analyses further indicates that osmolytes, especially higher-order sugars like raffinose and trehalose can potentially stabilize metabolic proteins' structures and subsequently restore their functioning if used as co-formulant with existing food additives.

4. Discussion

At native folded state, proteins tend to maintain their structural integrity and in turn physiological functioning. However, structural denaturation effect rendered by external molecules such as food additives, dyes and preservatives might results in structural perturbation of these proteins [47–49]. With prolonged exposure, the accumulated protein dysfunction can hamper crucial cellular networks and pathways leading to serious health problems and diseases [47–49]. Although, a number of studies have previously delineated the adverse effects of these synthetic compounds on human health, structural elaboration of how



Residue number

Residue number





Fig. 5. Secondary structural restoration analysis of BSA, lysozyme and ribonuclease A in presence raffinose and trehalose. Secondary structure percentage (Y-axis) is plotted against residue numbers (X-axis) for A) lysozyme, B) ribonuclease A and C) BSA showing the helices in orange and strands in blue.

these molecules affect protein stability has still remained elusive. To understand the structural implications of these compounds, our study first segregated them into three categories: food dyes, phosphate containing additives and rest of the additives. Extensive series of comparative docking studies with three well studied proteins, *viz.*, BSA, lysozyme, and ribonuclease A, recognised three additives, namely, carmoisine, bisphenol and sodium tripolyphosphate, which showed the highest affinities with all the proteins. Further MD simulation analysis of these compound-bound complexes unraveled that these additives concurred significant structural perturbations in BSA, lysozyme and ribonuclease A. More importantly, the effect of carmoisine on the structure of lysozyme was found to be the highest in terms of loss of secondary structure in lysozyme, followed by ribonuclease A. On the other hand, although, carmoisine did not trigger much structural abnormality, it was sodium tripolyphosphate that demonstrated significant structural perturbations in BSA. To compensate this secondary structure



Fig. 6. Radial distribution function (RDF) analysis of the solvent molecules. Graphical representation of the RDF analysis for BSA (A and B), lysozyme (C and D) and ribonuclease A (E and F) in presence of raffinose (light pink), trehalose (deep blue) and sodium tripolyphosphate/carmoisine (light green). The X-axis denotes radius in Å to calculate the distance between the solvent molecules and the ligand (whether carmoisine, sodium tripolyphosphate, trehalose or raffinose), whereas the Y-axis denotes probability of solvent molecules near the ligands in A, C and E; as well as number of solvent molecules near the ligands in B, D and F.

loss, our next course of action was to introduce compatible or protective osmolytes to the additives-bound metabolic protein complexes. Compatible osmolytes are a diverse class of small solute accumulated by organisms to protect the cell macromolecules under different stress conditions [22,27]. Osmolytes like sorbitol, betaine, raffinose, glucose, trehalose, proline and trimethylamine oxide (TMAO) were selected from the four classes of osmolytes, namely polyols, sugars, amino acids and their derivatives [50]. Higher timescale MD simulation of the additivesbound metabolic protein complexes in presence of raffinose and trehalose (two of the osmolytes used in our study) further demonstrated recovery of the secondary structural characteristics for these proteins. Subsequently, the observations from the RDF analyses also confirmed that among the class of sugars, raffinose (trisaccharide) demonstrated highest impact on the refolding of the secondary elements for lysozyme, followed by trehalose (disaccharide) and glucose (monosaccharide). These results corroborate well with previous reports, which demonstrated that higher oligosaccharides with respect to sizes, follow the similar stabilizing effects on the proteins like RNase-A, Cytochrome C

and many more [51,52].

On the other hand, the accumulation of water molecules, as shown in the RDF analysis further substantiate previous experimental reports [53,54], which hypothesized that stabilizing osmolytes with respect to their increasing sizes are more excluded, and increase the hydration layer near the protein domain conducive to proper folding of the protein. Apart from the oligosaccharides, betaine and TMAO from amino acid derivatives class, sorbitol from polyols class and proline from amino acid class reflect different degree of exclusion from the protein domain, resulting in the differential solvation behavior with the peptide backbone that might induce effect on the stability of the protein, similar to the oligosaccharides [41]. In the case of applying these osmolytes in practice, cues can be taken from number of the reports about plant protection products (PPP), which utilizes an approach called coformulants to increase the bioavailability of active substances/proteins in the plant body [55,56]. Through cross-docking analysis of these osmolytes with food additives such as carmoisine and sodium tripolyphosphate, our study further shed light on possibilities of using them as co-formulants for enhancing protein structure stability and reducing the adverse effect of the food-additives.

Although, the future aspect of this work will be exhaustive *in vitro* biophysical and biochemical analysis that can validate the role of the aforesaid compounds on metabolic protein structures and subsequent role of osmolytes to compensate for the structural loss, this study pinpoint towards the differential role of various classes of osmolytes on protein structural properties. Nevertheless, knowledge regarding the utility of these osmolytes both as co-formulants or solitary compounds can act as an interesting starting point for the food additive industries to ensure the application of these compounds with higher efficacy and reduced harmful side-effects. Thus, along with underlying the severe side-effects of the different food additives on structure and function of stable proteins, this study is the first of its kind to also delineate co-formulation of additives with osmolytes to circumvent the adverse effects.

CRediT authorship contribution statement

NKP conceived and conceptualised the study. SD, NSK and NKP designed the relevant experiments. SD and NSK performed the experiments. SD, NSK and NKP analysed the data. SD, NSK, KB and NKP wrote the manuscript. All of the authors read, revised and approved the manuscript submitted for publication.

Declaration of competing interest

The authors declare that no competing interests exist.

Acknowledgements

Support by Enhanced Seed grant EF/2019-20/QE04-02 (to NKP) from Manipal University Jaipur, Rajasthan, India is gratefully acknowledged. The authors also thank ACTREC (Advanced Centre for Treatment, Research and Education in Cancer) for providing necessary infrastructures to conduct the experiments.

Funding information

The work was funded by ACTREC intramural fund and DBT National Women Bioscientist Award (BT/HRD/NWBA/37/01/2015). The work was also funded by Enhanced Seed grant EF/2019-20/QE04-02 (to NKP) of Manipal University Jaipur, Rajasthan.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.ijbiomac.2022.06.152.

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Mycorrhiza: An Ecofriendly Bio-Tool for Better Survival of Plants in Nature

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Abstract: Modern agriculture is currently enduring rapid changes in defiance of the continuing increase of the global population and the various consequent environmental challenges. Crop quality is becoming as important as crop yield and can be characterized by several parameters. Extensive use of chemical fertilizers leads to food safety concerns globally; hence, the use of mycorrhizal symbionts have proven to be beneficial for the sustainable growth of the agricultural cropping system. Microflora inhabiting the soil entails various ecological interactions which are associated with agricultural performances. Amongst these microflora, mycorrhizal fungi are the critical suppliers of nutrients, with restricted diffusion capacities of minerals such as phosphorus, nitrate, zinc, sulfur etc. Mycorrhizae are the obligatory biotrophs that depend upon their host plant for the nutritional requirements. They act as the key contributors to sustainable agro-ecological enforcement and impact globally on the eco-systemic processes. These soil inhabitants devote themselves to the continuous nutrient flow and extemporize resistance against various environmental stresses like drought, flood, metal toxicity, salinity, etc. This review briefly highlights the taxonomic co-evolution, factors affecting mycorrhizal behaviors (phytohormonal regulation), and the concise mechanistic approach (improved water status, photosystems, stomatal conductance, ionic uptake, C & N fixation) to combat various environmental stresses (biotic/abiotic). Plant growth regulators play a crucial role in this symbiotic establishment with the plant roots. Auxins, brassinosteroids, and strigolactones are responsible for the establishment of mycorrhizal association. On the other hand, ethylene, abscisic acid, and jasmonic acids can promote or downregulate this process in the plants. Whereas, gibberellic acids and salicylic acids negatively impact on mycorrhizal association. The hormonal homeostasis (in response to fungal associations) leads to the activation of transcriptional and signaling cascades which ensues various physio-morphological changes for the benefit of the plant. The role of phytohormones in the regulation of plant-fungus mutualism, and the impact of mycorrhization on the activation of molecular and transcriptional cascades, have been described along with the potential applications of agricultural produce and soil rehabilitation.

Keywords: Mycorrhizae; phytohormones; biotic/abiotic stress; agricultural produce; soil rehabilitation

1. Introduction

Microbial interactions in the rhizosphere are crucial for nutrient recycling, plant growth, and biotic/abiotic stress reduction in forest and agricultural ecosystems. These interactions vary from one plant species to other, at both the inter and intra-specific scales [1]. Among the various microorganisms (bacteria & fungi) involved in the rhizospheric activities, mycorrhizal fungi exhibit the exceptional feature of dwelling partly inside as well as outside the plant roots. The term mycorrhizae comes from the Greek word 'mykes' and 'rhiza', meaning 'fungus' and 'root' respectively, which was first applied to the association of trees with fungal symbionts [2]. Mycorrhizal fungi, which are members of Glomeromycota, are common on the landscape and associate with over 80% of plants in a diversity of



Citation: Dhiman, M.; Sharma, L.; Kaushik, P.; Singh, A.; Sharma, M.M. Mycorrhiza: An Ecofriendly Bio-Tool for Better Survival of Plants in Nature. *Sustainability* **2022**, *14*, 10220. https://doi.org/10.3390/su141610220

Academic Editor: Stefania De Pascale

Received: 27 June 2022 Accepted: 10 August 2022 Published: 17 August 2022

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Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). managed (agricultural) and unmanaged (natural) ecosystems [3]. These fungal symbionts solely rely on the host system to fulfill their carbon requirements, and in exchange provide numerous benefits to the plant system in terms of sustainable nutritional flow, improved plant development, productivity, yield, stress tolerance, water uptake, enzymatic antioxidants accumulation, and soil fertility, etc. [3–5]. These microbial communities are enticed towards their symbiotic partners in response to some signaling factors in the form of root exudates released by the plants [6]. Moreover, in response to the mycorrhizal symbiosis, physicochemical as well as molecular alterations in plants leads to improved plant growth, where phytohormones impart considerable impact in regulating the overall process [7]. Mycorrhization benefits plants by up-regulating the catalytic activities of soil enzymes (such as phosphatases, dehydrogenase, nitrogenase, etc.), assisting in the breakdown of complex organic compounds of soil, and positively influencing other microbes present in the rhizosphere for improved nutrients uptake. Activation of these mechanisms, in turn, provides the ability to withstand drought stress, alleviate salinity, helps with micronutrient absorption and better water absorption, and defense systems in the plants [7]. Owing to these benefits, mycorrhizae have gained a lot of consideration towards multidisciplinary research and have huge applications in agriculture as bio-fertilizers, in fuel production due to the increased plant biomass, and in soil rehabilitation, phytoextraction, and phytoremediation, etc. The impact of mycorrhiza on plant survival in extreme environmental conditions, certain factors (phytohormones) that lead in the successful colonization and their mechanistic approach, and other potential applications are discussed in this paper.

This review aims to provide a better understanding about the plant-mycorrhizal interaction which supports sustained plant growth in the agricultural and forest biomes. These associations have been specified as crucial for regenerating over-exploited or lost forest covers. Due to these characteristics, they can be used as bio-tools for the conservation of many overlooked plant species that are significant to various commercial industries.

2. Methodology

A systematic review of relevant literature was conducted to find articles of relevance to the objective of the study. Keywords such as mycorrhizal association, rhizospheric soil microflora, plant–fungal symbiosis, bioremediation, abiotic stress, soil rehabilitation etc. were used to search the data. More than 200 review and research articles published in peer-reviewed journals were studied, and the most suitable were considered to represent the data in the form of a review article. Literature reviews for this report was searched using different databases such as Research gate, Google Scholar, Scopus, Web of Science and reference book records.

3. History

Arbuscule-like structures evolved during the Ordovician Period in the land plant fossils about 430 million years ago, which specifies mycorrhizal growth and successful colonization of land plants [8,9]. Based on the Rhynie chert evaluation, structural resemblances of subterranean organ fossils, and further molecular verifications in available literature concluded that the origin of AMF was in between the Ordovician and Devonian periods. In addition, co-evolution of these mycorrhizal fungi with plants suggests there are advantages of these symbiotic associations in providing increased strength to each other against diverse environmental conditions [6,8]. AMF are relatively older than nitrogen-fixing symbionts and have likely developed by co-opting mycorrhizal signaling components [10]. Originally, arbuscular mycorrhizae were placed under the zygomycetes classification, considering their morphological features of spores as taxonomic indicators. Lately, these taxonomic markers have been replaced by analyzing the molecular variations through rRNA (small subunit) sequencing. A taxonomic assessment using these molecular markers has led to the re-classification of all the AM fungi into a new phylum i.e., Glomeromycota (the sister clade to Ascomycota and Basidiomycota) [11]. Rhizophagus irregularis is the first mycorrhizal fungi with a completely sequenced genome and is the most studied strain in the research

field [12]. The classification of AM fungi has been well described from the very beginning up until recent times. It was divided into different timeline periods as: (a) 1845–1974 (the discovery period), (b) 1975–1989 (alpha taxonomy), (c) 1990–2000 (the cladistics period), and (d) 2001–2012 (the phylogenetic period) by [13]. Mycorrhizal evolution is considered to be one of the major revolutions in the development of global land flora. Endomycorrhizae are the most ancient and abundant of the symbiotic associations and are documented based upon fossil records [8,14]. Endomycorrhizae classified under the phylum Glomeromycota are also designated as 'vesicular-arbuscular mycorrhiza' (VAM) because of the presence of intracellular structures such as vesicles (storage structures) and arbuscules (branched tree-like structures within roots) (Figure 1). However, due to the ephemeral nature of arbuscular structures, they might often be missing or difficult to observe in the roots collected from soil (owing to the age and color of the roots) [15]. On the other hand, vesicles are present in most of the subsections of mycorrhizal symbionts (except some members of Endogonaceae), therefore, the more appropriate terminology given to this group is 'arbuscular mycorrhizae' (AM) [16]. Depending on the morphological and colonization patterns, AM are categorized into "Arum" and "Paris" types (Figure 1). The Arum type describes the linear intercellular spread of hyphal structures within the host roots that form a ramified tree-like arrangement-arbuscules (inside the infected cell) and infection spreads through the side branches penetrating the cortex. The Paris type, on the other hand, describes thick and coiled hyphal growth intracellularly, and infection proceeds from cell to cell through the cortex [15,17]. Another type of AM spread is the "Intermediate" type, where characteristics of both Arum and Paris are present in the infection [6].



Figure 1. Schematic diagram for mycorrhizal colonization stages of (**A**) Endomycorrhizae; (**a**) presymbiotic communication between fungal and root exudates; (**b**) hyphopodium development for fungal entry; (**c**) hyphal penetration into the cortex; (**d**) elongation of intraradical hyphae; (**e**) hyphae branching & arbuscule formation; and (**B**) Ectomycorrhizae; (**f**) mycelium or mantle sheath covering epidermis and cortical cells; (**g**) intraradicle elongation into cortical layer without penetrating cells (Hartig net).

After AM infection spread, cortical cells endure structural modifications and develop a periarbuscular membrane (PAM) outside the fungal hyphae. PAM supports trading of nutrients and photosynthetic material between both the symbiotic partners through an "inter-facial apoplastic compartment" (IAC; the gap between arbuscules and PAM) [6]. The majority of mycorrhizae are arbuscular mycorrhizae, which involves the monophyletic Glomales and a broad range of herbaceous and woody plants [14]. Despite their abundance
and wide range of relationship with plant species (>80% of terrestrial flora), AMF has shown low species diversity. AMF have high functional diversity because different combinations of host plants and AMF have distinct effects on the numerous aspects of symbiosis [17]. AM are obligatory symbionts and rely on the respective partner for the fulfilment of their carbon requirements, thus the establishment of AM cultures are not possible without any host plant [18]. AM fungi belong to nine genera: *Gigaspora, Scutellospora, Glomus, Acaulospora, Entrophospora, Archaeospora, Gerdemannia, Paraglomus* and *Geosiphon,* the only known fungal endosymbiosis with cyanobacteria [19].

These associations are true cosmopolitans and are apparent in all of the ecosystems from tropical forests, Arabic deserts, Arctic regions to elevated Himalayan regions, with few exceptions [20]. Moreover, AM fungi are the key contributors to the defense against various biotic and biotic stresses (Table 1).

Sr. No.	Stress Condition	Mycorrhizal sp.	Host Plant	Possible Mechanism	Reference
1	Salinity, 200 mM NaCl	Rhizophagus irregularis (Formerly Glomus intraradices)	R. pseudoacacia	Improved photosynthetic rate, PS-II photochemistry, water status, K ⁺ , Chloroplast (RppsbA, RppsbD, RprbcL)& transporter genes (RpSOS1, RpHKT1, RpSKOR) up-regulation, lower shoot:root Na ⁺ content	[21]
2	80 mM NaCl	Glomus intraradices	Lactuca sativa	performance, photosystem (PS-II), Carotenoid deoxygenase gene (LsNCED2) induction, normalized ABA level and by altering the hormonal profiles (SLs induction)	[22]
3	100 mM NaCl	Rhizophagus irregularis	Solanum lycopersicum	Elevated K+ and K+/Na+ ratio (prevention of metabolic processes disruption), regulated hormone synthesis & cross talk	[23]
4	200 mM NaCl	Glomuse tunicatum, Glomus intraradices, Glomus mosseae	Cucumis sativus L.	Photosynthetic pigments regulation, enhanced antioxidant activities, osmolyte (proline& phenols) regulation, improved water status; regulated mineral uptake; reduced uptake of Na ⁺ .	[24]
5	200 mM NaCl	Claroideoglomus etunicatum	Aeluropus littoralis	Overcome free radical formation by elevated antioxidant activity, high CO ₂ synthesis and nitrate assimilation	[25]
6	120 mM NaCl	Funnelliformis mosseae, Acaulospora laevis, Gigaspora margarita	Oryza sativa L.	Rise in chlorophyll content, K ⁺ /Na ⁺ ratio, photosynthesis, and dropped shoot/root Na ⁺ ratio by limiting Na ⁺ uptake and translocation.	[26]
7	200 mM NaCl	Funneliformis mosseae	Malus domestica Borkh.	AMF in combination with dopamine help to maintain host cell membrane integrity, improves photosynthesis	[27]
8	35 and 70 mM NaCl.	Glomus sp. mix (G. mosseae, G. intraradices, G. hoi)	Citrus aurantium L.	Elevation in plant growth, chlorophyll levels, improved water status, gas exchange capacities (increased photosynthetic rate, stomatal conductance and transpiration rate), enhanced oxidative stress defense system	[28]
9	160 mM NaCl	R. intraradices and F. mosseae.	Prunusdulcis× Prunuspersica hybrid	Improved physiological parameters (chlorophyll, osmolytes that are soluble sugars and proline content to combat salt toxicity) and increased antioxidant enzymes activity compared to non-inoculated. F. mosseae elevated chlorophyll content more efficiently, whereas R. intraradices prevailed total sugars and proline content	[29]
10	150 mM NaCl	Glomus etunicatum, Glomusgeo sporum, and Glomus mosseae	Oryza sativa L.	Improved physiological parameters (chlorophyll, osmolytes that are soluble sugars and proline content to combat salt toxicity) and increased antioxidant enzymes activity	[30]

Table 1. Effect of mycorrhizal symbiosis on stress tolerance.

