

Online Training for Master Trainers
on
Fruits and Vegetables Processing Phase II
28.12.2020 to 01.01.2021

Organized by
Indian Institute of Food Processing Technology (IIFPT)

Day- 1: 28th December 2020

Session Details:

Session.1

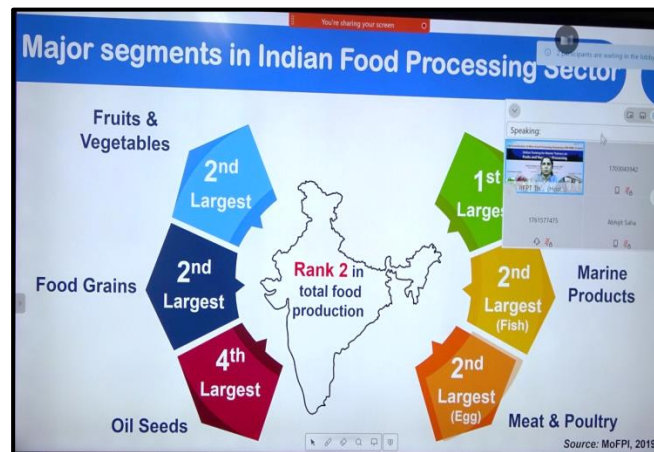
Time: 10:15 a.m. to 11:00 a.m.

Session Topic: Overview on overall scenario of food processing sector & PMFME scheme, its guidelines, objectives, capacity building framework and its implementation.

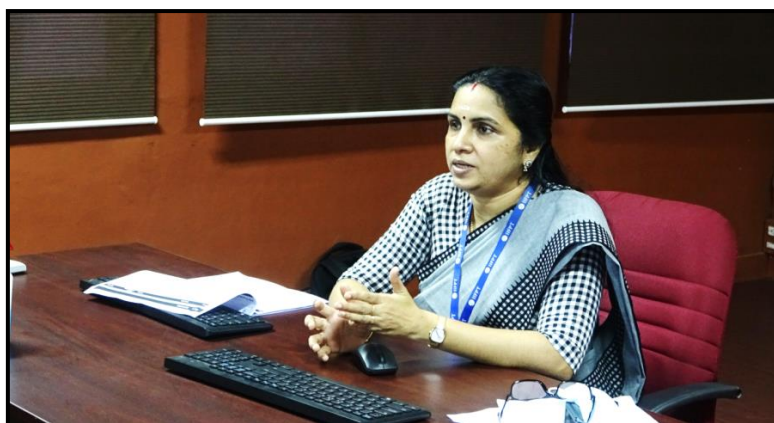
Speaker Detail: Dr. V. R. Sinija, Professor, IIFPT

Session Highlights: The session was about holistic inputs on food processing sub segments and India's position in those sub segments.

The session involved glimpses and overview on emerging food technologies for the food processing sector with a special emphasis on waste utilization, HPP processed foods, frozen technology, vacuum and freeze drying methods with examples of evolving technologies to reduce the capital intensiveness of the process.



The key highlights of the session involved discussion on future technologies, food trends in the purview of post Covid-19 scenario, food waste utilization, opportunities in the areas of artificial intelligence to map the food waste across supply chain.



The next part of the session provided overview about the PMFME scheme, various guidelines related to capacity building and introducing the concept of ODOP. Various queries were answered related to scheme assistance and ODOP.

Session.2

Time: 11:15a.m. - 01:15 p.m.

Session Topic: Plant layout and maintenance

Speaker Detail: Dr.AnjaneyuluChaganti, Director, Food Safety India Pvt. Ltd., Hyderabad.

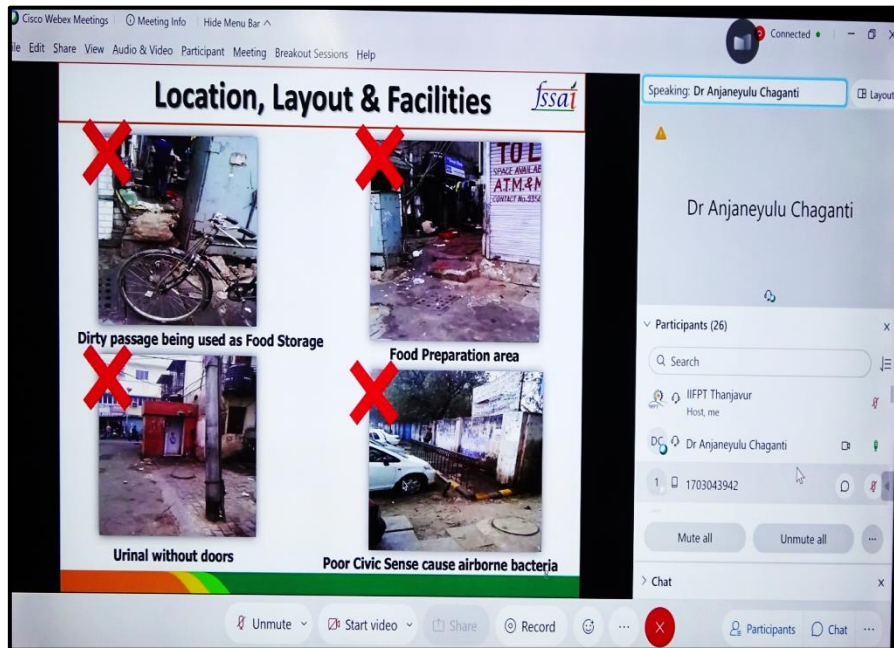
A screenshot of a Zoom meeting interface. The main window displays a slide titled "Index" with the following bullet points:

- Introduction to food plant design
 - Plant location
 - location factors
 - Site selection
 - layout - objectives,
- Classical and practical layout
- preparation of process chart and machinery layout
- product layout and process layout
- Repair and maintenance of equipment - preventive and breakdown maintenance
- Replacement of equipment.

The slide also features the "fssa" logo in the top right corner. On the right side of the screen, there is a video feed of Dr. Anjaneyulu Chaganti, who is speaking. Below the video feed is a list of participants, including IIFPT Cohost, IIFPT Thanjavur Host, Dr. Anjaneyulu Chaganti Cohost, and Agale Machhindra Gopinath. The Zoom control bar at the bottom shows options for Unmute, Start video, Share, and Chat.

Session Highlights: The session involved detailed discussion on various types of plant layouts and requirements. The session involved insights into facilities for the cleaning and disinfecting of equipment and instruments, placing of facilities like water, cleaning, personnel facilities, air quality, lighting and types of the layouts which can be adopted to reduce cross

contamination. Detailed inputs were provided for the sanitization processes, allowed sanitizers for food premises, do's and don't's, precautions and various points to remember.



The session was very interactive as the session expert engaged the participants by asking them their opinions and general practice they follow in relation to maintaining the premises food is being Handled, Processed, Manufactured, Packed, Stored and Distributed.

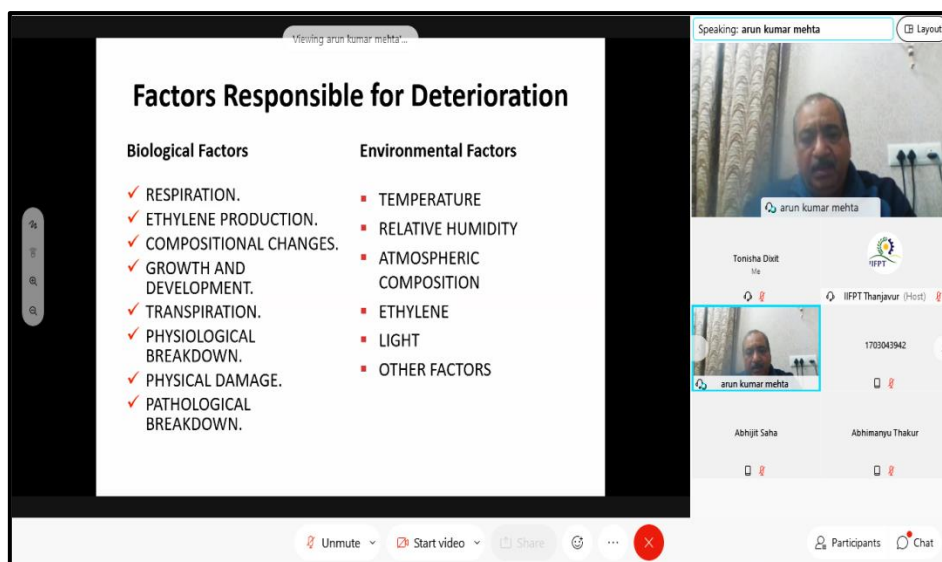
Session.3

Time: 02:00 p.m. - 04:00 p.m.

Session Topic: Selection, procurement and supply chain management of fruits and vegetables for processing industry

Speaker Detail: Shri. Arun Mehta, Advisor Reliance Retail Premium Fruit Business, Gurugram, New Delhi.