Table 1. Cont.

Sr. No.	Stress Condition	Mycorrhizal sp.	Host Plant	Possible Mechanism	Reference
11	_	Funneliformis mosseae and Claroideoglomus etunicatum	Puccinellia tenuiflora	Increased P uptake, high antioxidant capacities, enhanced biomass to dilute the salt concentration, elevated K ⁺ /Na ⁺ ratio, restricted Na ⁺ translocation towards aerial parts.	[31]
12	200 mM NaCl	Glomus monosporum, G. clarum, Gigasporanigra, and Acaulospora laevis	Vigna unguiculata L.	Elevated photosynthetic pigments, soluble sugar contents, ions accumulation and compartmentalization (maintained membrane integrity) and high enzymatic activities. Stress tolerance varies depending upon the	[5]
13	Drought Stress	Funneliformis mosseae (formerly Glomus mosseae) and Rhizophagus intraradices	Solanum lycopersicum	myc-species. F. mossaeae promoted volatile emission (VOC), high arbuscule formation in colonization regions R. intraradices is more efficient towards P uptake (upregulated P transporters; LePT4,5), high plant performance to lower water dispersal by adopting a compact structure (high internode/height ratio), high water utilization efficiency	[32]
14	Drought Stress	AMF	Glycine max L.	Increased water holding capacity, photosynthesics, osmoregulation	[33]
15	Drought Stress	Rhizophagus irregularis (formerly Glomus intraradices) and Funneliformis mosseae (formerly G. mosseae)	Trifolium alexandrinum L.	Enhanced nutrient uptake, increase in phosphorus acquisition, defense against oxidative stress, increased N_2 fixation, sufficient availability of the photosynthates	[34]
16	Drought Stress	Funneliformis mosseae and Rhizophagus intraradices	Solanum lycopersicum	Aquaporin genes regulation; LeNIP3;1 (overexpressed), LeNIP3;1 & LeTIP2;3 (suppressed) by F. mosseae, and RiAQPF1 & 2 (overexpressed) by R. intraradices, elevated stomatal density, activation of LOX (lipoxygenase) genes, increased antioxidant activity, proline content (osmoregulation)	[35]
17	Drought Stress	Funneliformis mosseae	Triticum durum Desf., Triticum aestivum L.	Positive impact on root metabolome, high C fixation, high P sugar accumulation, osmoregulatory effects, anti-oxidative behavior, regulated phytohormone profile Efficiency of photosystem II, membrane stability,	[3]
18	Drought Stress	Rhizophagus irregularis	Zea mays	osmotic regulation via accumulation of soluble sugars and plant biomass production. Root hydraulic conduction via down-regulating aquaporin genes (ZmPIP1;6, ZmPIP2;2, and ZmTIP4:1)	[36]
19	Drought Stress	Myc-mix. (Rhizophagus intraradices + Funneliformis mosseae + F. geosporum)	Triticum aestivum	Elevation in photosynthetic pigments, high Mg uptake, C fixation (photosynthate) and biomass; improved water status; enhanced PSI & PSII photochemistry	[37]
20	-	Rhizophagus irregularis	Solanum lycopersicum	osmoregulation and root hydraulic conductivity	[38]
21	Temperature stress (43–44 °C)	Funneliformis sp. AMF	Zea mays	Up-regulated water transport and transpiration, regulated PSII heterogeneity, stomatal conductance	[39]
22	(44 °C)	Rhizophagus intraradices, Funneliformis mosseae, F. geosporum	Zea mays	Enhanced PSI & PSII photochemistry, high Mg ²⁺ uptake.	[40]
23	(35 °C)	Rhizophagus irregularis, Funneliformis mosseae, Funneliformis geosporum, Claroideoglomus claroideum	Triticum aestivum L.	Increased photosynthetic yield, nutrient distribution and nutrient composition in roots, lowered the K/Ca ratio	[41]
24	(3–5 °C)	Glomus versiforme and Rhizophagus irregularis	Hordeum vulgare L.	Enhanced membrane stability, antioxidative capacity & phenolics metabolism Glomus sp. imparted more alleviation against cold stress. Rhizophagus found more efficient towards survival rate.	[42]

Table 1. Cont.

Sr. No.	Stress Condition	Mycorrhizal sp.	Host Plant	Possible Mechanism	Reference
25	(15 °C)	Rhizophagus irregularis	Zea mays L.	Down-regulated PS-I & PS-II genes and decreased oxidative stress, enhanced C assimilation by metabolic upregulation, high ATP production by increased P concentration	[43]
26	(5–25 °C)	Funneliformis mosseae, Claroideoglomus etunicatum, Rhizophagus irregularis, and Diversispora versiformis)	Solanum melongena L.	Promoted photochemical, antioxidant activities, and maintained membrane integrity, proline and phenolics accumulation (protection against stress)	[44]
27	$(4\pm0.5~^\circ\mathrm{C})$	Glomus intraradices	Citrullus lanatus	Improved photosynthesis, induced peroxidase (POX) activity, restoring photosynthesis efficiency, released oxidative stress	[45]
28	Biotic stress Aphids (M. eunhorhiae)	Rhizophagus intraradices	Solanum lycopersicum L.	Indirect defense via enzymatic release of methyl salicylate to attract parasitoid A.ervi	[32]
29	Spodoptera littoralis	Rhizophagus irregularis	Solanum lycopersicum L.	Enhanced nutrient acquisition, N_2 fixation, defense activation	[46]
30	Caterpillar, Helicover- paarimigera	Glomus mosseae	Solanum lycopersicum Mill.	Activation of stress responsive genes (LOXD, AOC, PI-I & II) in leaves, regulated JA cascade	[47]
31	Meloidogyne incognita (severe yield losses in tomato)	Rhizophagus intraradices	Solanum lycopersicum	Improved plant peroxidases for ROS scavenging, Upregulated flavonoid enzymes, modulation of pathogen related genes (LTP), phytohormonal regulation, increased glutathione transferases	[48]
32	Fusarium virguliforme	Rhizophagus irregularis	Glycine max	Peroxidase genes regulation, decreased. Down-regulation of several genes coding for glutathione-S-transferase (GST)	[49]
33	Xiphynema index	Rhizophagus intraradices	Grapevine rootstock SO ₄ (Vitis berlandieri × V.riparia)	Decreased down-regulation of several genes coding for glutathione-S-transferase (GST)	[50]

The establishment of ectomycorrhiza (ECM) symbiosis occurs through higher fungi mycelia, taxonomically placed under Basidiomycota predominantly, and a few under Ascomycota [51,52]. The most important characteristic of these associations is the nonseptate basidium of spore-producing symbionts. These associations usually establish in rootlets of woody flora (bushes or trees) of temperate and some tropic regions. They are mostly categorized under the myrtle family (Myrtaceae), beech family (Fagales), birch family (Betulaceae), rock rose family (Cistaceae), pine family (Pinaceae), willow family (Salicaceae), Dipterocarpaceae and to a lesser extent they are also found in Nyctaginaceae & Polygonaceae [53]. Ectomycorrhizae represent less than 5% of the mycorrhizal associations known in vascular plants, but are ubiquitous in the Pinaceae. Plants under this family dominantly inhabit the diverse climatic conditions and nutrient-deficient soil which are the key influencers of ectomycorrhizal associations. These ECM symbionts are the key players maintaining the nutritional flow through the forests by extending their mycelial network through both the host system and surrounding soils [51]. Ectomycorrhiza form 'mycelium mantle' surrounding the host root system (short lateral roots) which further occupies the epidermal and cortical cells without penetrating through the cortex. This results in highly branched mycelial structure to form 'Hartig net' [53]. Hartig net plays a critically important role in mutualism by forming the plant-fungus interface through which exchange of the nutrient material between both partners takes place. Besides, mycelia emerging through the root mantle are absolute in hunting the nutrient substances from inundating soil. The ECM colonizing plant range is relatively smaller than AM, despite the fact that owing to the larger forest canopy conquered by these associations, their economic value is steadily growing [19]. The most suitable biological habitat for these associations is parched, non-calcareous, sandy soil regions, swamps, and the lowlands of the Northern Hemisphere [54]. The first impression of such associations is not clear however, because of the obscure preservation in the form of fossil remains attributable to their ephemeral nature, minuscular dimensions, and delicate tissues. Acknowledging that the molecular

clock indicates that their first existence is supposed to be from the early Cretaceous period, almost 130 mya [55]. They have evolved as derivatives of saprotrophs and the pattern of their association with the host has evolved autonomously many times [14]. Moreover, the permineralized flora of Princeton chert is apparent for the existence of ectomycorrhizal associations unveiling the ECM structures that are the Hartig net, mantle, and extra-matrical hyphae networks (Figure 1). These findings verify the rise of ECM at least 50 mya [56].

4. Role of Phytohormones in Regulating the Development of Plant-Fungus Symbiotic Association

Phytohormones are the key regulators of all the physicochemical, molecular, and phenotypic expressions of plants. These factors, in very small fractions, facilitate the signal transduction in response to different environmental stimuli. This in turn regulates plant growth, stress resistance, pathogenic resistance, and nutrient flow, etc. [57]. Based on the cellular environment, these molecules can act both in down-regulating or in a synergistic manner. They have been categorized as developmental {auxins (Aux)/cytokinin (Cyt)/gibberellins (GA)/brassinosteroids (BR)/strigolactones (SLs)} and stress resistant {(salicylates (SA)/ethylene (ET) /abscisic acid (ABA)/jasmonates (JA)} hormones. Although, stress-relieving hormones are not limited to this characteristic, and their interaction with growth-regulating hormones control various growth responses and vice-versa [57]. These hormonal interactions flow in a sequential fashion mainly includes: signal input (SI; differential buildup of phytohormones after receiving environmental stimuli), signal processing (SP; a triggered cascade of repressors/stimulators/transcription factors post ligand- receptor binding), and signal output (SO; in the form of phenotypic response post transcriptional changes) [57,58]. Various behavioral responses by different plant hormones have been addressed further with their effects on mycorrhizal colonization (Figure 2). Additionally, significant effects of protein-protein interaction has been evidenced in these regulatory responses [58]. DELLA & JAZ are the key proteins that regulate the GA & Jas pathways, respectively and provide defense and growth benefits to the plants. These interactive regulations (by DELLA & JAZ) are not limited to defense hormones but with other factors also (Aux, ethylene, light, etc.) [59,60].



* Evidences for particular stage affected by BR still require further investigation.

Figure 2. Impact of various hormones on symbiotic phase regulation and suggested mode of action.

4.1. Auxin

Several reports are available describing the contribution of the plant hormone to the formation of mycorrhizal associations since the first evidence of auxin involvement in ectomycorrhizal symbiosis was published [61]. Although, auxins are well known for their ability to regulate the plant root system, their role and action mechanism involved in symbiotic association still needs to be explored [62]. It has been reported that the auxin molecules released by the ECM variety enable the successful establishment of plant-mycorrhiza association that results in an improved root system [63]. Also, in *Terfezia boudieri* and *Cistus* incanus, auxins and P (phosphorus) govern the type of symbiotic associations (AM or ECM) [64]. Various studies have indicated certain impacts of auxins on inoculation and the colonization abilities of fungal symbiosis. The exogenous use of auxins in mycorrhizae associating plants viz. Papaver croceum and Quercus robur influences greater ECM establishment. Contrary to this, Aux transport inhibitors (TIBA; 2,3,5-triiodobenzoic acid & NPA; 1-N-naphthylphtalamic acid) hamper the mycorrhization process [65,66]. Auxins play a vital role in regulating the structural parameters of roots, which is subjective to the exudation and colonization by the fungal partners [67]. Higher auxin concentrations results in various structural variations in the roots such as attenuated gravitropic progression of taproot, generation of lateral roots to facilitate more colonization [63,68]. Fungal Aux stimulating lateral root proliferation in plants provides more infection sites for the fungal colonization, since the infection occurs closer to the root cap area with a higher probability of mycorrhization. Besides, these small molecules are evident for the increased arbuscular development by activation of various transcriptional mechanisms [6,39,40].

4.2. Strigolactone

Strigolactones (SLs) are plant hormones exuded by plants in the rhizosphere as signaling molecules [69]. They are carotenoid-derived molecules, like the other phytohormones in their action mechanism [10]. Originally, they were discovered as germination stimulating factors of parasitic weed Striga lutea and Orobanche exudates. A few decades later, their role in hyphal branching and the symbiotic association between plant mycorrhiza were witnessed [70,71]. These molecules travel upwardly in plants and down-regulate branching in plants. Their basic action mechanism in symbiosis is identical to the other plant growth regulators, that is, hormone-derived proteolysis [70]. SLs are specifically reported to trigger hyphae formation and branching in mycorrhizal species of Gigasporaceae & Glomeraceae families [10]. Mycorrhizae exhibit extremely sensitive behavior for SLs (GR24; synthetic analog of SL) and hence very low concentrations (approx. 10 nM) are sufficient to establish a symbiotic connection. These molecules recruit the nuclear division, mitochondrial expansion and promote the catalytic performance of NADH dehydrogenases with high ATP production, which are the essential parameters for hyphal growth in *Gigaspora rosea* [72]. For these activities, the fundamental structure of the intact tricyclic (ABC) lactones and a butanolide (D) ring (attached through an ether linkage) is critical and consistent [10,69]. However, both methylation and demethylation processes are imperative in the varying fungal growth response. Also, the study suggested that the developmental parameters such as hyphal branching may not always signify the symbiotic association between both the partners [73]. Additionally, SLs elicit the production of fungal exudates (myc factors i.e., lipochito- oligosaccharides & chito-oligosaccharides) for the enhanced fungal activity in the symbiotic association process [74]. Due to negligible stability in soil, strigolactones establish a gradient surrounding the roots which provide direction to the mycorrhiza [75]. It has also been reported that the extent of colonization in Petunia mutant plants (SL exporter muted) gets abridged due to the blocked exudation of SLs (orobanchol). Before the colonization process, the growing hyphal tip attaches to the root surface after differentiation into the hyphopodium or appressorium. Formation of a pre-penetration apparatus by the plant cells underneath the hyphopodia takes place for the fungal permeation into the plant. After penetration, fungal hyphae grow inter or intracellularly through the cortical cell layer and form arbuscules which supports nutrient exchange between both partners [76].

4.3. Gibberellin

Gibberellins (GA) are associated with different plant growth stages such as seed germination (breaking seed dormancy), pollen growth, root-shoot elongation, and flower induction, etc. These molecules trigger the signaling cascade which is responsible for the degradation of DELLA TFs (transcription factors) because of poly-ubiquitination by another TF-E3 ubiquitin ligases [77]. Hence, loss of function of the DELLA-TFs is key to express the GA induced response [78]. Based on the available reports, notable evidences have suggested negative impacts of the GA application on AM symbiosis in plant species like (Pisum sativum, Lotus japonicas, Solanum lycopersicum, Oryza sativa, Medicago truncatula, and Triticum etc. [40,50,51]. Although, the rise in GA concentration in AM associated plant Lotus japonicus roots have been reported and increased, GA levels may regulate the hyphal density in the roots by maintaining the arbuscule formation [79]. The pea variety (na-1), which are GA deficient due to the inactive ent-kauremoic enzyme, exhibit high mycorrhizal colonization than the wild type *P. sativum* plants which authenticates the previous findings [80]. Moreover, stable expression of the DELLA protein (della1- Δ 18; non-degradable/ resistant to GA due to the absence of the DELLA domain) is significant in successfully developing mycorrhizae in *L. japonicas* and *M. truncatula* [78,79]. Further, GA signaling initiates the formation of arbuscular structures and not the hyphae branching. This is evident in the DELLA mutant forms of rice plant (slr1), P. sativum & M. truncatula (della1 & della2) showing a drastic decline in the arbuscular count (than in other fungal structures) [81,82]. On the other hand, overexpressing Della factors SLR-YFP (O. sativa), Rht1 and Rht2 (*Triticum* sp.) resulted in a rise in these structures [83].

4.4. Abscisic Acid (ABA)

ABA plays a crucial role in plants with regards to stress management [84,85]. In stress (drought) conditions, ABA levels increase to induce stomatal closure in leaves of mycorrhizae treated plants like *Glycine max* and *Solanum lycopersicum* roots [86,87]. ABA also influences mycorrhization in a dose-dependent manner and supports this perception in *S. lycopersicum* & *M. truncatula*. Lower concentrations of ABA in plants like *S. lycopersicum* ABA mutant (sitens) and *M. truncatula* ABA mutant (PP2A) have shown declined arbuscular branching and fungal penetration into roots, respectively [35]. Besides, in sitens mutant variety, a reduction in AM can be rescued by the application of exogenous ABA. ABA cross-interaction with others suppresses GA (DELLA) cascade, thereby increasing arbuscular formation [75].