Session Highlights: The session involved the brief technical knowledge about the selection process, procurement and supply chain management of fruits and vegetable industry. The session covered the various factors of deterioration, field inspection and the identification and maturity of the fruits and vegetable. Further, different factors affecting the storage and the basic caring and handling instruction during transportation and storage were discussed.



On the part of quality parameters, the briefing involved the physical chemical and microbiological affects and their solutions that how can we protect fruits and vegetables during the whole process of supply chain.

Session.4

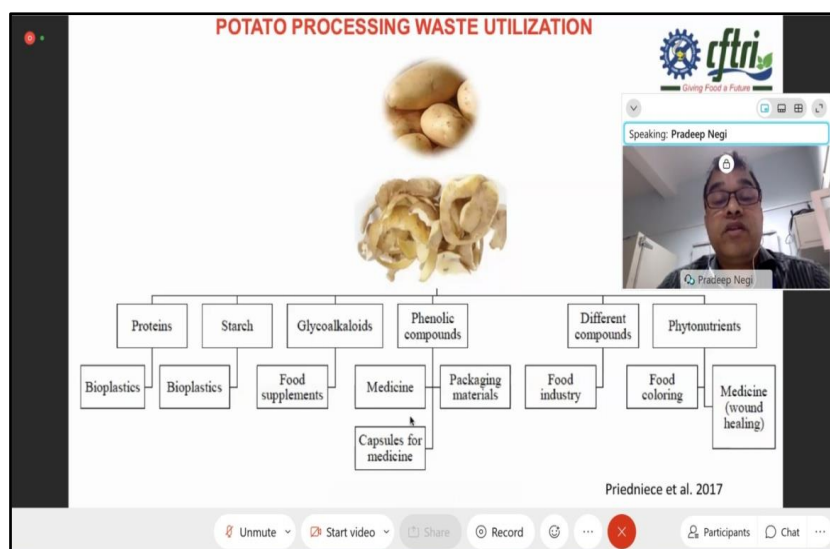
Time: 4:00 p.m. to 6:00 p.m

Session Topic: Value Addition of Fruits and Vegetables

Speaker Detail: Dr.Pradeep Singh Negi, Senior Principal Scientist, Fruit and vegetable

Session Highlights: The session involved the brief technical knowledge on the value addition in fruits and vegetables through processing. The session covered the process flow charts on beverages including juices (carbonated and non-carbonated), squashes, syrups, nectars, RTS, crushes, cordials. Further, knowledge has been imparted on preparation of concentrates-puree, sauces, ketchup, sugar conserves, pickles, chutney along with that microbiological specifications were discussed for all the products.

Insights were given on waste and by product utilisation of fruits and vegetables in the form of nutraceuticals and further future prospective on opportunities for the development of value added products from fruits and vegetables have been discussed.



Day- 2: 29th December 2020

Session Details:

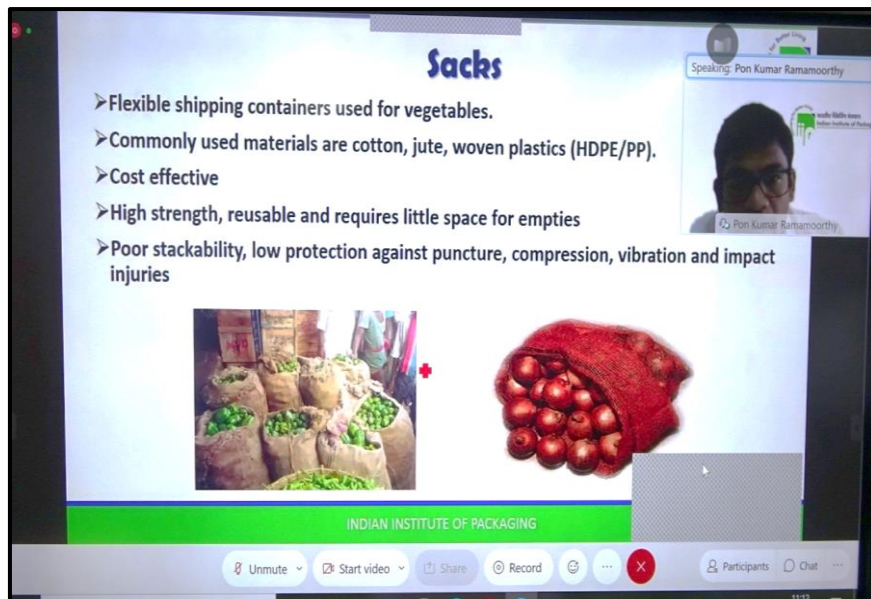
Session.1

Time: 10:00 a.m. to 11:30 a.m.

Session Topic: Packaging of Fruits and Vegetables Products

Speaker Detail: Mr. Pon Kumar R, Institute of Packaging

Session Highlights: The session involved the brief technical knowledge on packaging of fruits and vegetables. Different type of packaging material available in market namely, net bags, shrink wraps which can be used for packaging has been discussed. Various bulk packaging options including crates, pulp containers, sacks, crates have been discussed. The session ended up with the doubt clearing session.



Session.2

Time: 11:45 a.m. to 1:15 p.m.

Session Topic: Recent Packaging Techniques and Packaging Machineries

Speaker Detail: Dr.S. Anandakumar is a scientist and Head of Department, Food packaging and System Development, IIFPT.

Session Highlights: The session involved sharing the realistic and cost components associated with equipments, various resources to refer. It also involved extensive range of labelling and packaging techniques. A number of queries were asked by the participants which were being get clarified at the end of session.



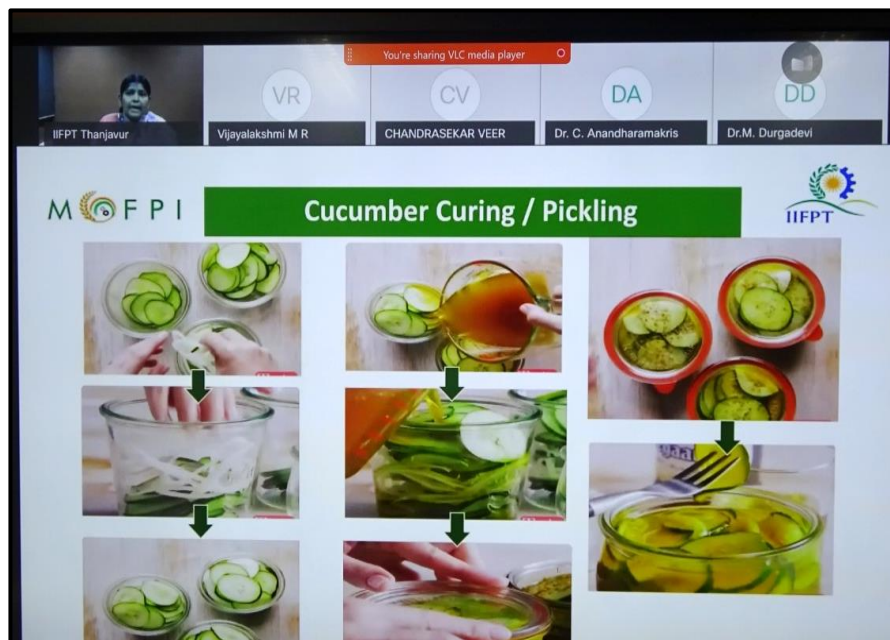
Session.3

Time: 2:00 p.m. to 6:00 p.m.

Session Topic: Demo and Self Learning: Value addition of Fruits and Vegetables

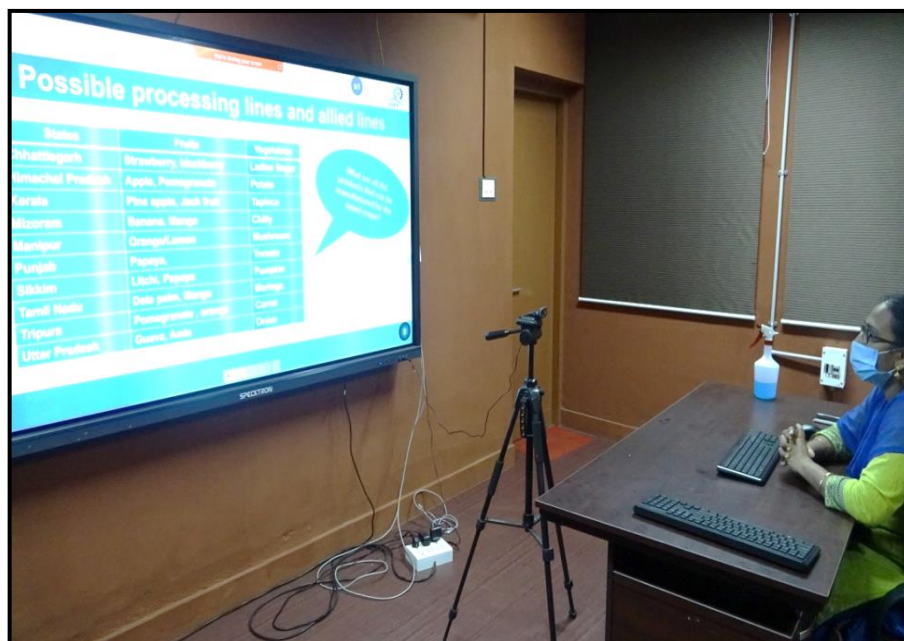
Speaker Detail: Dr. S. Akalya, Associate Professor; Dr. V. Hema, Assistant Professor and Dr. M. Durgadevi, Assistant Professor, Food processing and Business Incubation Center, IIFPT.