There are only a few studies about ABA's role in AM development and apart from the discussed assumptions, further clarification about the molecular mechanism is still needed [75].

4.5. Jasmonate (JA)

Jasmonic acid, a key defense phytohormone active against both biotic and abiotic stress, has significant role in mycorrhizal symbiosis [75]. JA has been reported to exhibit both positive as well as negative to neutral responses for mycorrhizal symbiosis, where JA cascade is triggered in response to a myc-fungus infection which resulted in enhanced synthesis of JA precursor and genes [88]. Negative consequences on mycorrhizal colonization are due to increased JA in *S. lycopersicum*, *T. majus*, *O. sativa*, and *C. papaya*, by activating the plant's defense system and rise in Ca²⁺ spiking. Similarly, mutant rice plants (cpm2; JA deficient) were reported to have increased mycorrhizal colonization in roots [75,88]. In tomato mutant (def-1) plants (JA deficient), mycorrhizal colonization exhibited positive impacts such as improved resistance to biotic stress (via *Spodoptera littoralis*) compared to non-inoculated plants (wild type & constitutively JA producing). With JA-accumulating plants, alleviated colonization has been reported [46]. Contrary to this, tomato plants conferring progressive effect of JA on mycorrhizal colonization have also been reported where suppressed JA levels resulted in a delayed mycorrhization process, and vice-versa [89,90]. However, further clarification about such contrasting effect is still needed. One of the

possible mechanisms reported for the regulated JA functioning has been the environmental factors (i.e., light conditions). Thus, JA homeostasis plays a crucial role in optimal mycorrhizal colonization [75].

4.6. Brassinosteroid

Brassinosteroids (BRs) are steroidal hormones which regulate different aspects of plant growth such as the development of flower parts (stamen and pollen) through cellular expansion and elongation, vascular system development, fruit ripening, shoot elongation, and pathogenic defense systems, etc. [40,65,66]. Few reports are available which state the role of BRs in mycorrhizal symbiosis in plants such as rice, wheat, tomato, pea etc. In recent findings, it has been concluded that deficiencies of BRs (caused by a mutation in BR synthesizing genes) resulted decline in mycorrhization in mutant rice (brd2-1), pea (lk) and tomato (dx) plants [91–93]. Whereas, foliar nourishment of synthetic BRs leads to the improved mycorrhization in wheat [94]. Some studies have suggested the elevated sucrose transport (through a SISUT2 transporter) and its increased availability to the fungus as a significant factor for improved mycorrhization [91,92]. Recently, it has been reported that the deficient BRs responses and the silencing of the SISUT2 transporter also decreases mycorrhization in tomatoes, along with reduced pollen development [95]. Further work to demonstrate a detailed understanding behind BRs activity is still required [78].

4.7. Ethylene

Ethylene (ET), a stress hormone, plays an important role in many physiological activities in plants [96]. This volatile phytohormone imparts both positive as well as negative controls on plant growth such as promoted seed germination, fruit ripening, and cell senescence [75]. Very few reports describing the role of ET in mycorrhizal development are available, revealing the regulation of plant immunity and crucial in interactions of the plant with symbiotic or pathogenic microbes. According to the literature surveyed, the elevated concentration of ET is evident in downregulating the mycorrhization process [93]. In a report, this effect was found consistent in the *M. truncatula* mutant (ein2, ET insensitive) where increased mycorrhizal development in response to ET insensitivity was reported [97]. On the other hand, the ET-insensitive pea plant did not favor mycorrhizal development, neither did it suppress AM development when supplemented with ethylene [93]. In the tomato mutant (ET overproducing), the reduction in the roots colonized with mycorrhizal fungi has also been reported [93]. Moreover, different morphological effects in response to the ethylene have been observed, where ET-ABA interactions down-regulate the intraradical colonization without affecting hyphopodia on the root [98]. In other plant species like P. sativum, O. sativa, and L. japonicas, unusual hyphopodial structures were observed as an effect of ethylene with restricted root entry by mycorrhizal species [99,100]. The most probable reason suggested for these ethylene-induced effects has been targeting factors involved in Ca²⁺ spiking cascade and the activation of transcriptional factors and enzymes (amino cyclopropane carboxylate oxidase) involved in the defense system in response to colonization by Glomus fasciculatum [75,98]. It has also been reported that ET signaling is associated with phosphate starvation [101]. Although further research is needed to clarify whether ET reduction occurs to promote intra-radical mycorrhization or because of increased P nutrition by symbiosis [75].

4.8. Salicylic Acid (SA)

SA has been regarded as a stress phytohormone which stimulates endogenous signaling cascade to acquire systemic resistance against pathogens. Signaling also gets induced during mycorrhizal symbiosis, which results in an undesirable impact on mycorrhizal colonization with the host root [6,75]. In tobacco plants (transgenic; exhibit constitutive SA synthesis) due to continuous synthesis of SA, alleviation in colonization has been observed. On the other hand, decreased SA concentrations due to SA hydroxylase activity promoted the colonization [102]. Like ABA, SA reduces mycorrhizal colonization in rice, although no observable effects on hyphopodium development have been reported [103]. Additionally, the SA introduction into rice effects the efficiency of fungal association by lowering the colonization in roots without disturbing the development of appressorium, which indicates indirect influence of SA on fungal growth [6]. Besides, the rise in SA concentration in defective *P. sativa* (for myc-symbiosis) has been reported. Contrary to this, transgenic tobacco (down-regulated SA production) maintained an increased colonization efficiency [102]. In this context, the suppressing effects of SA on fungal penetration into the host via roots has been suggested [104]. Conclusively, based on the literature available, the application of SA in higher concentrations may reduce or delay the process of successful mycorrhizal colonization in plants. There are only a few reports even now and therefore, the role of SA in mycorrhizal symbiosis still requires further investigation.

5. Applications of Mycorrhizal Symbiosis to the Ecosystem

5.1. Positive Impacts on Plant Growth and Nutritional Requirements

The most prominent assistance provided by symbiotic association of plant-mycorrhizae is to improve growth through the sustainable and enhanced supply of micronutrients. The most evident nutrients involved in this phenomenon is Phosphorous (P) which has additional benefits such as carbon assimilation, regulated enzymatic activities, water retention, and improved soil quality which leads to a positive impact on plant growth [105,106]. AMF are associated with the regulated flow of water and nutrients in exchange of carbohydrates from the host [106]. The mycorrhizal association modifies the morphology of the host roots and improves water-mineral uptake from the rhizosphere [107–109]. These associations show varying colonization patterns and capacities depending upon the plant species [110]. AM symbiosis also regulate rhizospheric enzymes such as urease, glucosidases, dehydrogenase, nitrogenase, phosphatase, catalase, peroxidase and soil polyphenol oxidases to provide better soil antioxidant activities [111–114].

Rhizospheric enzymes improve soil aggregation by hydrolysis and the activation of non-available organic matter in soil, the transfer of nutrients within or between the plants, stabilizing mycorrhizal products like hydrophobins, polysaccharides, glomalin related soil proteins and other extracellular composites, and chelating toxic substances in the rhizosphere [114]. Increased phosphatase activities by mycorrhizal association amplifies levels of phosphorus release from the soil organic matter, hence enhanced translocation of nutrients from the soil to the host plant. In addition, the pattern of intra-radical and extra-radical hyphal structures influence the phosphorus metabolisms among AM species [115]. Conclusively, most of the plants in the natural environment depend on mycorrhizal associations for their nourishment, and these associations have been reported for the transport of about 50% of fixed N and 90% of P into the plant [116,117].

5.2. AMF and Mineral Nutrition

Mycorrhizal symbiosis has gained significant attention with regards to agricultural sustainability due to its characteristic properties of mineral nutrients uptake, utilization, translocation, and how it acts as a biocontrol instrument to the plants. As mentioned in previous sections, they exhibit a critical mediator between the roots and soil, where the soil nutrients acquired by fungal partners get moved to the plant partner in exchange for the photosynthetic carbon produce. Mycelial extensions on the roots' surface help plants to capture nutrients more efficiently by increasing the surface area, and hence maximum the absorption of soil minerals [118]. The mycorrhizal association triggers the transfer of minerals such as phosphate, ammonium, nitrate, zinc, copper, potassium, sulfur, etc. with the help of various transporters (Table 2) [21,32]. Phosphate transporters (PTs) present in the mycorrhizal fungi due to their high affinity have been extensively studied for their functional and molecular characteristics imparting nutritional benefits towards plant development [4,117]. AM associations have also been reported to promote P uptake cascade in plants, by triggering expression of some phosphate transporters in many plant species such as in *M. truncatula* (MtPT4), *A. sinicus* (AsPT1) and *O. sativa* (OsPT11) [119–121]. In this

way, phosphate accumulated via mycelial absorption (an active process) is accessible to the plants. These transporter proteins are considered to be indicators of mycorrhizal symbiosis embedded on periarbuscular membranes (PAM) (Figure 3) [122]. Other plant transporter genes for micro and macronutrients like ammonium (AMs), sulfur (SULTF), zinc (ZIPs), nitrate (NPF), potassium (KTs) etc. have also been identified in mycorrhized plants. These transport systems are coupled with a positive impact on arbuscular development as well as a regulatory response to the plant homeostasis [119,123]. In addition, potassium (K⁺) plays a significant role in plant physiological processes and a symbiotic association with fungus not only increases the potassium supply, but also provide resistance against drought stress to the plant. Potassium accessibility in soil, however, is of concern due to their high mineral adsorption characteristics. Although, these (K⁺) transporters are associated with myc-symbiosis, their significant physiological involvements have been less explored [123]. Moreover, myc-inoculation into the agricultural sites could soon possibly be an effective method for improved crop productivity, nutritional flow, and regulation of symbiotic associations [116].

Table 2. Regulation of mineral nutrition via transporters in mycorrhizae associated plants.

Sr. No.	Mineral	Mycorrhizal sp.	Plant sp.	Host Plant Transporters	Effect of Mycorrhizal Symbiosis	Reference
1.	Phosphate	Claroideoglomus etunicatum	Camellia sinensis	CsPT1 & CsPT4	AMF up-regulated root CsPT1 expression, while down-regulated the CsPT4 expression. AMF inoculation significantly promoted P acquisition capacity of tea plants, especially in roots through improving root growth and enhancing soil acid phosphatase activity and root CsPT1 expression.	[124]
		Rhizophagus irregularis	Zea mays	ZmPht1;6 & ZmPht1;11	AMF improved plant growth and Pi assimilation, AMF colonization strongly improved the nutritional status of the plants and increased the internal P concentration. ZmPht1;6 over expression at a high level in AMF-colonized roots. While less expressed ZmPht1;11 also stimulated by AMF colonization.	[125]
2.		Gigaspora margarita or Funnelliformis mosseae	Lotus japonicus	LjPT4	LjPT4 affects proper arbuscule formation on the fungal side and for improved Pi uptake on the plant side.	[126]
3.	Sulfur	Rhizophagus irregularis	Zea mays	ZmSULTR1.2a, ZmSULTR2.1, ZmSULTR3.5	Upregulation of ZmSULTR1.2a & ZmSULTR2.1 in sulfur deprived conditions while downregulation of ZmSULTR3.5 in mycorrhized plants.	[127]
4.	Copper	Rhizophagus irregularis	Medicago truncatula	MtCOPT2	Preferential expression of MtCOPT2 during mycorrhizal symbiosis.	[128]
	Nitrate	Rhizophagus irregularis	Oryza sativa, Zea mays, Sorghum bicolor, Medicago truncatula	OsNPF4.5, ZmNPF4.5, SbNPF4.5, MtNPF4.5	Myc-symbiosis resulted in efficient up-regulation of OsNPF4.5, ZmNPF4.5 and SbNPF4.5, while slight induction of MtNPF4.5.	[129]
		Rhizophagus irregularis	Oryza sativa	OsNPF genes: NPF2.2/ PTR2, NPF1.3, NPF6.4 and NPF4.12	Enhanced expression of nitrate transporter genes in mycorrhizal roots in nutrient dependent manner.	[130]
5.	Ammonium	Rhizophagus irregularis	Oryza sativa	OsAM1, OsAM10, OsAM20, OsAM25	Significant upregulation in roots via AMF symbiosis.	[130]
		Rhizophagus irregularis	Oryza sativa	OsAMT3.1	Up-regulation of OsAMT3.1 in rice mycorrhizal roots	[129]

Sr. No.	Mineral	Mycorrhizal sp.	Plant sp.	Host Plant Transporters	Effect of Mycorrhizal Symbiosis	Reference
6.	Zinc	Rhizophagus irregularis	Medicago truncatula	MtZIP5, MtZIP2	AMF symbiosis caused higher expression of MtZIP5 in poor rhizospheric Zn condition and reduction in MtZIP2 at elevated soil Zn concentration.	[131]
		Rhizophagus irregularis/mock- inoculated	Hordeum vulgare	HvZIP3, HvZIP7, HvZIP8, HvZIP10, HvZI13	Out of five transporters, HvZI13 found most significantly upregulated, HvZI3 & 8 upregulated also in Zn deficient conditions, while HvZI7 & 10 downregulated.	[132]
7.	Potassium	Rhizophagus irregularis	Lycium barbarum Solanum lycopersicum	LbKT1, LbSKOR SlHAK10	Regulated expression of LbKT1 and LbSKOR for varying water & potassium availability	[133,134]



Figure 3. The effect of mycorrhizal associations on plant growth and restoration of soil: alleviated nutrient supply, poor root network and impaired plant growth without mycorrhizal exposure (**left**), and rhizospheric extraradical hyphae extension deep into inaccessible soils (soil aggregation), elevation in nutrient uptake (ionic exchange by arbuscule formation through IFA) and improve plant growth (**right**).

5.3. AMF as Bio-Fertilizer

Generally, bio-fertilizers are substances which include microbial population and when applied to the soil, result in improved plant growth by promoting mineral nutrition uptake, water supply, protection against biotic/abiotic stresses, and soil quality. In particular, the fungal microorganisms (due to thin hyphal structures) have emerged as extremely proficient networks with the capabilities of nutrient acquisition from soil inaccessible to the plant roots [135]. Hence, mycorrhizal symbiosis is promising in alleviating limitations related to nutrient uptake [116]. It is also a very interesting fact that the plants invest almost a hundred times of the energy (in C form) required to produce a root than a single hypha which further travels beyond the exhausted nutritional regions of the soil for sustainable

Table 2. Cont.

nutrient supply. These inferences support the cost-effective nature of the mycorrhizal symbiosis [136]. Mycorrhizal symbiosis is propitious for improved soil texture and other physicochemical properties that result in aggregate formation (in dry or wet conditions), improved soil catalytic performances, proper aeration because of hyphal entanglement, balanced soil pH, etc. Fungal hyphae penetrating deep into the soil form a mesh-like hold upon soil particles and result in micro and macroaggregates formation [137]. Glomalin, the fungal exudate is associated with the formation of these aggregates and helps to hold the soil matrix [136]. These aggregates ultimately provide: (a) protection against soil erosion through heavy wind and water flow, (b) porous texture to the soil, (c) carbon fixation by protecting the organic matter decay by other microbial populations and (d) soil moisture regulation [137,138]. In a recent study, it has been indicated that Glomalin related proteins (product of AMF) help in the restoration of eroded lands by increased soil aggregation and organic carbon sequestration [139]. A variety of mycorrhizal biofertilizers are available on the market (such as Rootplus, Vamstar, Myko-win, Rutmy, Farrata, VAM, Mycoxol, etc.) and have been used widely in agriculture for higher crop yield, production, and soil fertility.

5.4. Mitigation of Biotic & Abiotic Stress

Harsh environmental conditions (abiotic stress) and pathogenic attack (biotic stress) are the major intimidations to global agricultural produce. Negative consequences of these stresses can impede plant growth, nutritional inequities, physiological ailments, ionic toxicity, and cause hormonal imbalance. To overcome the negative consequences, plant adopt several physiological, morphological, structural, and biochemical modifications to alleviate stress [39,47]. A mutualistic association with soil microorganisms promises a stress-tolerant approach towards improved plant defense [26]. From previous reports, it appears that myc-plants exhibit more efficiency in growing under stress conditions [23,28,48]. Reports are available describing stress resistance via: (a) regulated ionic uptake for improved osmoregulation ($P\uparrow$, $N\uparrow$, Mn, $K\uparrow$, Na \downarrow , etc.), (b) up-regulated photosynthetic performance, (c) alleviated oxidative stress, (d) enhanced soil catalytic (mainly phosphatases) activities (for improved availability of mineral elements), (e) the dilution effect on harmful salts/minerals, (f) hormonal balancing, (g) regulation of plant-fungus aquaporin and mineral transporter genes, and (h) elevated water status (Figure. 3) [31,36,45,47]. Different mitigation responses for various biotic/abiotic stresses have been listed (Table 3). However, the mitigation mechanisms for various stress conditions have been debatable and, depending upon the associated myc-plant species, mitigation responses may vary.

Pollutant	Mycorrhizal Species	Plant Species	Possible Mechanism	Literature Cited
	Rhizophagus irregularis	Daucuscarota	Reduced translocation, and immobilization of Cr ⁶⁺ through EPS (extracellular polymers) production. distribution of Cr in roots	[140]
Chromium (Cr)	Rhizophagus irregularis	bermudagrass [Cynodondactylon (Linn.)	Cr absorption and immobilization by AM roots, Reduction of Cr ⁶⁺ to Cr ³⁺ within fungal structures, inhibited Cr flow from roots to shoots,	[141]
	Rhizophagus irregularis	Taraxacum platypecidum	Cr absorption and immobilization by AM roots, inhibit Cr translocation from roots to shoots, promoted plant growth	[141]
	Glomus deserticola	Prosopisjuli flora-velutina	Accumulation of Cr in vascular tissue and decreased the translocation of Cr into shoots	[142]

Table 3. Influence of different mycorrhizal sp. on soil restoration by phytoremediation of toxic metals.