Session Highlights: The session started with the discussion by Dr. V. Hema. A number of value added products have been discussed including fermented sour pickles, semi- moist dried fruits, cucumber pickling and banana tea.





The session ended up with the activity given by Dr. M. Durgadevi. The activity involved suggesting few value added products which can be prepared from ODOP of different states along with that preparing layout plan for the processing lines.



Day- 3: 30th December 2020

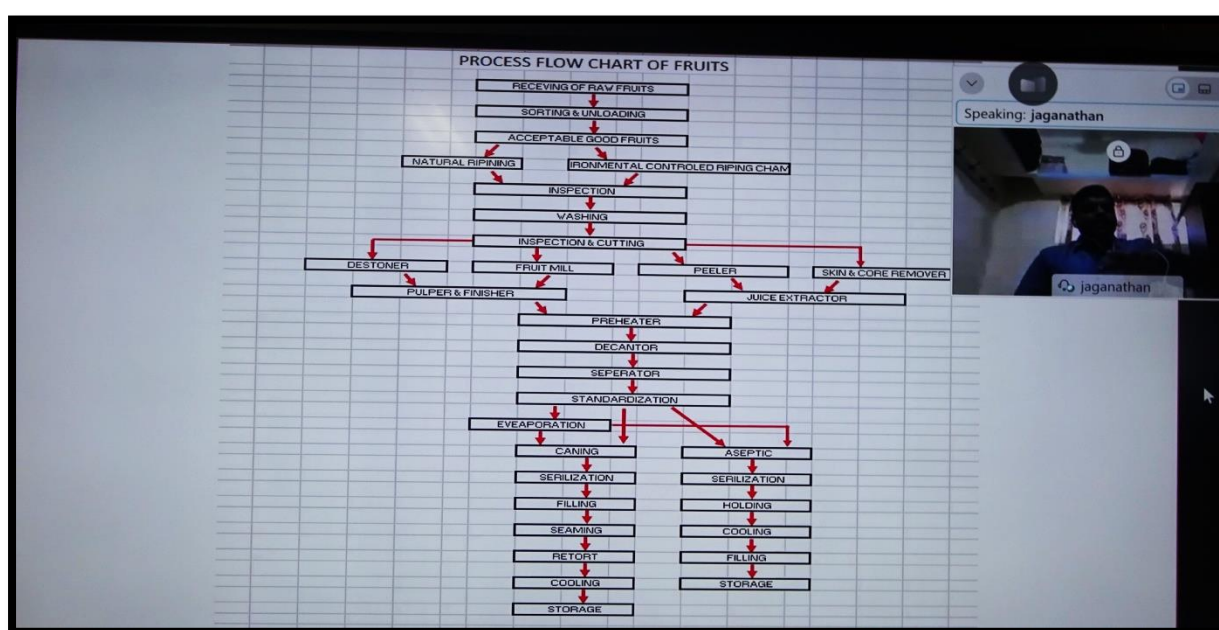
Session 1:

10.00 am – 12.00 pm

Session Topic: Equipments and Specifications of F&V processing

Speaker Detail: Shri Jaganathan G., Proprietor, Phoenix Global, Bangalore

Highlights: A very interesting and detailed session was taken by ShriJaganathan G on various equipments and specifications of fruits and vegetables processing. The extensive flow charts of majority of the fruits and vegetables. The videos of various processing were shown and explained to the participants and various pros and cons were explicitly discussed. The session was very informative with the specifications for majority of the value added products and capacity utilization in the purview of micro enterprises.



The illustrative process equipment for products of gherkins, pineapple, mango, fruit juices, pomegranate were discussed in details. The queries related to capacity and machine requirements for pilot scale processing and related areas were answered to the participants.

Session 2:

12.00 pm – 1.30 pm

Session Topic: Cleaning in Process

Speaker Detail: Shri Jaganathan G., Proprietor, Phoenix Global, Bangalore

Session Highlights: The session was on Cleaning in Process (CIP) for food business operators. The session included discussion on basics of cleaning in process, its relevance and importance for maintaining the quality of products, advantages and disadvantages of various types of systems. The details were provided about the impact of type of enterprises, scale of operations, material of equipment and pipelines on the type of food handling methods of

cleaning in process steps to be adopted. The session also took care of the relevance of the equipment to be used for cleaning process and methods of cleaning systems adopted.



Specific queries were asked by the participants about the product wise methods, details about the equipment used like bottle washer etc. The elaborative presentation was given for cleaning and sanitation schedules for some of the fruits and vegetables.

Session 3:

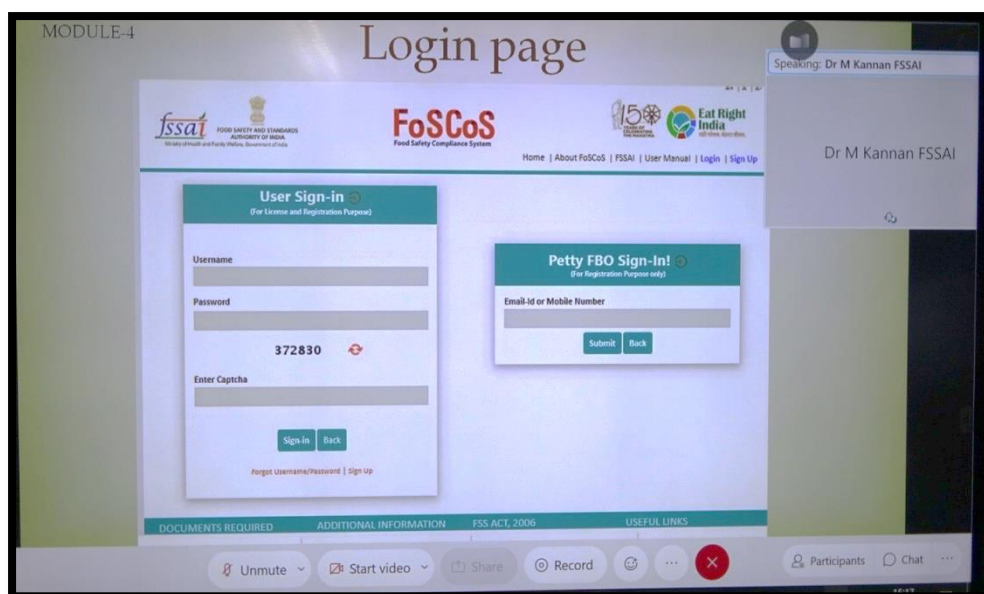
2.00 pm – 3.30 pm

Session Topic: Regulation & standards for maintaining food safety & quality

Session Speaker: Dr. M. Kannan, Central Designated officer, Southern Region, FSSAI

Session Highlights: The session involved discussion on various licensing systems, advanced technicalities of FOSCOS for hassle free licensing options, standard products mapping and ease of access to the information for food business operators. The session gave very clear understanding to the participants about the importance of food safety and standards regulations and discussion on various problems faced by food business operators and ways to manage that.

The queries on licensing and registration related to food business operators were answered and participants liked the session. They found the interaction very elaborative and all aspects of fruits and vegetable processing regulations were covered.



Session 4:

3.30 pm – 5.00 pm

Session Topic: Global and Indian scenario of food safety, quality and regulations for fresh and processed fruits & vegetables

Speaker Detail: Dr. Anil Kumar Chauhan, Professor (Food Technology), Banaras Hindu University, Varanasi

Session Highlights: The session was on global and Indian scenario of food safety, quality, and regulations for fresh and processed fruits and vegetables. The session provided the glimpse on the food wastage and status of processing of fruits and vegetables globally. The discussion highlighted the need to reduce risks associated with product quality decay and contamination throughout the fresh fruit and vegetables chain. The examples of retail sector categories for fresh produce were discussed with importance of integrating the local vendors with the organized retailers.

The session involved overview of risk analysis process and assessing along with SWOT analysis, risk factors influencing the food safety and quality and common food supply chain issues. A glimpse about the FSSAI regulations encompassing both quality and safety parameters were covered.



Day- 4: 31st December 2020

Session 1:

10.00 am - 1.15 pm

Session Topic: Need and various aspects of food testing & notified NABL, Referral and Reference Labs in India, GMP, GHP, GLP practices relevant to fruits and vegetable processing. HACCP and its implementation

Speaker Detail: Mr. Sanjay Indani, Head, Food Safety, SafeFoodz Solutions, Navi Mumbai

Session Highlights: The session encompassed practical examples related to food testing aspects and food additives in the various value added food products. The session was interactive with intermittent questions been asked to the participants and discussions. The participants were continuously engaged with the discussion on the GMP provisions, minimum quality requirements for micro entrepreneurs, challenges they may face, new products not listed in FSSR and basic food items.