Table 3. Cont.

Pollutant	Mycorrhizal Species	Plant Species	Possible Mechanism	Literature Cited
	Glomus mosseae & G. intraradices	Vetiver grass	Increased P uptake by the plant and improved overall growth (<i>G. intraradices</i> showed more rehabilitation capacity)	[143]
Zinc (Zn)	Glomu smosseae	Trifolium pratense	Zn accumulation in roots which decreases in shoots as the Zn conc. rises to its maximum, improved P sustenance Increased root to shoot metal accumulation.	[144]
	Glomus deserticola	Eucalyptus globulus	high metabolic activity, symbiotic effect of saprophytic fungal sp. on mycoremediation process	[145]
Lead (Pb)	Glomus mosseae& G. intraradices	Vetiver grass	Increased P uptake by the plant and improved overall growth (<i>G. mosseae</i> showed more rehabilitation capacity)	[143]
	Glomus mosseae and G. deserticola	Eucalyptus globulus	Promoted overall growth, mineral nutrition, chlorophyll production and enzymatic performances (which further increased due to synergistic effect of <i>G. deserticola</i> and <i>T. koningii</i>), enhanced Pb accumulation	[146]
Aluminium	Pisolithus sp.	Schinusmolle	Phytoextraction or phytostbilization, Glomalin production supported chelation, rise in photochemical efficacy	[147]
	R. irregularis	Zea mays	Increased accumulation of total phytochelating content in shoots	[148]
	Funneliformis mosseae; R intraradices	Capsicum annuum	Cu Higher total dry weight and the leaf	[149]
	Arbascular Mycorrhizal Fungi (AMF)	Elsholtzia splendens	Increase in germination rate and the germination index of the seeds as well as the fresh weights of hypocotyl and radicle	[150]
Copper (Cu)	Claroideoglomus claroideum	Oenothera picensis	Protect plant from metal toxicity, enhance both plant establishment and nutrition Stress tolerance via un-regulating photo	[151]
	R. irregularis	Phragmites australis	systems membrane complexes, improved plant growth.	[152]
	Rhizoglomus clarum	Canavalia ensiformis	Alleviated amounts of Cu due to phytoextraction in addition to earthworms	[153]
	Rhizophagus clarus	Canavalia ensiformis	Alleviated amounts of Cu due to phytoextraction & phytostabilization in addition to bovine	[154]
	Claroideo glomu sclaroideum and	Oenothera picensis	Cu chelation with AM-secreted glomalin protein	[155]
	Glomussp.,Gigaspora sp. &Skutelespora sp.	Cyperus kyllingia, Lindernia crustacea, Paspalum conjugatum	P. conjugatum resulted maximum phytoextraction, while C.kyllingia exhibited maximum (Hg) tolerance	[156]
Mercury (Hg)	Native AM fungal morphotypes	Axonopus compressus, and Erato polymnioides	A. compressus ensued phythoextracting; Eratopolymnioides–Hg phytostabilization	[157]
	AMF	Lolium perenne	Decreased shoot:root (St:Rt) (Hg conc.), increased metal assimilation in roots	[158]
Nickel (Ni)	Funneliformis mosseae (also named as Glomus mosseae)	Festuca arundinacea	Enhance expression of ABC transporters and metallothione induced metal intoxication, decreased metal translocation	[159]
	Acaulospora sp. (indigenous)	Canavalia ensiformis		[160]
	AMF mix	Lens culinaris	Alleviated uptake by roots and shoots as an effect of mycorrhizal association	[161]
	Rhizophagus intraradices (formerly named G. intraradices)	Plantago lanceolata	Down-regulating phosphate/arsenate transporters could assist plants to enhance the As tolerance	[162]
Arsenic (As)	Rhizoglomus intraradices & Glomus etunicatum	Triticum aestivum	Regulated P/As ratio, enhanced antioxidant production, holding As into non-toxic forms via increased production of biopolymers	[108]
	Rhizoglomus intraradices	Robiniapseudoacacia	Induced changes in root morphology, increased shoot-root dry weights, controlled phyto-hormone concentration etc.	[108]
	Acaulospora scrobiculata	Anadenantheraperegrina	rates, As concentrations in the roots and shoots.	[109]

Pollutant	Mycorrhizal Species	Plant Species	Possible Mechanism	Literature Cited
	Funelliformis mosseae and Piriformos poraindica	T. aestivum	Biomass uplift, imposed catalytic activities for G-SH transferase, catalase, peroxidase etc., and antioxidant genes upregulation	[163]
	Glomus intraradices	Zea mays	Mycorrhizae in association with biochar resulted alleviation in Cd accumulation in plant and restricted mobilization, soil rehabiliation	[164]
	Glomus monosporum, G. clarum, Gigaspora nigra, and Acaulospora laevis	Trigonella foenum-graecum	Decreased St: Rt Cd ratio, enhanced antioxidant activities	[165]
Cadmium (Cd)	Rhizophagus irregularis	Phragmites australis	Immobilization of Cd in roots, increased mineral uptake (Mn& P mainly) to survive Cd-toxicity	[166]
	Glomus intraradices, Glomus mosseae, Glomus claroideum, and Glomus geosporum	Nicotiana tabacum	Phyto stabilization of lead via immobilization in extraradical mycelial network	[167]
	Glomusmosseae	Cajanus ajan	Diminished oxidative disturbances (free radicle formation), high non-protein thiols (-SH) production and high antioxidant activities	[168]
	Claroideoglomus etunicatum	Sorghum bicolor	Increased the glomalin content for improved soil, Cd stabilization in mycorrhizal roots &phytoextraction (by shoots), high nutrient uptake	[169]

Table 3. Cont.

5.5. Potential Applications in Phytoremediation

Heavy metal accumulation (Pb, Cd, Hg, Al, Cu, Zn, Cr, etc.) in soil due to natural or human activities has been a serious and persistent environmental threat [143,145,147,158,170]. Owing to their non-degradable nature, these toxic substances pollute the natural resources and the food chains which ultimately reflects adverse effects on the atmospheric, aquatic as well as terrestrial ecosystems. Various chemical and physical remediation techniques are there to overcome the negative effects of heavy metals, while bio-remediation techniques have proved to be more promising in terms of cost-effectiveness and maintaining the soil fertility (by preventing serious soil degradation) [72,122,123]. Some of these heavy metals can be excreted from the body, while others accumulate successively depending upon the exposure, dosage, route, etc. and exhibit chronic behavior [170]. Ubiquitous distribution and abundance of Pb has been one of the hazardous effects on the environment, imposing serious harm to plant growth [146]. Some plant species survive in the presence of heavy metals in the soil, which specifies the presence of some expanded mechanistic approach to adapt in such polluted environments, also called phytoremediation. These plants are designated as hyper-accumulators due to this promising characteristic of accumulating high amounts of heavy metals within the tissue [171,172]. Plants involved in detoxification of soil pollutants usually show sluggish growth, taking a longer time in soil cleaning. While, in combination of mycorrhizal symbiosis plants exhibit a high growth rate, increased biomass, phytochemical activities, and therefore, eradication of soil pollutants at a high rate [173]. However, heavy metals as soil contaminants also hamper colonization and spore formation of mycorrhizal fungi due to increment in root exudate production that limits the supply of carbon sources to the fungal symbionts [174,175]. Mycorrhizal association improves phytoremediation efficiencies. The plant species undergo biological modifications such as increased upward translocation of essential minerals (Zn/Cu) and holding harmful metals (Pb/Cd) in the roots to protect the plant which allows them to survive in extreme abiotic stress [9]. There have been some mechanistic behaviors signifying the removal of toxic substances: metal ion immobilization within mycorrhizal structures; blocking the metal uptake by conversion into non-toxic or ineffective complexes in rhizosphere via chelation, bonding with other biomolecules and precipitation; segregation inside the mycorrhizal

vacuole or arbuscules; cytosolic accumulation using biopolymers; stimulating or enhancing antioxidant activities to prevent cellular damage; use of membrane transporters towards or against the concentration gradient for metal translocation; metal ions diffusion to an alleviated response; enhancing nutrient flow to the host; increasing enzymatic efficiencies of soil; stimulating root exudation and up-regulating rhizospheric activities [147,167,169,176]. Further, the impact of mycorrhizal association with hyper-accumulating plant species on phytoremediation efficiencies is depicted (Table 3).

5.6. Enhanced Biological Produce and Agricultural Profitability

Myc-association plays a vital role in managing sustainable plant growth, in addition to improved responses to changing and stressful environmental conditions. As evidenced, the applications of different mycorrhizal species such as *G. coronatum*, *G. mosseae*, *G. decipiens* have been reported for their increased biological yield (cobs per plant, grains, in maize) [110]. Also, these associations have shown enhanced nutritive values through the production of organic (sugars, amino acids) and secondary metabolites (flavonoids, carotenoids, phytochemicals, and volatile organic complexes) [95,111,116,133]. They are responsible for the enhanced C and N fixation, soil fertility, and texture, high food storage, thus a cost-effective approach for the farmers [3]. Another significant factor is the quality yield production, which has been also reported to be enhanced and accompanied by myc-fungi inoculation [81,116,134]. Based on the reported facts, soil microbiota directly influences agricultural profitability [105].

6. Future Prospects

The majority of world flora is associated with the mycorrhizal interactions which contribute to the nutritional or non-nutritional benefits to the host. Based on a systematic literature survey, it can be concluded that mycorrhiza are the key regulators of sustainable ecological performance and contribute to the global flora conservation. To overcome the negative effects of stressful environments, a wide range of mycorrhizal community such as Funneliformis mosseae, Rhizophagus irregularis, Glomuse tunicatum, Glomus intraradices, Glomus mosseae, Acaulospora scrobiculata, and Claroideoglomus etunicatum etc. have been observed to successfully mitigate detrimental effects by stimulating the plant's defense system. Mycorrhizae, in response to biotic or abiotic stresses, persuade various plant mechanisms such as the activation of defensive proteins (glomalin), toxins (phenolics and alkaloids), hormonal homeostasis, antioxidants (glutathione, carotenoid), and volatile compounds production (prevents from pathogenic attack) etc. The mechanistic approach behind these effects has been described as (a) the elevated uptake of mineral salts (due to activation of plant and fungal transporter proteins present in the epidermis, root hairs, PAM and extraradical hyphae, respectively; (b) up-regulation of phytohormones; (c) induction of aquaporin genes for increased water uptake; (d) dilution of heavy metal toxicity by increased plant biomass; (e) osmoregulation by producing sugars and amino acids; (f) photosystem (PS) improvisation, etc. Additionally, considering their role in the rehabilitation of contaminated soil, increased soil fertility, stress tolerance or mitigation, improved biological produce, activation of beneficial soil microflora, etc., a huge commercial revenue can be obtained in agricultural terms. While phytohormones are well known to regulate the plant root system and increase stress resistance, their role and action mechanism involved in controlled symbiotic association still needs to be explored. In addition, species' richness of these symbionts and specificity with the host is lesser known due to studies carried out with a limited number of myc-species. Therefore, further studies towards complete understanding of diverse mechanisms underlying mycorrhizal symbiosis are yet to be conducted. In addition, investigation towards the synergistic effects with other microbial moieties can have a great impact. Moreover, the inclination towards ecological habitats is quite diverse, which is of greater interest to the ecological investigations. Transcription and functional analysis have, up to a certain extent, improved the basic understanding of the association between both partners and the taxonomic classification of the mycorrhizal moiety.

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Although the molecular profiling of mycorrhizae has elevated in the last decade, further investigations are required for a better understanding of developmental and functional molecular strategies associated with mycorrhizal association in plants.

Author Contributions: Conceptualization, M.M.S. and M.D.; methodology, M.D., L.S. and M.M.S.; validation, M.M.S., P.K. and A.S.; formal analysis, M.M.S., P.K. and A.S.; investigation, M.D.; data curation, M.D.; writing—original draft preparation, M.D.; writing—review and editing, M.D. and M.M.S.; supervision, M.M.S.; project administration, M.M.S. and A.S.; funding acquisition, M.M.S. and A.S. All authors have read and agreed to the published version of the manuscript.

Funding: This research was funded jointly by NMPB (Govt. of India) and Manipal University Jaipur (research project vide Pr. No. R&D/RAJ03/201-17); UGC, India (SRF fellowship).

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Acknowledgments: The authors express gratitude to University Grants Commission, New Delhi, India, for financial support (in the form of SRF) sanctioned to Mamta Dhiman; National Medicinal Plants Board, Ministry of AYUSH, New Delhi, Government of India, and Manipal University Jaipur for financial support in the form of research project (vide Pr. No. R&D/RAJ03/201-17); and infrastructural support by MUJ.

Conflicts of Interest: The authors declare no conflict to interest.

Abbreviations:

VAM, vascular arbuscular mycorrhiza; rRNA, ribosomal ribonucleic acid; PAM, periarbuscular membrane; AMF, arbuscular mycorrhizal fungi; ECM, ectomycorrhiza; Myc, mycorrhizal ABA, Abscisic acid; Et, Ethylene; GA, Gibberellin; JA, jasmonic acid; SL, strigolactone; SA, salicylic acid.

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REVIEW



Anogeissus Species in Rajasthan (India): A Comprehensive Review on an Unexplored Plant

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Received: 16 July 2021/Revised: 12 October 2021/Accepted: 18 February 2022 © The National Academy of Sciences, India 2022

Abstract Genus Anogeissus of the family Combretaceae is widely distributed in Asia and Africa. In India, this genus includes five species namely A. acuminata (Guill. and Perr., A. latifolia Wall ex Guill and Perr., A. pendula Edgew., A. sericea var. sericea and A. sericea var. nummularia King ex Duthie. In Rajasthan, all five species are present out of which three (A. latifolia, A. pendula, and A. sericea var. nummularia) are of immense importance. These three species are economically advantageous due to their fuel, fodder and timber value. A. pendula regarded as the third toughest timber in the world. A. latifolia is known for its Ghatti gum, as a substitute for gum Arabic and uses for treatment of fever; wound healing, snake and scorpion bite, etc. A. sericea included in red data book of Indian plants is a rare and endemic species of Indian desert which has been extensively overexploited, the narrow extent of occurrence, and very low natural regeneration due to lesser viability causes the species to face severe conservation threat. The present review focuses on distribution, botanical description, economic importance, natural growth constraints, conservation status, and scientific efforts for

Significance Statement The review comprised the details of genus Anogeissus and discusses their distribution, botanical description, economic importance, natural growth constraints and conservation status. Also present the scientific efforts made for developing regeneration protocols and government initiatives for their conservation in situ and ex situ.

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developing regeneration protocols and most importantly the government initiatives for their conservation on site and off site.

Keywords Propagation · *Anogeissus* · Conservation · Rajasthan · Seed-viability

Introduction

Anogeissus (Combretaceae) genus comprises species of arid and semi-arid areas producing timber, fuelwood, fodder, and gum [1]. The present review included three species (A. pendula, A. latifolia and A. sericea) of genus Anogeissus which are economically, ecologically, and ethnomedicinally important in different regions of Rajasthan [2]. According to published report Udaipur, Nagaur, Chittorgarh, and Pratapgarh are four districts of Rajasthan where these species are available for sampling [1]. Among these three species, A. pendula and A. latifolia found in eastern slopes of the Aravalli ranges, present in four districts (Alwar, Bharatpur, Udaipur, and Dholpur). A. sericea var. nummularia King ex Duthie measured as endemic species of Rajasthan and Gujarat included in red data book of Indian plant [3]. Various sites in southern Rajasthan for A. sericea var. nummularia like Banswara, Bhilwara, Chittor Garh, Dungarpur, Partapgarh, Rajsamand, Sirohi, Tonk, and Udaipur were identified [4]. These mentioned species of Anogeissus are widely exploited multipurpose tree species of the Indian desert used for fodder, charcoal, gum production, and furniture manufacture [5]. The regeneration and exploitation rate are not balanced; therefore, two out of three (A. sericea and A. latifolia) are rare in their natural stands and A. pendula may face same problem in the upcoming time. Forest tree species that are

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threatened, endemic, and rare are conserved by mass propagation or unconventional methods to prevent these economically viable species. This review describes rapid and efficient methods to increase propagation of these rare taxa of Rajasthan and also discusses about various factors affecting them. Species of Anogeissus are commonly used as ethnomedicines in Rajasthan by the Garasia tribes and communities. Gum produced from A. latifolia is used in the form of laddu to get relief from back pain after the delivery and to use as a remedy for the damaged tissue [1]. Other medicinal uses are in gastric disorders, skin diseases, wound healing, diabetes, diarrhea, and dysentery [1, 2]. Despite medicinal uses, these forest tree species are also important in ecological aspects (Tables 1 or 2). The wood of these species are immensely important and used in agricultural equipment formation, hut formation, as fodder, and as source of fuel.

Based on the available literature on these species, *A.* sericea has been overexploited for different commercial purposes (for production of agricultural implements and furniture manufacturing) [2, 5]. *A.* sericea has been assigned the status of 'endangered (EN)' and *A.* latifolia 'threatened (T)' due to biological uses of resources and excessive use for agriculture equipment's formation [2]. Therefore, the objective of this review is to status of these

important species of Aravallis range of arid and semi-arid region.

Material and methods

A thorough literature review was carried out using a variety of peer-reviewed research publications gathered from a variety of internet sources such as Google, ResearchGate, Scopus, Google Scholar, Springer Link, Elsevier, Taylor & Francis imprints, and others. Other resources, including book chapters and web pages, were also evaluated in order to gather as much information as possible about the efficient utilization of Anogeissus species. Several published investigations like- "A critical review on Anogeissus pendula: an important species of arid zone" looked into the significant use of this species in fuel fodder and timber. Online database searching involved the following keywords: Anogeissus sericia var nummalaria, Anogeissus latifolia, Anogeissus pendula, economical importance, ethnobotanical importance, endangered, threatened, critically endangered species, natural regeneration, protocols. Government initiative and conservation steps data collected from different plant conservation board and agencies database system.

Table 1 Comparison of characteristics of major species of genus Anogeissus occurs in Rajasthan [6, 8]

	1	J I E 0	5 6 3	
Sr. no.	Character	A. sericea var. nummularia King ex Duthei	A. pendula	A. latifolia
1	Habit	Moderate size to large trees	Shrub or small trees (9-15 mts)	Small to medium-sized (20 m)
2	Young branch and bark	Tarnished glossy in appearance, non-drooping	Smooth and silvery grey bark, pendulous	The bark is smooth white grey, drooping
3	Leaves	Alternate and many	Opposite or near opposite	Sub opposite
	a)Apex	Blunt and obtuse	Narrow at both ends, acute	Obtuse
	b)Shape	Orbiculate or sub orbiculate Less than 2 cm long	Elliptic	Ovate to elliptic
	c)Size		1–2 cm long Soft and silky with silvery hairs	5–6 cm long Upper surface smooth lower pubescent
4	Flowers	Axillary or terminal	Axillary or terminal	Axillary or terminal
	a)Shape	Globose	Tiny flowers aggregates to form a	Dense sessile flowers form a
	b)Colour	Yellow to brownish-yellow	spherical head (8–14 mm diameter)	globose head
				Yellow
			Greenish-yellow	
	Calyx	Companulate calyx, pubescent form a cup-like structure, semi-persistent, calyx tube compressed 3–4 mm long	Cup-shaped and prominent	5 sepals form a connate tube
5	Stamen	Exserted, projecting beyond the calyx tube	Present in all-round directions	10 stamens arranged in 2 rows
6	Fruits	Spiky wings on fruit, glabrous	Flat, circular, small, one-seeded, 2 wings present	1 seeded 2 winged, calyx tube persistent packed in a dense head

Sr. no.	Anogeissus species	Parts used	Uses	References
1	A. latifolia	Wood	•House construction	[12–14]
		(Timber)	•Making fuel and agricultural implements	
2	A. pendula	Wood (Timber)	•Used in agricultural implements such as axles and shafts	[14–16]
3	A. sericea var. nummalaria	Wood (Timber)	•Wood is useful in making agricultural equipment	[11]
4	A. latifolia	Leaves	•Juice is given in purulent discharges from the ear.	[10, 12]
			•Leaf juice is useful in otopyorrhea	
5	A. pendula	a Leaves	•Produce dark green dye.	[17]
			•Contain tannin, used in the tanning industry.	
			•The paste is used in swelling externally.	
6	A. sericea var. nummalaria	Leaves	•Leaves paste is applied for wounds for 3-5 days.	[3]
			•Use in typhoid.	
7	A. latifolia	Bark	•Useful in diarrhea, dysuria, cough, colic, liver complaints, snakebite, pain inflammation and skin diseases	[1, 18, 19]
			•The bark is remedy for chronic cough called 'Dangya Khokala'	
8	A. pendula	Seeds	•Haemagglutinatig properties against the human A, B, and O red cells	[14, 16]
9	A. latifolia	Roots	•Useful in abdominal disorders	[12]
			•Stomachic and thermogenic.	
10	A. pendula	Aerial parts	•Used for diabetes	[20, 21]
			•Diuretic and cardiovascular stimulant potential.	
11	A. latifolia	Gum	•Consumed generally as a tonic and after delivery	[1]

Table 2 Economical and medicinal uses of different parts of A. latifolia, A. pendula, and A. sericea var. nunmalaria

Distribution in Rajasthan

Total 11 species under the genus Anogeissus are reported, and they are majorly distributed in the region of Arabia, South East Asia, and Africa. This genus is a group of three important multipurpose species, namely A. latifolia, A. pendula, and A. sericea var nummalaria [6]. A. pendula Edgew., locally known as Kardhai, is distributed throughout tropical Asia and Africa. Further, it is distributed in many parts of Rajasthan, particularly in Ajmer-Marwar forests and at Abu in the southwest end of Aravalli hills. This species is also a dominant tree of the Aravalli hills of Rajasthan where it forms a pure forest. The main species found in this kind of forest are A. pendula, A. latifolia. These forests are mostly distributed in small patches in different parts of the northern and eastern slopes of the Aravalli ranges, accessible in Alwar, Bharatpur, Udaipur, and Dholpur districts (Fig. 1). Patchy growth of these species of dry deciduous forests is found along the dry riverbeds of Jalore, Nagaur, Pratapgarh, Chittorgarh Ganganagar, and Bikaner districts [4]. A. sericea var. nummularia King ex Duthie is endemic species. It is also popular with the name Indrokiya. Indrok is considered as the threatened plant species of arid and semi-arid regions of India. It is majorly found in the Gujarat, Rajasthan, and Punjab regions of India [7]. In Rajasthan, during the botanical explorations, the species *A. sericea* var. *num*-*mularia* King ex Duthie was observed in specific districts of southern like Banswara, Bhilwara, Chittor Garh, Dun-garpur, Partapgarh, Rajsamand, Sirowhi, Tonk, and Udai-pur (Fig. 1) [2]. Dry Tropical deciduous type of vegetation is the characteristic feature of the region which includes some important plant species like *A. latifolia* (Roxb. ex DC.) Wall. Ex Guill and Perr., *A. pendula* Edgew, *Balanites aegyptiaca* (L.) Delile., *Boswellia serrata* Roxb., *Diospyros melanoxylon* Roxb., *Madhuca indica* J.F. Gmelin, *Tectona grandis* Linn. f., *Terminalia arjuna* (Roxb. ex DC.) Wight and Arn. etc. [1].

Botanical Description

Genus *Anogeissus* involves shrubs, small-to-medium height trees having pendulous or non-pendulous branches that bear alternately or oppositely arranged petiolate leaves. Flowers, solitary, or racemose born on axillary or terminal peduncle in such a manner that inflorescence appears as the globose head [6]. This dense structure has numerous, small, winged fruits packed in it. These characters are similar in the species which are prominent in



Fig. 1 The distribution of the various species of Anogeissus such as A. sericea, A. penduda, and A. latifolia in different districts of Rajasthan

Rajasthan, i.e., *A. latifolia*, *A. pendula*, and *A. sericea* var. *nummularia* [8]. However, these species can be distinctly identified from each other by the characters explicated in Table 2.

Economic Importance of Anogeissus Species

Leaves and bark of A. latifolia are used for tanning. A. latifolia is also called as the "Ghatti tree" due to the production of "Indian Gum" or "Gum ghatti" which is a nonstarch polysaccharide economically viable as an emulsifier [9]. It has been observed that ethanolic extract of A. latifolia's bark help in hastening of wound healing. Its bark is used for the treatment of fever by natives in Udaipur and its paste is applied on scorpion sting by the tribal communities wildlife residing in the sanctuary of Gundlabranhmeswaram. Bark also has medicinal value as a sedative and helps in the treatment of hypertension [10].

The foliage of *A. pendula* can be used as fodder for livestock. Also used as fuel and yields timber, which is considered as the third toughest timber of the world and thus valuable [7]. *A. sericea* var. *nummularia* wood is useful in making agricultural equipment and huts by tribal communities. Report shows that leaves of *A. sericea* used in typhoid and also applied on wounds [11].

Growth Constraints

Three species of genus *Anogeissus* (*A. sericea* var. *num-mularia*, *A. latifolia*, and *A. pendula*) are widely exploited in the arid and semi-arid regions of Rajasthan due to their immense uses as fodder, charcoal, agriculture equipment's formation, and furniture manufacture [9, 10, 18]. These tree species are beset germination frequency is (0.1–0.2%). Seed viability of *Anogeissus* species declines with time period results in low seed germination. The main reason of low seed germination frequency in *A. pendula* is

production of infertile seeds, in A. latifolia seeds are about 95% empty at the time of collection. This emptiness /infertility are responsible for 1-2% seed germination and in A. sericea var. nummularia seed viability is very low (0.1–0.2%) [22, 23]. Therefore, natural regeneration through seeds is not suitable or reliable. Vegetative propagation through rooting approaches is not available yet for these species due to their inherent regeneration difficulties. Regeneration and exploitation rate are not balanced, lead to these species rare in their natural stands due to low seed viability for these species (A. pendula-0.2-0.4%, A. sericea-0.1-0.2 %, A. latifolia-0.1%) [24]. Taking into the consideration economic importance of these forest tree species and the absence of essential conventional methods of propagation, it would be extremely important to develop in vitro procedures or tissue culture-based methods for mass multiplication of important forest tree species.

Conservation Status

Anogeissus latifolia

A. *latifolia* (Roxb. Ex. DC) Wall. Ex Guill and Perr. is one of the threatened species that need to be conserved. The tree yields good fuelwood and charcoal, its foliage is used to feed silkworms and cattle's and it's the main source of Indian gum, Ghatti gum which is used as an alternative for Arabic gum used in dye production [9]. *A. latifolia* is the survivor of the eroded land which helps in controlling soil erosion and sustains the soil nutrient cycling. The litter decomposition rate is high thus helping in the enrichment of the soil.

Possible Reasons for Becoming Threatened

a) Seed Viability

Generally, seed viability is low (0.1%) but it can be increased after a very dry season. Only full mature seeds are capable of germination [23].

b) Insects and Pest

The tree is prone to pest attack like stem borers such as *Olenecamptus anogeissus* and *O. indianus*. Sapwood gets infected due to ectoparasitic fungi as *Sarcinella combratcearum*.

iii) Anthropogenic Activities

Due to intensified anthropogenic activities, and low seed viability, the rate of regeneration is low in comparison to the pace of the utilization [25]. If the exploitation of *A*.

latifolia continues at current rate then this species may be extinct in near future.

Anogeissus pendula

A. pendula is a multipurpose plant. The quality of the fuel, timber, fodder, and value of its foliage make this species important in every aspect of livelihood. Timber is used for production of agricultural implements. The study reveals that *A. pendula* help in maintaining the balance of species in its community as it suppresses the shrubs like *Grewia flavescens* and *Adhatoda zeylancia*. The litter fall of the plant is immense and thus helps in organic matter formation and maintaining the fertility of the soil [21].

Possible Reasons for its Depletion

a) Low Seed Germination

The plant is used extensively but the major problem with replenishment is its low germination frequency which makes its propagation difficult in addition to the fact that's only 5% of seeds are viable out of the whole percent which supports that infertile seeds are a drawback for the successful depression [23].

b) Invasion of Other Species

Its growth is directly affected by the insects and pathogenic fungi known as *Corynespora* compete, defoliator like *Eutectona machaeralis* are responsible for extensive defoliation of the species [9].

The extensive use and slow rate of germination may create its scarcity shortly may lead the plant to be involved in the threatened categories as the other two species mentioned in this review.

Anogeissus sericea var. nummularia

A. sericea var. nummularia King Ex. Duthie falls under the category of threatened and rare species and also endemic to the region of its occurrence. Leaves are used to feed live-stock [26].

Possible Reasons for its Decreasing Population

a) Anthropogenic Pressure and Low Regeneration

Continuously increasing Anthropogenic pressure (use of stem for preparation of huts and increasing industrialization), resulting in extinction risk of the species and its very low regeneration rate is the reason species facing severe conservation threat [24].

b) Grazing

Fodder present in this region is insufficient to feed livestock, grazing is also a seemingly unavoidable concern that leads to a decrease in the plant populations [9].

iii) Invasion of Other Species

The invasion of other species impacts the distribution of the *A. sericea* species. And the pressure for other such species (*Prosopis juliflora*, *Lantana camara*, and *Parthenium hysterophorus*) allelopathy effects leads to the smallest distribution of *A. sericea* in Rajasthan [2]. These all threats in conjunction put excessive pressure on the species pushing it to the belt of endangered.

These need to be raised and planted further to ensure a good population in their ecosystem either by or in-situ conservation strategies.

Scientific Efforts for Replenishment

Due to lacking natural propagation methods, the role of the scientific community is to develop the commercially viable propagation protocol and forest departments should ensure the good population of these plants by raising the seedling and planting them in forest. A protocol has been successfully developed for the large-scale production of A. pendula and A. latifolia by axillary branching method at Tata Energy Research Institute, Delhi by Sanjay Saxena and Vibha Dhawan [23]. This protocol produced almost 56,0000 tissue cultured plantlets of both species which were successfully planted by state forest department. Similarly, S.K Tiwari et al. tried to use stem branch cutting and standardized the technique by using different concentration of IBA [23, 27]. A very well documented protocol for *in vitro* propagation of A. sericea var. nummularia has been provided by A. Yusuf for mass propagation of this rare tree at plant Biotechnology laboratory, J.N Vyas University. Jodhpur [24].

Government initiatives for ex-situ or in-situ conservation of species of *Anogeissus*.

Besides scientific efforts, awareness and involvement of native people is mandatory for the depleting *Anogeissus* species. Establishment of more biosphere reserves, National parks, and Wildlife sanctuaries is the key for the protection of state biodiversity. Based on convention on Biological diversity, steps are already been taken like in Southern Rajasthan *Anogeissus* species conserving sanctuaries are established [4].

A. latifolia present in all nine sanctuaries, whereas A. pendula present in eight except Phulwari sanctuary, which is second largest of the state. A. sericea var. sericea is restricted to three sanctuaries in Udaipur and Sirohi district. Sajjangarh, Jaisamand, Kumbalgarh, and Raoli are richest sanctuaries having four Anogeissus species out of five, whereas Sitamata, Bassi, Bhensroadgarh, and Mount Abu have only three. Foundation of ecological security (FES) has also been set up which enables the eco-restoration in association with village communities and collect ecological data for conserving the biodiversity of the protected areas. Other initiatives required are mapping of biodiversity, mapping of status of threatened species richness, forming conservation actions plans, and monitoring for their execution. For ex-situ conservation germplasm can be preserved in seeds banks or establishment of Botanical gardens may help. All these measures need support from government to be implemented.

Conclusion

In this review, we have made an effort to explore some important species of genus Anogiessus and provide information on their distribution in Rajasthan, botanical description, and their economic importance. Even though Anogeissus genus represents 11 species in Asia and Africa, but as mentioned earlier we conclude only three important species, which are distributed in different districts of Rajasthan. Studies were done on these species due to the various wide ranges of reported ethno medicinal and economical uses in different districts of Rajasthan. These species are as A. pendula, A. latifolia and A. sericea are under threat due to over-exploitation for different commercial purposes. These species are used for their fodder, timber, gum, and tanning along with their ethno medicinal uses in tribal communities of Rajasthan. The present review revealed that the most commonly used plant parts, leaves, and stem followed by the gum, seed, root, and its bark. The published report depicts that the traditional mode of use is decoction followed by juice and paste of leaves. Dependency on the products of these species for their daily needs is most prominent which is directly disturbed by the loss of trees. Some studies also show the biotic disturbances, mainly from the overexploitation of tree resources for their fuel and fodder. After reviewing these plants in natural environment, it can be concluded that due to over utilization, these plants are decreasing at fast pace in contrast to the reproduction and it's unavoidable to support their existence by equal efforts of scientific community and government of Rajasthan in collaboration with native people.

Acknowledgements The authors wish to thank Dr. Devendar Bhardwaj RFS, Chief manager technical (retd.) (Rajasthan forest training institute) for his advice and assistance during the course of review. Authors also gratefully acknowledge the facility provided by the Department of Biosciences, Manipal University Jaipur.

Declarations

Conflict of interest All authors declare that they have no conflict of interest.

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Manipal University Jaipur Facilitate Events for Local Farmers and Food Producers

Manipal University Jaipur is a hub of innovation, knowledge exchange, and community engagement. One way in which Manipal University Jaipur fosters community connections is by hosting events that bring together local farmers and food producers. These gatherings not only serve as platforms for networking but also facilitate the transfer of knowledge and sustainable practices. Manipal University Jaipur is bridging the gap between academic expertise and local agriculture through such events.

Local farmers and food producers often face challenges related to sustainable farming practices, market access, and technology adoption Manipal University Jaipur acts as a knowledge hub, sharing research-backed solutions and best practices with these stakeholders. Manipal University Jaipur is building strong ties between academia and local communities which are essential for sustainable development. These connections create a sense of shared purpose and encourage collaboration. Supporting local agriculture and food production contributes to regional economic growth by bolstering small businesses and strengthening the local food supply chain.

Manipal University Jaipur hosts farmer's markets on campus, providing local farmers and producers with a direct sales outlet. These markets not only showcase fresh produce and artisanal goods but also serve as a platform for engagement. Manipal University Jaipur organizes workshops, seminars, and training sessions focused on agricultural best practices, sustainable farming techniques, and food safety standards. (Annexure 1) These events are often led by experts from the university faculty. Manipal University Jaipur creates networking opportunities, such as meet-and-greet sessions, where farmers and food producers can connect with students, researchers, and industry professionals. Manipal University Jaipur partners with local farmers and food producers on collaborative research projects, providing real-world solutions to challenges faced by the agricultural community. (Annexure2,3,4,5&6)

Farmers gain access to the latest research findings and expertise, helping them improve their farming practices and productivity. By promoting sustainable farming practices, Manipal University Jaipur contributes to environmental conservation and food security in the region (Annexure 7). Supporting local agriculture and food businesses stimulates the local economy, creating jobs and increasing the availability of fresh, locally





sourced products. Strengthening ties between the university and local agricultural communities enhances community resilience by addressing common challenges and fostering a sense of shared responsibility.

https://www.youtube.com/watch?v=FVsnhJShXr8



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- 1. Introduction of the Event
- 2. Objective of the Event
- 3. Details of the Guests
- 4. Brief Description of the event
- 5. Photographs
- 6. Brochure or creative of the event
- 7. Schedule of the Event
- 8. Attendance of the Event
- 9. Feedback of the Event
- 10. Correspondence Letter and Certificates

1. Introduction

Humane Society International/India is a non-profit organization working for the protection of all animals - farm animals, animals in laboratories, wild animals, and companion animals through advocacy, education, and hands-on programs. Globally, HSI has worked with over 500 institutions to develop, adopt, and implement animal welfare policies in their supply chains. The institution conducts plant-based awareness programs in schools and colleges across the Indian sub-continent, calling for more sustainable and humane consumption patterns.

Millets are the cereal grasses and are used as cereal crops and grains for human and animal consumption. The awareness about the goodness of millets are not much known to the people.

2. Objective of the Event

The areas of addressing via plant-based culinary workshop cum training webinar session will be-

- 1. The significance of plant-based industry for culinary and hospitality students & staff.
- 2. Animal welfare and HSI/India farm animal as well as plant-based policy work.
- 3. Plant-based diet patterns and millets an embellishing source of nutrition.



- 4. Innovation and development skill requisition for culinary and hospitality academic students.
- 5. Assignment at the end of day 1 to access learning outcome and prior understanding for training session on the day 2.
- 6. Plant-based recipe execution and food culture training.
- 7. Q&A for brainstorming participants and resorting their queries with burgeoning plant nutrition industry.

3. Details of the Guests

a) Mr. **Raven Edward Joseph**, Institutional Meat Reduction Campaigner, Eat Kind India Campaign. HSI-India. (E): <u>rjoseph@hsi.org</u>, P- 902-474-8313

b) Chef Varun Sharma, Founder – Bodhi Greens: The organic vegan café, Dharamshala

c) Mr. Siddharth Sharma, Assistant Manager, Institutional outreach, Eat Kind India Campaign. HSI-India

4. Brief Description of the event

This AY is celebrated as International Year of Millet. Based on the guidelines sent by UGC to all HE institutions, School of Hospitality and Tourism Management of Manipal University Jaipur had organized a 2-day culinary workshop titled 'Millets an embellishing source of plant-based nutrition' on 10th and 11th May 2022. The webinar was held online on Zoom platform. The workshop was conducted in collaboration with the Humane Society International – India.

Total participants were 179 of students and faculty members of hotel management department from MUJ (101) and other institutions (78). The session enhanced the information about millets and how this corps may substitute the animal source. The resource persons demonstrated the various uses of the millets and the role it can play in providing nutrition for humans. The chef demonstrated various preparation of dishes out of millets. The 2-day session ended with vote of thanks by Ms Nionica, student of BHM program of MUJ.

5. Photographs/ screenshots of the event



1 Screenshot of the session



2 Screenshots of slides



3 Screenshot of question answer session



6. Brochure or creative of the event



International Year Of Millets
Plant-based workshop: Millets An Embellishing
Source Of Plant-based Nutrition
With Chef Varun Sharma (Owner, Bodhi Greens)

Date: 10th & 11th May, 2022 Time: 10 AM to 1 PM Platform: Zoom

4 Brochure

7. Schedule of the event

Day 1: 10th May 2022

10:00 am to 10:20 am

- Humane Society International/India Introduction.
- Why/How we do, what we do

By Siddharth Sharma (Assistant Manager, Institutional outreach, Eat Kind India Campaign)

10:20 to 10:30 am: Q/A with Siddharth

10:30 am to 11:45 am: Webinar By Vegan Chef and Entrepreneur Varun Sharma from Bodhi Green Organic and Vegan restaurant

11:45 am to 12:30pm: Q/A with Chef Varun

DAY 2: 11th May 2022

10:00am to 12:30pm: Live cooking demonstration by Chef Varun (Simultaneous Q/A with attendees)

12:30pm to 1:00pm: Vote of Thanks

Join Zoom Meeting: https://hsi.zoom.us/j/99075561928?pwd=UDE0MTRYak96UldvNVNhZ1BVYXJydz09#suc cess


8. Attendance of the Event Total attendee – 179 {101: MUJ + 78: other institutions *(highlighted)*}

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9. Feedback of the Event

The session was interesting and will benefit the student's learnings about the database. It will also help the students who wishes to become researchers. Similar views were also expressed by the students after the session was completed.



10. Letter of Correspondence and Certificates

Manipal University Jaipur
Registrar Office Recid on: 5-5-22 Sr.No. 100.5
Signature

Note sheet

Sub: A 2-days online workshop on "Millets an embellishing source of plant-based nutrition" to celebrate International Year of Millet

- In reference to the UGC notification for HEIs to observe year 2022-23 as "International year of Millet", the School of Hospitality and Tourism Management, MUJ has organized the abovementioned workshop in association with Humane Society International (HIS).
- The scheduled date of the workshop is on 10th -11th May 2022, from 10 am 1 pm, and it will be conducted online.
- The workshop includes live culinary demonstration of dishes that include millets as a plantbased nutritious food and further how these may substitute meat-based dishes.
- The workshop is co-hosted by MUJ and HIS and other students of HM institutions will be . invited to participate.
- The entire workshop is sponsored by the HIS and hence there is no financial requirement from MUJ's end.
- Placed for approval, please.

Amit Datta, HoD, SHTM

ond . DI Dean

Registrar, MUJ

Dr. Amit Datta [MU - Jaipur]

	Subject:	<u></u>	<u>, </u>	sent:	From
training and workshop.	RE: [EXTERNAL] RE: Query resolution and discussion for the upcoming plant-based culinary	Shweta Upamanyu [MU - Jaipur]	Dr. Amit Datta [MU - Jaipur]	02 May 2022 15:38	Raven Edward Joseph <rjoseph@hsi.org></rjoseph@hsi.org>

Hello! Greetings of the day

May 2022 I would like to share the information with you sir that the program has been scheduled for 10^{th} and 11^{th} of

culinary workshop cum training can be- "Millets an embellishing source of plant-based nutrition". This will cover the plant-based as well as millets theme inclusively. As per my discussion with you @Dr. Amit Datta [MU - Jaipur] sir the chosen topic of the plant-based

poster as per the HOD's guidance and the poster is being prepared by our Media Team. As per your suggestions that speaker, timings as well as the logo which you shared sir are added on the

as per the theme of celebrating 'Millets Year' Also the details of the topic to be emphasised and reflected is shared with the Chef to customize the session

The proposal will be shared with you in sometime once approved by final higher authority of HSI/India

Please contact me further for any clarifications or queries

Thanks in anticipation and eagerly waiting for this session to be a academic success.

From: Dr. Amit Datta [MU - Jaipur] <amit.datta@jaipur.manipal.edu>

Sent: 25 April 2022 14:23

To: Raven Edward Joseph <rjoseph@hsi.org>

Cc: Shweta Upamanyu [MU - Jaipur] <shweta.upamanyu@jaipur.manipal.edu> Subject: [EXTERNAL] RE: Query resolution and discussion for the upcoming plant-based culinary training and

workshop.

As discussed, the seminar may be conducted in between 9th – 11th May 2022. The timing may be any, preferably pre-Dear Sir,

lunch. Since we are associating with the 'International year of Millet' the theme should be related with it.

Request you to confirm, along with the title of the seminar, timing and speaker name

please feel free to communicate with me for further queries.

Regards,

HoD, SHTM Amit Datta

From: Raven Edward Joseph < rioseph@hsi.org>

Sent: 19 April 2022 17:47

Subject: Query resolution and discussion for the upcoming plant-based culinary training and workshop. Hello! Greetings of the day. To: Dr. Amit Datta [MU - Jaipur] <<u>amit.datta@jaipur.manipal.edu</u>>

As per our conversation and query resolution discussion, I have addressed the following with my team and we have come to the conclusion as follows-

1.Day and Date

The day and date of the session **can be scheduled as per your and our convenience**. I have discussed the time frame of 17-21 April with the team. We have also asked the Plant-based chef Varun for the availability with you have a tie up. This will enhance and make the session to cover wider group of students. session a more effective and innovative for the students. Meanwhile we can also include the universities a slight change of dates will not make a difference and give us good enough time help us to make this at his schedule of projects and prior commitment firstly and then update us regarding his availability. I hope and compliance of the time frame, he has said that since he is working on several new projects he will look

2. Time frame

analysis, opportunities for the nuances, scope for hospitality and management businesses, upcoming time frame with my team. The only thing is that we during the sessions cover different sections of plant-As per your kind suggestions and retention criteria dimensions, I have put forward the idea of shortening the and understanding among the students operations in kitchen, etc. So I don not believe we can be able to wind up these in one day. At least two based industry dynamics such as plant-based market animal agriculture, sustainability, food industry gap cum assignment so that the chef can have a clear picture regarding the understanding of plant-based skill set and awareness propagative. Also, at the end of the first day we will be sending students a questionnaire days of 2-2.5 hrs duration is necessary for the session to be student informative, interactive, involving trends, statistical evidences, growth of industry, practical culinary training, plant-based culinary

3.Millets year incorporation to the session

audience in interaction. assimilating it in the entire session will be not an issue, its just we require proper time frame and Incorporating millets as an ingredient during the culinary training practical depiction session and preparation to execute this as successfully and educational as possible for the betterment of the

session one of a kind full of enlightenment, skilful and polished. Looking forward to have this I hope I have covered the major sections of query clarification, please feel free to contact me for any further collaborative culinary training cum workshop session. feedback or ambiguity. Your queries and feedback will help me personally and HSI/India to make this

Thanks in anticipation

Raven Edward Joseph

rjoseph(a)hsi.org Institutional Meat Reduction Campaigner, Eat Kind India Campaign P-902-474-8313

hsi.org



way. cruelty to animals in all its forms. To support our work, please make a monthly donation or help in another animals for more than 25 years, working around the globe to promote the human-animal bond and confront Humane Society International is the world's most effective animal protection organization, defending all







University Grants Commission विश्वविद्यालय अनुदान आयोग

(शिक्षा मंत्रालय, भारत सरकार)

वहादुरशाह जफ़र मार्ग, नई दिल्ली-110002 (Ministry of Education, Govt. of India)

Bahadur Shah Zafar Marg, New Delhi-110002 Ph.: 011-23236288/23239337 E-mail : secy.ugc@nicitt Fox: 011-2323 8858

Secretary

सचिव

D.O.No.2-5/2021(CPP-II)

November, 2021

Subject : Observing the year 2023 as "International Year of Millets".

Respected Madam/Sir,

0.M. colleges to organize activities to celebrate International year of Millets. and nutritious millets across the globe. The Ministry of Education, Government of India vide its stakeholders to work towards improving production and productivity of the climate-resilient of Millets' in 2023. The basic idea behind the move is to create awareness and inspire all No. 11018/4/2021-CDN dated 11.11.2021 and 17.11.2021 has desired universities and On the proposal of India the United Nations has agreed to celebrate 'International Year

"International Year of Millets" and to take following actions: Accordingly, all Higher Education Institutions are requested to observe the year 2023 as

- ---Awareness programmes on the benefits and nutritional values of Millets which diabetes can help tackle life style problems and health challenges such as obesity and
- = around campuses of universities / colleges / institutions. Propagation of benefits of consumption of Millets by displaying banners in and
- H. Organizing workshops / seminars / conferences on millets. F
- iv. Health talks / debates on the benefits of Millets.
- V To add millets in the diet charts of HEIs canteens.
- ₫. To include a chapter on nutritional values Departments of HEIs. of Millets in Home Science
- vii. Community Health etc. in HEIs. Nutrition Science, millet in relevant department like Agriculture, Home Science, Food processing, Importance of improving production and productivity of the climate resilient Hotel Management, Catering Science, Culinary Arts,

of your university. This initiative may also be brought into the notice of the affiliated colleges / institutions

With kind regards

(Rajnish Jain) Yours sincerely,

The Principals of all Colleges / Institutes The Vice-Chancellors of All Universities





-OF PARTICIPATION-

This certificate is presented to

Jahan Daruwala

for participation in the 2-day Plant-Based Culinary Workshop, organized on the 10th & 11th May 2022, by Humane Society International/India and Manipal University Jaipur.

Dr Amit Datta

HoD, SHTM Manipal University Jaipur





-OF PARTICIPATION-

This certificate is presented to

Ankita Chauhan

for participation in the 2-day Plant-Based Culinary Workshop, organized on the 10th & 11th May 2022, by Humane Society International/India and Manipal University Jaipur.

Dr Amit Datta

HoD, SHTM Manipal University Jaipur





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Dr Amit Datta

HoD, SHTM Manipal University Jaipur





- OF PARTICIPATION-

This certificate is presented to

Ankit Kumar Singh

for participation in the 2-day Plant-Based Culinary Workshop, organized on the 10th & 11th May 2022, by Humane Society International/India and Manipal University Jaipur.

Dr Amit Datta

HoD, SHTM Manipal University Jaipur





-OF PARTICIPATION-

This certificate is presented to

Rishabb Singh

for participation in the 2-day Plant-Based Culinary Workshop, organized on the 10th & 11th May 2022, by Humane Society International/India and Manipal University Jaipur.

Dr Amit Datta

HoD, SHTM Manipal University Jaipur





-OF PARTICIPATION-

This certificate is presented to

Pankaj Hotwani

for participation in the 2-day Plant-Based Culinary Workshop, organized on the 10th & 11th May 2022, by Humane Society International/India and Manipal University Jaipur.

Dr Amit Datta

HoD, SHTM Manipal University Jaipur





-OF PARTICIPATION-

This certificate is presented to

Kopal Jain

for participation in the 2-day Plant-Based Culinary Workshop, organized on the 10th & 11th May 2022, by Humane Society International/India and Manipal University Jaipur.

Dr Amit Datta

HoD, SHTM Manipal University Jaipur





-OF PARTICIPATION-

This certificate is presented to

Naman Rai

for participation in the 2-day Plant-Based Culinary Workshop, organized on the 10th & 11th May 2022, by Humane Society International/India and Manipal University Jaipur.

Dr Amit Datta

HoD, SHTM Manipal University Jaipur





-OF PARTICIPATION-

This certificate is presented to

Mohit Arora

for participation in the 2-day Plant-Based Culinary Workshop, organized on the 10th & 11th May 2022, by Humane Society International/India and Manipal University Jaipur.

Dr Amit Datta

HoD, SHTM Manipal University Jaipur





-OF PARTICIPATION-

This certificate is presented to

Bhavika Changulani

for participation in the 2-day Plant-Based Culinary Workshop, organized on the 10th & 11th May 2022, by Humane Society International/India and Manipal University Jaipur.

Dr Amit Datta

HoD, SHTM Manipal University Jaipur



FACULTY OF DESIGN

SCHOOL OF ARCHITECTURE AND DESIGN

"Tree Plantation Drive" at Govt. School, Bagru ON 13 Dec 2022

Date of Event 13 Dec 2022





Content of Report

- 1. Introduction of the Event
- 2. Objective of the Event
- 3. Beneficiaries of the Event
- 4. Details of the participants
- 5. Photographs
- 6. Brochure or creative of the event
- 7. Attendance of the Event



1. Introduction of the Event

As part of Society Connect Initiative, **Directorate of Student Welfare, School of Architecture & Design and NSS organized a TREE PLANTATION DRIVE at Govt. School Bagru.** The Directorate of Student Welfare and students of School of Architecture & Design played an important role in this campaign. The plantation was done underthe patronage of Ar. Sidharth Soni, Assistant Professor from School of Architecture and Design. The event was attended by students of MUJ and students from School.

2. Objective of the Event

- To conduct plantation drive in local schools for environmental conservation.
- To involve students of MUJ and students from local school to develop a sense of belongingness.

3. Beneficiaries of the Event

Students, and staff members of Govt. School, Bagru

4. Details of the Participants

1	Asst. Prof.	SIDHARTH SONI
2	220501001	ANANYA TANDON
3	220501002	SAJAL PANWAR
4	220501003	RIJUL CHAUDHARY
5	220501004	DAKSH RUPANI
6	220501005	MOULESH M R
7	220501008	PRANAT KOTHARI
8	220501010	AARYA CHANDIRAMANI
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18	220501021	IKSHITA BAGLA
19	220501022	ARGHYA B S BHAGWAT
20	220501023	VANSHIKA SHARMA



5. Photographs of the event or screenshots of the event with captions



Students of MUJ planting tree saplings with faculty members from MUJ at Govt. School Bagru on 9th Dec 2022



6. Brochure or creative of the event



7. Attendance of the Event

1	Asst. Prof.	SIDHARTH SONI
2	220501001	ANANYA TANDON
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Govt. High Secondary School, Bagru

Letter of Appreciation

On 13th December 2023, Manipal University Jaipur organized a TREE PLANTATION DRIVE in association with NSS (National Service Scheme), DSW (Directorate of Student Welfare, MUJ) and SA&D (School of Architecture &Design) in the campus of Govt. School Sanjharia, Bagru.

Tree plantation drive was conducted by Ar. Sidharth Soni, MUJ alongwith Students's of first yr. Architecture and Students from the Govt. School, Bagru.

We highly appreciate efforts of Manipal University Jaipur for conducting TREE PLANTATION DRIVE in the campus of Govt. School Bagru, Jaipur.

Govt. School, Bagru

Date MAHATMA GANDHI GOVT.SCHOOL, SANGANER NP BAGRU, JAIPUR 08121216908

Link of the Report:

https://jaipur.manipal.edu/content/dam/manipal/muj/fod/Document/eventlist/Tree %20 Plantation-%20Bagru%201.pdf



FACULTY OF DESIGN

SCHOOL OF ARCHITECTURE AND DESIGN

"Tree Plantation Drive" at Govt. School, Begas ON 09 Dec 2022

Date of Event 09 Dec 2022





Content of Report

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2. Objective of the Event

- To conduct plantation drive in local schools for environmental conservation.
- To involve students of MUJ and students from local school to develop a sense ofbelongingness.

3. Beneficiaries of the Event

Students, and staff members of Govt. School, Begas

4. Details of the Participants

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5. Photographs of the event or screenshots of the event with captions



Students of MUJ planting tree saplings with faculty members from MUJ at Govt. School Begas on 9thDec 2022

6. Brochure or creative of the event





7. Attendance of the Event

1	Asst. Prof.	SIDHARTH SONI
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Mahatma Gandhi Govt. School, Begas

Letter of Appreciation

On 9th December 2023, Manipal University Jaipur organized a TREE PLANTATION DRIVE in association with NSS (National Service Scheme), DSW (Directorate of Student Welfare, MUJ) and SA&D (School of Architecture &Design) in the campus of Mahatma Gandhi Govt. School, Begas

, Jaipur.

Tree plantation drive was conducted by Ar. Sidharth Soni, MUJ alongwith Students's of first yr. Architecture and Students from the Mahatma Gandhi Govt. School, Begas.

We highly appreciate efforts of Manipal University Jaipur for conducting TREE PLANTATION DRIVE in the campus of Mahatma Gandhi Govt. School, Begas.

2022 0911 P; bal ahaima Gandhi Government School (English Medium) Begas

Mahatma Gandhi Govt. School, Begas

Date

Link of the report:

https://jaipur.manipal.edu/content/dam/manipal/muj/fod/Document/eventlist /Tree%20 Plantation-%20Begas.pdf



FACULTY OF DESIGN

SCHOOL OF ARCHITECTURE AND DESIGN

"Tree Plantation Drive" at Govt. School, Dehmikalan ON 09 Dec 2022

Date of Event 09 Dec 2022





Content of Report

- 1. Introduction of the Event
- 2. Objective of the Event
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- 4. Details of the participants
- 5. Photographs
- 6. Brochure or creative of the event
- 7. Attendance of the Event



1. Introduction of the Event

As part of Society Connect Initiative, Directorate of Student Welfare, School of Architecture & Design and NSS organized a TREE PLANTATION DRIVE at Govt. School Dehmikalan. The Directorate of Student Welfare and students of School of Architecture & Design played an important role in this campaign. The plantation was done under the patronage of Ar. Sidharth Soni, Assistant Professor from School of Architecture and Design. The event was attended by students of MUJ and students from School.

2. Objective of the Event

- To conduct plantation drive in local schools for environmental conservation.
- To involve students of MUJ and students from local school to develop a sense of belongingness.

3. Beneficiaries of the Event

Students, and staff members of Govt. School, Dehmikalan

4. Details of the Participants

1	Asst. Prof.	SIDHARTH SONI
2	220501001	ANANYA TANDON
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5. Photographs of the event or screenshots of the event with captions



Students of MUJ planting tree saplings with faculty members from MUJ at Govt. School Dehmikalan on 9th Dec 202


6. Brochure or creative of the event



7. Attendance of the Event

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Govt. High Secondary School, Dehmikalan

Letter of Appreciation

On 9th December 2023, Manipal University Jaipur organized a TREE PLANTATION DRIVE in association with NSS (National Service Scheme), DSW (Directorate of Student Welfare, MUJ) and SA&D (School of Architecture & Design) in the campus of Govt. School Dehmikalan, Jaipur.

Tree plantation drive was conducted by Ar. Sidharth Soni, MUJ along with Students' of first yr. Architecture and Students from the Govt. School Dehmikalan.

We highly appreciate efforts of Manipal University Jaipur for conducting TREE PLANTATION DRIVE in the campus of Govt. School Dehmikalan, Jaipur.

M.G.G.S. (Eng.Med.) DAHMI KALAN, JAIPUR

Date Og ber 2022

Link of the Report:

https://jaipur.manipal.edu/content/dam/manipal/muj/fod/Document/eventlist/Tre e%20 Plantation-%20DehmiKalan.pdf



FACULTY OF DESIGN

SCHOOL OF ARCHITECTURE AND DESIGN

"Tree Plantation Drive" at Govt. School, Sanjharia

ON 09 Dec 2022

Date of Event 09 Dec 2022



Content of Report

- 1. Introduction of the Event
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1. Introduction of the Event

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2. Objective of the Event

- To conduct plantation drive in local schools for environmental conservation.
- To involve students of MUJ and students from local school to develop a sense of belongingness.

3. Beneficiaries of the Event

Students, and staff members of Govt. School, Sanjharia

4. Details of the Participants

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5. Photographs of the event or screenshots of the event with captions



Students of MUJ planting tree saplings with faculty members from MUJ at Govt. School Sanjharia on 9th Dec 2022.

6. Brochure or creative of the event





7. Attendance of the Event

1	Asst. Prof.	SIDHARTH SONI
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Govt. High Secondary School, Sanjharia

Letter of Appreciation

On 9th December 2023, Manipal University Jaipur organized a TREE PLANTATION DRIVE in association with NSS (National Service Scheme), DSW (Directorate of Student Welfare, MUJ) and SA&D (School of Architecture &Design) in the campus of Govt. School Sanjharia, Jaipur.

Tree plantation drive was conducted by Ar. Sidharth Soni, MUJ alongwith Students's of first yr. Architecture and Students from the Govt. School, Sanjharia.

We highly appreciate efforts of Manipal University Jaipur for conducting TREE PLANTATION DRIVE in the campus of Govt. School Sanjharia, Jaipur.

Govt. School, Sanjharia

Date Ogber 2022

Link of the Report:

https://jaipur.manipal.edu/content/dam/manipal/muj/fod/Document/eventli st/Tree%20 Plantation-%20Sanjharia.pdf

Tree Planation Drive at Govt. School, Sanjharia



MUJ/Q&C/021/F/1.01

Event Report Format

FACULTY OF MANAGEMENT AND COMMERCESCHOOL OF BUSINESS AND COMMERCE BUSINESS ADMINISTRATION

Plantation Drive

09/09/2022

Plantation Drive



1. Introduction of the Event

School of Business and Commerce organized a plantation drive in association with Directorate of Student welfare and NCC and NSS on 9th September 2022.

2. Objective of the Event

School of Business and Commerce in association with Directorate of Student Welfare, NCC and NSS organised a plantation drive on 9/09/22. The event was organised to create awareness about the ecological balance and to highlight the importance of plantation.

3. Beneficiaries of the Event

- Students
- Faculties
- General Public

4. Details of the Guests

During the event, Group captain Neeraj Amba, 1Raj Air SQN NCC Jaipur was the chief guest. Faculties of school of business and commerce were also present with the students. NCC officer Mr. Sanjeev Sharma was the coordinator from NCC and NSS.

5. Brief Description of the event

The event was conducted on 9th September 2022. During the event students of School of Business and commerce along with NCC and NSS volunteers planted trees in the NCC Jaipur Campus. The chief guest of the event was Group captain Neeraj Amba, 1Raj Air SQN NCC Jaipur. The plantation drive started with a welcome speech by the chief guest in which he encouraged the students to participate in community services and social welfare. Then students and teachers planted trees across the campus. The drive emphasised on creating more and more green spots in the city and contribute towards the environment protection.



6. Photographs of the event



Figure 1MUJ students walk for Plantation Drive



Figure 2 Planting the trees



Figure 3 Understanding the importance of nature



7. Attendance of the Event Total attendee- 83

S.NO	NAME	CLASS		
1	Devesh Kumpawat	BBA III-D		
2	2 Jaytiraj Singh BBA III-D			
3	Pranjal Sethi	BBA III-D		
4	Harsh Mittal	BBA III-D		
5	Dev Gupta	BBA III-D		
6	Pulkit Arora	BBA III-D		
7	Rahul Choudhary	BBA III-D		
8	Naman Gupta	BBA III-D		
9	Divyansh Bubana	BBA III-A		
10	Mansi Bagaria	BBA III-B		
11	Mishu Mathur	BBA III-B		
12	Akshita Manuel	BBA III-B		
13	Jasmine Tansukhani	BBA III-B		
14	Bhavya Khandelwal	BBA III-B		
15	Charchita Tanwar	BBA III-E		
16	Manav Sankhla	BBA III-E		
17	Hitesh Makhijani	BBA III-E		
18	Nihal Singh	BBA III-E		
19	Pranjal Jain	BBA III-D		
20	Jayansh Sharma	BBA III-C		
21	Sanskriti Sharma	B.com Honours III-A		
22	Riya Lohia	B.com Honours III-A		
23	Simran Kaur	B.com Honours III-A		
24	Dhruvi Choudhary	BBA III-D		
25	Pragya Jain	B.com Honours III-B		
26	Harsh Kumar Singh	B.com Honours III-B		
27	Palak Agarwal	B.com Honours III-B		
28	Varsha Agarwal	B.com Honours III-B		
29	Divyansh	B.com Honours III-A		
30	Ashish	B.com Honours III-A		
31	Deepak	B.com Honours III-A		
32	Ambudhi	B.com Honours III-A		
33	Tanisha	B.com Honours III-A		
34	Sarjan Mahajan	BBA III-A		
35	Harshit Hirawat	BBA III-A		
36	Divyanshu Patodia	BBA III-A		
37	Sanjay Choudhary	BBA III-A		
38	Abhay Pratap Singh	B.com Honours V		
39	Saksham Jain	BBA V-C		
40	Urvashi T Purswany	BBA V-C		
41	Tejesvi Purohit	BBA V-C		
42	Lakshay Mahipal	BBA V-C		
43	Devansh Goyal	BBA V-C		
44	Prakhar Modi	BBA V-C		
45	Tarun Agarwal	BBA III-D		

Plantation Drive



 $U^{(1)}$ (University under Section 2(f) of the UGC Act)

S.NO	NAME	CLASS
46	Yajat tak	BBA III-C
47	Aditijain	BBA III-C
48	Pakhi Agrawal	BBA III-C
49	Tanishq haldiya	BBA III-C
50	Shyam sundar	BBA III-C
51	Devansh khurana	BBA III-C
52	Shreyansh Maheswari	BBA III-C
53	Ramay Mehta	BBA III-C
54	Mohit Bhiwaniwala	BBA III-D
55	Geetika Sharma	BBA III-D
56	Yash Agarwal	BBA III-D
57	Aditi Jain	BBA III-D
58	Vishal Agarwal	BBA III-D
59	Ishaan gill	BBA III-D
60	Akshat choudhary	BBA III-D
61	Ishita Rajpal	BBA III-D

Buch

Head Department of Business Administration Manipal University Jaipur



MUJ/DSW/SC/1-7 Sept 2022



DIRECTORATE OF STUDENT'S WELFARE

(SOCIETY CONNECT)

Rotaract Club MUJ

Presents

Nutrition Week 2022

Date of Event : 1st - 7th September 2022 Time :12pm onwards Venue : Instagram



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1. Introduction of the Event

The Rotaract club of MUJ brings you an online remote event on this Nutrition Week to bring awareness for health and adopt healthy practices when it comes to nutrition. This 7 day event will focus on user interaction to test their knowledge about the healthy practices one should adopt, through instagram putting up interactive polling stories and on the 7th day having an instagram live interaction to end the week on a high.

2. Objectives of the Event

- Inspirational Talk.
- To understand nutrition.
- To bring awareness among young minds to adopt healthy practices..

3. Beneficiaries of the Event

Rotaract Club MUJ instagram followers.

4. Details of the Guest

Rotary Club Jaipur Bapu Nagar

Rotary started with the vision of one man — Paul Harris. The Chicago attorney formed the Rotary Club of Chicago on 23 February 1905, so professionals with diverse backgrounds could exchange ideas and form meaningful, lifelong friendships.

Over time, Rotary's reach and vision gradually extended to humanitarian service. Members have a long track record of addressing challenges in their communities and around the world.



5. Brief Description of the Event

Nutrition Week 2022 - Rotaract Club, MUJ organized an event wherein interactive Instagram stories were posted for the students to engage about nutrition. The students had varied views regarding the nutrition of different meals from iconic movies which showed how much spreading awareness about this was important. This event helped the students to understand various nutrition facts and where they were lacking the nutritional value.

On the 7th day there was an Instagram live that was organized wherein we interacted with the students regarding the same.

6. Brochure or creative of the event



6. <u>Schedule of the Event</u>

The event was held from 1st to 7th September 2022 on Instagram.



8. <u>Attendance</u>

S. No.	Name of Institution	Reg. No	Full name	Year	Branch
1	Manipal University Jaipur	200901164	Pratham Kapoor	3rd	BBA
2	Manipal University Jaipur	209403025	Akshvin K Singhal	3rd	B.Tech Mechatronics
3	Manipal University Jaipur	209303107	Ansh Chawla	3rd	CCE
4	Manipal University Jaipur	199303074	Vaibhav Vats	4th	CCE
5	Manipal University Jaipur	201103019	Vani Ghai	3rd	BA Hons Psychology
6	Manipal University Jaipur	201105005	Yasha Taneja	3rd	BA Libral Arts
7	Manipal University Jaipur	201002005	Abhinav Wadhwa	3rd	Bsc.Biotechnology
8	Manipal University Jaipur	201007034	Garima Mahaur	3rd	Bsc. Psychology
9	Manipal University Jaipur	200901113	Aditya Mathur	3rd	BBA
10	Manipal University Jaipur	201103042	Navneet Bhukmariya	3rd	BA Hons Psychology
11	Manipal University Jaipur	209301040	Chandraveer Mathur	3rd	CSE
12	Manipal University Jaipur	201105015	Deepti Meena	3rd	BA Libral Arts
13	Manipal University Jaipur	209403017	Lohit Shandiliya	3rd	B. Tech Mechatronics
14	Manipal University Jaipur	209303345	Sejal Shrisale	3rd	CCE
15	Manipal University Jaipur	209303088	Atharva Chaudhari	3rd	CCE
16	Manipal University Jaipur	209302183	Siddharth Dhaka	3rd	B. Tech IT



17	Manipal University Jaipur	209302354	Raghav Ruia	3rd	B. Tech Mechatronics
18	Manipal University Jaipur	209301186	Aryan Bansal	3rd	CSE
19	Manipal University Jaipur	209301496	Pranav Shrivastava	3rd	CSE
20	Manipal University Jaipur	209302323	Priyam Agarwal	3rd	B. Tech IT
21	Manipal University Jaipur	209402037	Apar Gupta	3rd	Mechanical
22	Manipal University Jaipur	209301160	Vaibhav Shoree	3rd	CSE
23	Manipal University Jaipur	201007007	Ayushi Gupta	3rd	Bsc. Hons. Psychology
24	Manipal University Jaipur	201015039	Parth Sharma	3rd	BCA
25	Manipal University Jaipur	209309042	Vikramaditya Hiran	3rd	DSE
26	Manipal University Jaipur	209303087	Akash Shedage	3rd	CCE
27	Manipal University Jaipur	209301086	Urvi Dhasmana	3rd	CSE
28	Manipal University Jaipur	201003007	Garima Ghaley	3rd	Bsc. Hons. Microbiology
29	Manipal University Jaipur	209303333	Nivedita Ramaesh	3rd	CCE
30	Manipal University Jaipur	201101037	Aishwarya Seth	3rd	BA-Economics
31	Manipal University Jaipur	219302360	Disha Agarwal	2nd	IT
32	Manipal University Jaipur	219302421	Bhavin Sehrawat	2nd	B.Tech IT
33	Manipal University Jaipur	219301155	Nishita Gogia	2nd	Btech CSE (Core)
34	Manipal University Jaipur	219311125	Yash verma	2nd	Cse iot
35	Manipal University Jaipur	210901018	Pratham choudhary	2nd	BBA
36	Manipal University Jaipur	219311161	Anisha Lamba	2nd	BTech in CSE



37	Manipal University Jaipur	229403013	Gunn Verma	1st	Mechatronics
38	Manipal University Jaipur	229302083	Vedic Varma	1st	CSE (CORE)
39	Manipal University Jaipur	229303191	Krishang Shukla	1st	BTech CCE
40	Manipal University Jaipur	229302371	Rishika Bhagawati	1st	Btech IT
41	Manipal University Jaipur	229309218	Kartikey Sharma	1st	Btech data science
42	Manipal University Jaipur	221305021	Nehal Dashottar	1st	BBA LLB
43	Manipal University Jaipur	220113244	Daksh sharma	1st	BBA LLB
44	Manipal University Jaipur	229309035	Krishang Goel	1st	IT
45	Manipal University Jaipur	229311254	Gargi Arora	1st	CSE (IoT and IS)
46	Manipal University Jaipur	229303405	anav lamba	1st	CCE
47	Manipal University Jaipur	200901298	Rajeev Sharma	3rd	BBA
48	Manipal University Jaipur	209303239	Abhinav Jindal	3rd	IT
49	Manipal University Jaipur	209301053	Nadella Rutvik Ramana	3rd	CSE
50	Manipal University Jaipur	211007071	Anuja pol	2nd	Bsc psychology hons
51	Manipal University Jaipur	211007003	Lakshita	2nd	Bsc psychology hons
52	Manipal University Jaipur	219303064	Shobhit Bansal	2nd	CCE
53	Manipal University Jaipur	210903065	Prerana Singh	2nd	Bcom Accounting
54	Manipal University Jaipur	219301331	Ayush Goyal	2nd	CSE
55	Manipal University Jaipur	219310146	Yoshe vijay	2nd	BTech CSE
56	Manipal University Jaipur	210901317	Pranav Agarwal	2nd	BBA



57	Manipal University Jaipur	219309129	Nayonika Sharma	2nd	Btech Data Science
58	Manipal University Jaipur	219311064	Khushboo Tewari	2nd	CSE
59	Manipal University Jaipur	210901184	Nihal	2nd	BBA
60	Manipal University Jaipur	219303126	Divyanshee Saxena	2nd	Btech CCE
61	Manipal University Jaipur	219301388	Madhur Dhingra	2nd	CSE
62	Manipal University Jaipur	219302301	Vanshika Singh Andotra	2nd	IT
63	Manipal University Jaipur	211103012	Jessica Agarwal	2nd	BA -psychology
64	Manipal University Jaipur	219310180	harshit shah	2nd	CSE
65	Manipal University Jaipur	211007011	Kashish parmar	2nd	Bsc psychology
66	Manipal University Jaipur	219403030	rupansh goyal	2nd	mechatronics
67	Manipal University Jaipur	219303120	Pravartika mishra	2nd	Btech IT
68	Manipal University Jaipur	219303066	Sivam Pratik	2nd	IT
69	Manipal University Jaipur	219301133	Soham Dixit	2nd	Btech CSE
70	Manipal University Jaipur	219301208	Divyansh Jain	2nd	Cse core
71	Manipal University Jaipur	219107001	Mohd kaif	2nd	Civil
72	Manipal University Jaipur	211201059	Madhav Methi	2nd	BAJ&MC
73	Manipal University Jaipur	219301390	Tanay Daga	2nd	Btech CSE
74	Manipal University Jaipur	219310182	Garvit Narula	2nd	BTECH CSE
75	Manipal University Jaipur	211007024	Arundhati de	2nd	bsc psychology
76	Manipal University Jaipur	210901118	Manan Vyas	2nd	BBA



77	Manipal University Jaipur	219301009	Aryav Goyal	2nd	Btec Cse
78	Manipal University Jaipur	210901140	Bhoomi Lodha	2nd	BBA
79	Manipal University Jaipur	219301137	Aditya Pandey	2nd	CSE
80	Manipal University Jaipur	211007008	Trishita Banerjee	2nd	BSc Psychology
81	Manipal University Jaipur	210901341	Kanika Mahajan	2nd	BBA
82	Manipal University Jaipur	211103028	Avni Singh	2nd	BA-Psychology
83	Manipal University Jaipur	219301268	Datla Sai Prabhath Varma	2nd	CSE
84	Manipal University Jaipur	211007036	Manoj kumawat	2nd	B.sc Psychology
85	Manipal University Jaipur	210903075	Siddhant Garg	2nd	B. Com
86	Manipal University Jaipur	219301134	Astitva Goel	2nd	CSE
87	Manipal University Jaipur	210901112	Tejashwini Joshi	2nd	BBA
88	Manipal University Jaipur	219310063	N.Nikhil	2nd	CSE
89	Manipal University Jaipur	219302056	Harsh Pratap Singh	2nd	IT
90	Manipal University Jaipur	219301231	Devanshu Kejriwal	2nd	CSE
91	Manipal University Jaipur	219302116	sarthak garg	2nd	B.tech IT
92	Manipal University Jaipur	219301008	Isha goel	2nd	Btech CSE
93	Manipal University Jaipur	219301207	Rishabh bassi	2nd	CSE
94	Manipal University Jaipur	219310002	Purusharth Agarwal	2nd	Btech cse
95	Manipal University Jaipur	219309114	Vitika Vora	2nd	Data Science
96	Manipal University Jaipur	211103019	Aishani Dutta	2nd	Ba psychology



97	Manipal University Jaipur	219301078	Saurav Yadav	2nd	CSE
98	Manipal University Jaipur	211007043	Varnima Singh	2nd	Bsc. Psychology
99	Manipal University Jaipur	219309139	Radhika sharma	2nd	CSE
100	Manipal University Jaipur	219302203	Shreyans Jain	2nd	IT
101	Manipal University Jaipur	219311264	Manu Kabra	2nd	BTech , CSE
102	Manipal University Jaipur	219309057	Varun Mandloi	2nd	IT
103	Manipal University Jaipur	219301660	Shashwat Durugkar	2nd	CSE
104	Manipal University Jaipur	219310123	Chirag chetwani	2nd	CSE
105	Manipal University Jaipur	211301067	Paavni chadha	2nd	Ba.llb
106	Manipal University Jaipur	219301238	Pulkit Kohli	2nd	CSE
107	Manipal University Jaipur	219311289	Khushi Shukla	2nd	CSE IOT
108	Manipal University Jaipur	219302080	Nikshith Martha	2nd	IT
109	Manipal University Jaipur	219302198	Gautam Vhavle	2nd	IT
110	Manipal University Jaipur	219301235	Pratham Hariani	2nd	CSE
111	Manipal University Jaipur	219301588	Dhruv Kumar Pandey	2nd	CSE
112	Manipal University Jaipur	219302408	Shivansh Tyagi	2nd	IT
113	Manipal University Jaipur	219311321	Vaibhav Yadav	2nd	CCE
114	Manipal University Jaipur	219403013	Chirayu garg	2nd	Mechatronics
115	Manipal University Jaipur	210901028	Apoorva	2nd	Bba
116	Manipal University Jaipur	219302009	Ishaan Gulrajani	2nd	IT



Manipal University Jaipur	210901167	Archie Agrawal	2nd	BBA
Manipal University Jaipur	219302235	Prakhar Goel	2nd	IT
Manipal University Jaipur	211103001	Nikeeta Chaudhary	2nd	BA Psychology
Manipal University Jaipur	210901025	Parv Kumar Singh	2nd	BBA
Manipal University Jaipur	219302476	Manan Tola	2nd	BTech -IT
Manipal University Jaipur	211015087	Pratyaksh Bhandari	2nd	BCA
Manipal University Jaipur	219310330	Tanu Rathee	2nd	CSE AI-ML
Manipal University Jaipur	219311006	Mayank Shekhar Pal	2nd	CSE(Iot and IS)
Manipal University Jaipur	219301270	Paramesh Gurbaxani	2nd	CSE Core
Manipal University Jaipur	219302117	Shubhi Talati	2nd	Cse(aiml)
Manipal University Jaipur	229303369	Gourish G Pillai	1st	CCE
Manipal University Jaipur	229309232	Anshul Nag	1st	DSE
Manipal University Jaipur	221002055	Ojas bathla	1st	Bsc biotechnology
Manipal University Jaipur	229301673	Arnav Praneet	1st	B. Tech CSE Core
Manipal University Jaipur	224901003	Aseem Gupta	1st	Automobile
Manipal University Jaipur	229403011	Vibhor Agarwal	1st	Btech Mechatronics
Manipal University Jaipur	229202021	Ankita Singh	1st	IT
Manipal University Jaipur	229309063	Rishabh Karnwal	1st	Data science
Manipal University Jaipur	229303252	Tushar Singhal	1st	CCE
Manipal University Jaipur	229301360	Dev Dhiren Faldu	1st	CSE
	Manipal University Jaipur Manipal University Jaipur	Manipal University Jaipur210901167Manipal University Jaipur219302235Manipal University Jaipur211103001Manipal University Jaipur210901025Manipal University Jaipur219302476Manipal University Jaipur219302476Manipal University Jaipur219310300Manipal University Jaipur219310300Manipal University Jaipur219310300Manipal University Jaipur219301270Manipal University Jaipur219301270Manipal University Jaipur229303369Manipal University Jaipur229303369Manipal University Jaipur229301673Manipal University Jaipur229301673Manipal University Jaipur229301673Manipal University Jaipur2293002021Manipal University Jaipur22930063Manipal University Jaipur22930063Manipal University Jaipur229303252Manipal University Jaipur229301360	Manipal University Jaipur210901167Archie AgrawalManipal University Jaipur219302235Prakhar GoelManipal University Jaipur211103001Nikeeta ChaudharyManipal University Jaipur210901025Parv Kumar SinghManipal University Jaipur219302476Manan TolaManipal University Jaipur219302476Manan TolaManipal University Jaipur21931030Tanu RatheeManipal University Jaipur21931030Mayank Shekhar PalManipal University Jaipur219301270Paramesh GurbaxaniManipal University Jaipur219302177Shubhi TalatiManipal University Jaipur229303369Gourish G PillaiManipal University Jaipur229309232Anshul NagManipal University Jaipur229301673Arnav PraneetManipal University Jaipur229403011Vibhor AgarwalManipal University Jaipur229202021Ankita SinghManipal University Jaipur229309633Rishabh KarnwalManipal University Jaipur22930963Rishabh KarnwalManipal University Jaipur22930963Rishabh Karnwal	Manipal University Jaipur210901167Archie Agrawal2ndManipal University Jaipur219302235Prakhar Goel2ndManipal University Jaipur211103001Nikeeta Chaudhary2ndManipal University Jaipur210901025Parv Kumar Singh2ndManipal University Jaipur219302476Manan Tola2ndManipal University Jaipur219302476Manan Tola2ndManipal University Jaipur21931030Tanu Rathee2ndManipal University Jaipur21931030Tanu Rathee2ndManipal University Jaipur219301270Paramesh Gurbaxani2ndManipal University Jaipur219302170Paramesh Gurbaxani2ndManipal University Jaipur21930232Anshul Nag1stManipal University Jaipur229309232Anshul Nag1stManipal University Jaipur229301673Arnav Praneet1stManipal University Jaipur22940301Vibhor Agarwal1stManipal University Jaipur22940301Vibhor Agarwal1stManipal University Jaipur229309252Tushar Singhal1stManipal University Jaipur229309253Ankita Singh1stManipal University Jaipur229309253Ankita Singh1stManipal University Jaipur229309253Tushar Singhal1stManipal University Jaipur229309253Tushar Singhal1stManipal University Jaipur229309253



137	Manipal University Jaipur	229301635	Nishant Thottarath	1st	BTech CSE
138	Manipal University Jaipur	229301386	Yug Sahni	1st	Btech CSE
139	Manipal University Jaipur	220901414	Ayush Jain	1st	BBA
140	Manipal University Jaipur	229302583	Shreyansh Agarwal	1st	B.TECH
141	Manipal University Jaipur	229311250	Abhed Agarwal	1st	CSE
142	Manipal University Jaipur	229102003	Ananya singh	1st	Civil engineering

8. Post event link

https://jaipur.manipal.edu/muj/life-at-muj/Student-CLUBS.html

Rotaract Club President

Faculty Head Rotaract Club

Afril.

(Hemant Kumar) Assistant Director, Society Connect Directorate of Student's Welfare

Angas.

(Prof. AD Vyas) Director, Directorate of Student's Welfare

DIRECTOR STUDENT WELFARE & PROCTOR MANIPAL UNIVERSITY, JAIPUR





Manipal University Jaipur Facilitates Local Farmers and Food <u>Producers for Agricultural Advancement</u>

Local farmers and food producers are the backbone of our communities, providing essential sustenance and contributing to the local economy. Recognizing the vital role they play, Manipal University Jaipur has taken a proactive stance in assisting these individuals and businesses. Manipal University Jaipur provides access to facilities that empower local farmers and food producers to thrive in their endeavors.

Manipal University Jaipur is equipped with cutting-edge research facilities, including laboratories, greenhouses, and experimental fields. These resources allow local farmers and food producers to conduct experiments, analyze soil and crop samples, and develop innovative agricultural solutions. Modern agriculture relies on specialized equipment, which can be expensive to purchase and maintain. Manipal University Jaipur maintains demonstration farms where best practices in agriculture are showcased. Farmers and food producers can visit these farms to learn about the latest techniques in soil management, crop rotation, pest control, and sustainable farming. Manipal University Jaipur has extension programs that offer practical advice and support to local agricultural communities. These services include workshops on topics like organic farming, crop diversification, and pest management. Manipal University Jaipur offers undergraduate and graduate programs in related fields(Figure 1) These programs prepare the next generation of farmers, agronomists, and food scientists while fostering a culture of innovation in the local agricultural sector. Manipal University Jaipur collaborates with local farmers and food producers on research projects. These partnerships help bridge the gap between scientific knowledge and practical application, leading to innovations that boost agricultural productivity and sustainability. Manipal University Jaipur hosts farmers' markets on their campuses, providing a platform for local producers to sell their products directly to the community(Picture 1& 2). This strengthens the local food system and supports small-scale producers. Manipal University Jaipur promotes sustainable and environmentally friendly practices. Farmers and food producers can benefit from knowledge sharing on conservation, waste reduction, and eco-friendly packaging(Picutre3& 4).

Manipal University Jaipur serves as dynamic hubs of knowledge and resources that local farmers and food producers can tap into for their benefit. By providing access to facilities, educational programs, and opportunities for collaboration, universities empower





these essential community members to navigate the challenges of modern agriculture successfully. As this partnership between academia and agriculture continues to thrive, it contributes to the growth and sustainability of local food systems, ultimately benefiting us all.



Picture 1: Access to MUJ Farming land to local Farmers







Picture 2: Crop cultivation and cutting at MUJ campus by Local Farmer



https://www.youtube.com/watch?v=FVsnhJShXr8





Sr. No.	Course code	Name of Course	Name of Program
1	BT6202	Plant Biotechnology	M.Sc. Biotechnology
2	BT1201	Mycology, and Plant Pathology	B.Sc. (Hons.) Biotechnology
3	BT1101	Diversity of Lower Plants	B.Sc. (Hons.) Biotechnology
4	BT1212	Microbial Nutrition and Growth	B.Sc. (Hons.) Microbiology

Figure 1: Programs related to Plants and Nutrition



Picture 3: Organic farming activities at MUJ Campus



Picture 4: Food testing at MUJ lab









Manipal University Jaipur Prioritizes Purchasing Products from Local, Sustainable Sources

Manipal University Jaipur has embraced sustainable procurement practices, placing a strong emphasis on sourcing products from local and sustainable providers. This transformation reflects a commitment to responsible and ethical purchasing decisions. Manipal University Jaipur has a positive impact on both campuses and their surrounding communities.

By sourcing products locally, Manipal University Jaipur contributes to the growth and stability of nearby communities. These partnerships strengthen local economies by providing income and opportunities to regional businesses, farmers, and artisans. Purchasing from local sources often means shorter supply chains. This translates to reduced transportation emissions, as products travel shorter distances to reach the university. Lower carbon footprints align with sustainability goals and combat climate change. Local sourcing allows the university to obtain fresher and higher-quality products. This is particularly relevant in the context of campus dining services, where fresh, locally sourced ingredients can significantly enhance the dining experience for students and staff. By prioritizing sustainable products, Manipal University Jaipur encourages responsible production methods, such as organic farming, eco-friendly packaging, and ethical labor practices. (Annexure 1) Strong connections between the university and the local communities are mutually beneficial. When universities source from local suppliers, they strengthen these ties and foster a sense of partnership and shared responsibility. The emphasis on local and sustainable sourcing also presents valuable educational opportunities. Manipal University Jaipur engages students in discussions about responsible consumer choices, food systems, and sustainability through initiatives like campus gardens, farm-to-table programs, and sustainability-focused courses.

By choosing products that align with ethical, environmental, and communityfocused values, Manipal University Jaipur not only enhances the campus but also inspires the next generation of responsible consumers and leaders.



MUJ/Q&C/021/F/1.01

Event Report Format

FACULTY OF MANAGEMENT AND COMMERCE

SCHOOL OF BUSINESS AND COMMERCE

BUSINESS ADMINISTRATION

Visit to Akshaypatra

23/12/2022



1. Introduction of the Event

School of Business and Commerce organized a visit for its students to Akshaypatra, Jaipur on 23rd December 2022.

2. Objective of the Event

The visit to Akshaypatra was organised to provide a chance to the students to interact with the experts and teachers at Akshaypatra about self-discipline and understanding our roots. Also, during the visit, the students learnt about the functioning of Akshaypatra Foundationand its social contribution.

3. Beneficiaries of the Event

- Students
- Faculties

4. Details of the Guests

During the visit, Shri Pran Vallabh from Akshaypatra was the resource person. Students and faculties from SBC were also present.

5. Brief Description of the event

School of Business and Commerce organised a visit to Akshaypatra, Jaipur on 23rd Dec 2022 for its students. The visit started with an interaction between the teachers of Akshayapatra and students of SBC. During the interaction, various issues like discipline, self-control and yoga were discussed. The teachers explained the students the importance of understanding our culture and roots. After the interaction, the students took a guided tour to the Akshaypatra Kitchen. Experts from the foundation narrated the various systems and processes followed in the kitchen for food preparation. The students also learnt about the social contribution of Akshaypatra, which is working towards providing meals to underprivileged children.



6. Photographs of the event



Figure 1 MUJ students understanding the operation of Akshaypatra



Figure 2 Students are getting inputs : how to work for society"





Figure 3 official of Akshaya Patra introducing the working of organization



Figure 4 Valuable Inputs received by MUJ students



7. Attendance of the Event Total attendee- 35

List of participants

S.NO	NAME	CLASS
1	Kashish Jain	BBA III-C
2	Jaismin Tansukhani	BBA III-B
3	Chirag Saraf	BBA III-C
4	Bhavya Khandelwal	BBA III-B
5	Mayank Tyagi	BBA III-B
6	Manav Sankhla	BBA III-E
7	Jhanvi Agarwal	BBA III-B
8	Jay Sharma	BBA III-A
9	Pragya Jain	B.com Honours III-B
10	Harsh Kumar Singh	B.com Honours III-B
11	Palak Agarwal	B.com Honours III-B
12	Varsha Agarwal	B.com Honours III-B
13	Divyansh Gaur	B.com Honours III-A
14	Ashish Saini	B.com Honours III-A
15	Deepak Sahu	B.com Honours III-A
16	Ambudhi Choudhary	B.com Honours III-A
17	Nishtha Sethia	B.com Honours III-A
18	Purav Bhayana	B.com Honours III-A
19	Yash Dangi	B.com Honours III-A
20	Tanisha Doshi	B.com Honours III-A
21	Hemant Sharma	B.com Honours III-A
22	Manan Sachdeva	B.com Honours III-B
23	Pratibha Keshwani	B.com Honours III-B
24	Jay Sharma	BBA III-A
25	Siddhant Garg	B.com Honours III-A
26	Priyanka Kumari	BBA III-C
27	Yajat tak	BBA III-C
28	Devansh Garg	B.com Honours III-B
29	Ramay Mehta	BBA III-C
30	Tanishq haldiya	BBA III-C
31	Palak Chouhan	BBA III-C
32	Rishik saraf	B.com Honours III-B
33	Varsha Agarwal	B.com Honours III-B
34	Prem Raj	B.com Honours III-B
35	Bharti Vyas	B.com Honours III-B

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