SAFEFOOD3 SOLUTIONS

Laboratories & their levels
 Details of primary and referral food testing laboratories

Primary food testing laboratories		
1	State food laboratories	12
2	Labs of Central Government institutes/autonomous bodies	19
3	Private laboratories	144
4	Government laboratories under transition provision*	76
5	Total primary food testing laboratories	251
Referral food testing laboratories		
7	Labs under Central Government institutes/autonomous bodies	16
8	Food Authority's own laboratories	02
9	Total referral laboratories	18

(* recognized and notified under the transition provision under section 98 of FSS Act 2006)

Speaking: Sanjay INDANI

Sanjay INDANI

Unmute Start video Share Record Participants Chat

The session covered aspects of GHP, GLP practices relevant to fruits and vegetables processing. Lots of queries of participants were answered related to fruits and vegetable value added products regulations for the food business operators. The manual of methods of analysis of foods was discussed wherein various standards have been mentioned. Various international guidelines were shared about the different types of the good practices related to food handling.

Session 2:

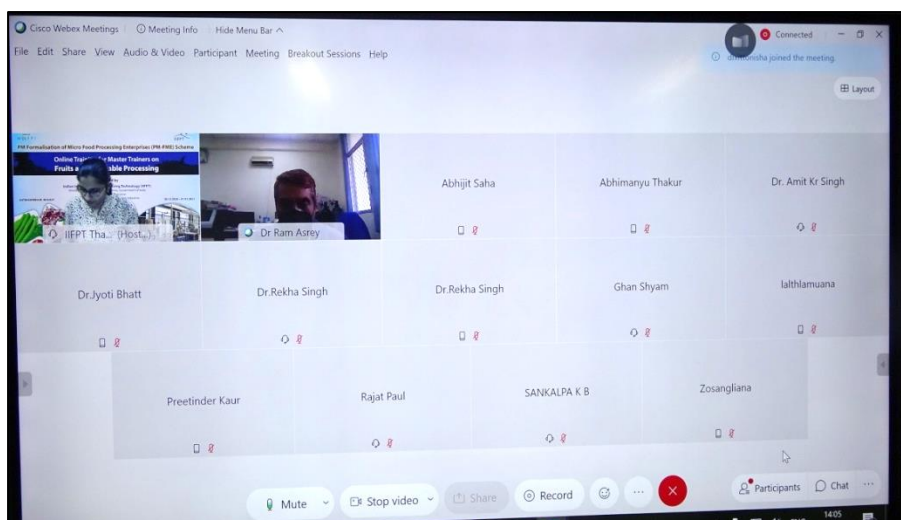
2.00 pm – 3.00 pm

Session Topic: Advances in storage of F&V

Speaker Detail: Dr. Ram Asrey, Principal Scientist, IARI, New Delhi

Session Highlights: The session was on advances in storage of fruits and vegetables. The session involved discussion on controlled atmosphere and modified atmosphere storage infrastructure facilities, various value addition methods and its implication. Detailed information was shared on the conventional and advanced storage methods.

Drivers and challenges for cold chain and controlled atmosphere storage and benefits of CA storage and details of fruits and vegetables stored. The comparative analysis MA, CA and Hypobaric storage was very detailed and informative for the participants



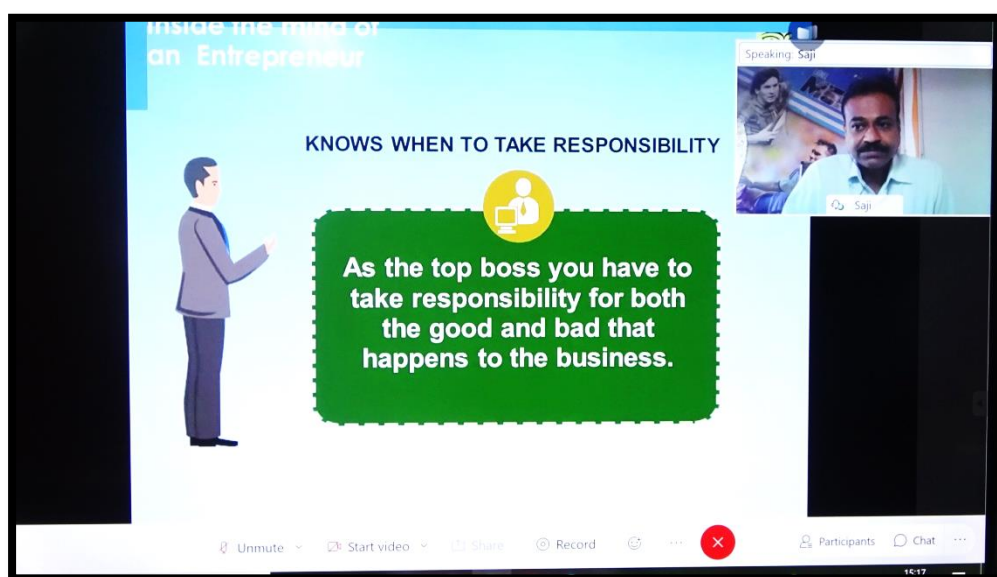
Session 3:

3.00 pm – 7.00 pm

Session Topic: Emotional self-management, leadership and teaming skills Entrepreneurial, networking and problem management competencies Confidence building and stress management

Speaker Details: Mr. S. George, Senior Leadership and Soft Skill Facilitator, Drishti Centre for Excellence, Mumbai

Session Highlights: The session was on emotional self-management, leadership, and teaming skills. The session was more practical and interactive, with participants been involved through videos, surveys and discussions. Illustrative discussion on Entrepreneurial Approach / Mind-set was carried out describing characteristics and mindset, states of behaviour and personality types. The session involved assessing networking skills, leadership capabilities and characteristics, networking dynamics and team skills.



The discussion was further on ways to build confidence among People, A to Z of stress management, root cause analysis, the interrelation and the process and the method of cause and effect analysis.

Day- 5: 1st January 2021

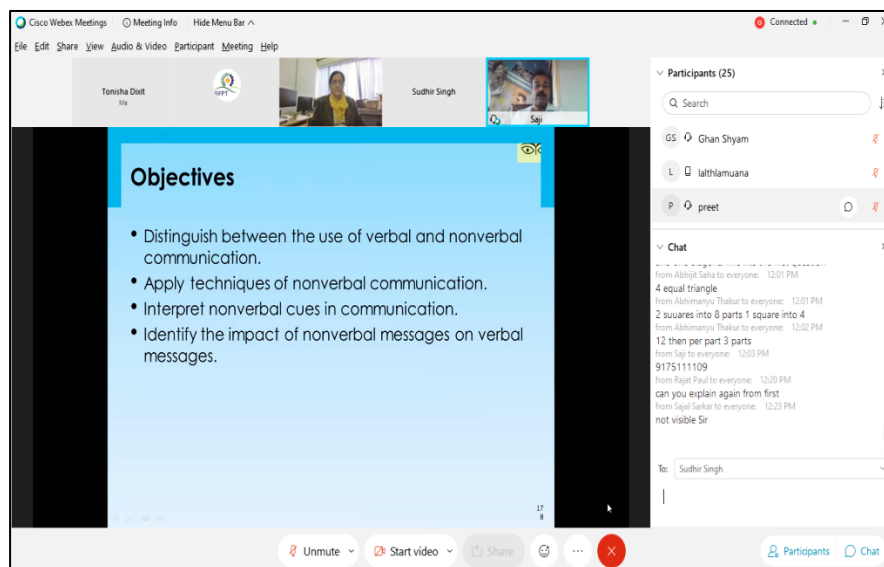
Session 1:

10.00 am – 1.30 pm

Session Topic: Developing creativity, innovative thinking & risk taking ability Effective communication skills Goal setting for performance

Speaker Details: Mr. S. George, Senior Leadership and Soft Skill Facilitator, Drishti Centre for Excellence, Mumbai

Session Highlights: The session was on creativity and innovation and how to manage stress. The session involved illustrative images to brainstorm the participants, videos engaging the participants on how to be innovative, overview on difference between creativity and innovation, mind mapping, reframing, assumption reversal, analogies and metaphorical thinking, discontinuity, brainstorming, discussion and possible barriers. The psychometric tests were carried out during the session and results were discussed for self-assessment.



A very interactive discussion took place on understanding risks & mitigating them and effective communication skills. A very interesting illustrative interaction was carried out on importance of verbal and non-verbal communication for making it effective. Towards the end, various mental exercises were carried out with participants with a briefing on goal setting.

FICSI Assessment

2.00 pm onwards

State wise participants' details for Fruits and Vegetable phase 2 training program:

State/ U.T	Number of Participants
Tripura	3
Tamil Nadu	1
Kerala	2
Uttar Pradesh	6
Mizoram	2
Sikkim	1
Himachal Pradesh	2
Chhattisgarh	3
Manipur	1
Punjab	2
