

Online Training for Master Trainers

on

Grain Processing

21.12.2020 to 23.12.2020 and 28.12.2020 to 29.12.2020

Organized by

CSIR-Central Food Technological Research Institute (CFTRI)

In association with

Indian Institute of Food Processing Technology (IIFPT)

Inaugural Session Details

21.12.2020 (Monday)

Session

Time: 10.00 am -10.15 am

The Training of Master Trainer's Program in the domain of Grain Processing under PM FME scheme was inaugurated by Director, CSIR-CFTRI.



Session

Time: 10.15 am -11.15 am

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

Speaker Detail: Dr. C. Anandharamakrishnan, Director, IIFPT.

Session Highlights:

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

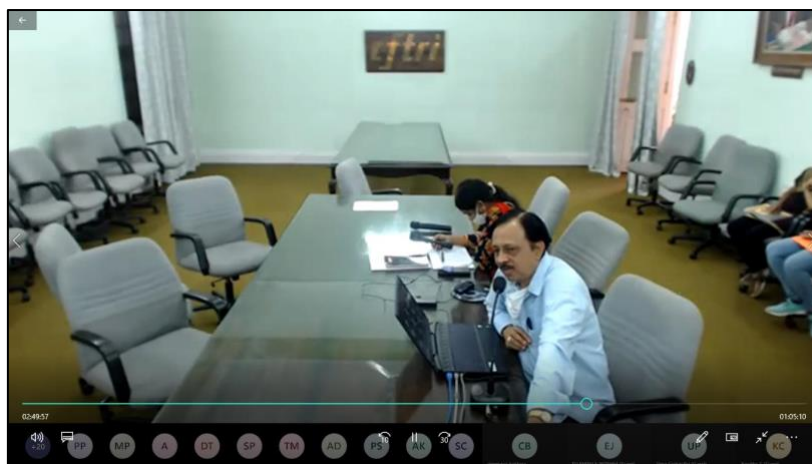


Day 1: 21.12.2020 (Monday)

Session Details:

11.30 am -01.30 pm	Status and Scope of grain processing	Mr. Sathyendra Rao B.V, Department of Food Engineering, CFTRI.
02.00 pm -03.00 pm	Equipments and specifications of machineries grain processing -1	Dr. Suresh D Sakhare, Principal Scientist, CFTRI.
03.00 pm -04.00 pm	Equipments and specifications of machineries grain processing -2	Dr. Aashitosh Inamdar, Principal Scientist, FMBCT Dept., CFTRI
04.00 pm -06.00 pm	Demo/Self learning	Dr. Suresh D Sakhare, Principal Scientist, CFTRI Dr. Aashitosh Inamdar, Principal Scientist, FMBCT Dept., CFTRI

The sessions involved overview of the scenario of processing of some of the major grains briefly on rice, wheat, pulses and other coarse grains. There are a large number of indigenous machinery manufacturers catering to the needs of rice, wheat, pulses and coarse grain milling and the baking industry. The training program involved food grain production, processing and products in the country. The training emphasized on changing consumer market scenario, increased purchasing power, burgeoning middle class population, increasing number of women work force, drifting lifestyles from traditional values & consumption patterns, presence of international players in the market, liberalization of imports proliferation of visual media and health consciousness are altering the landscape of the grain processing industry in the country.



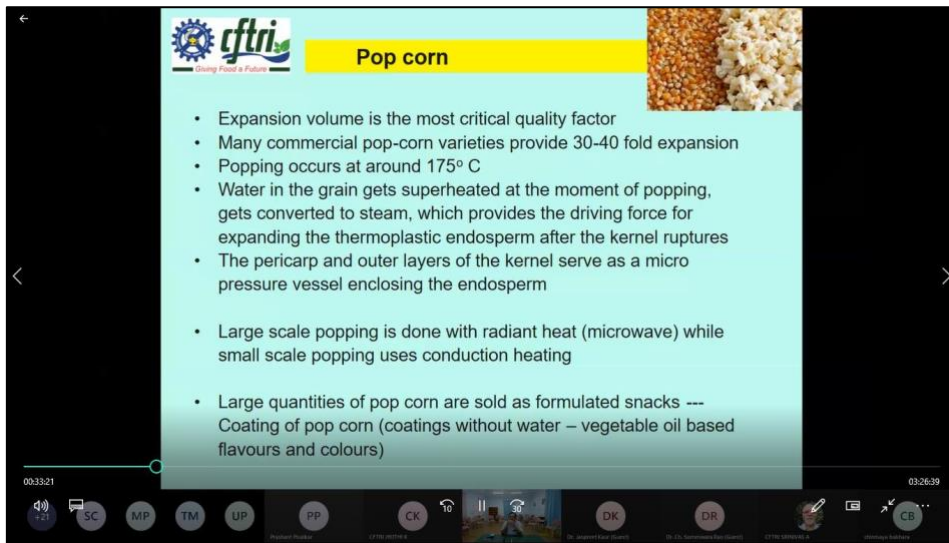
Day 2: 22.12.2020 (Tuesday)

Session Details:

09.30 am -10.30 am	Corn processing	Mr. Sathyendra Rao B.V, Department of Food Engineering, CFTRI
10.30 am -11.30 am	Paddy processing	Mr. Srinivas A, Department of Grain Science and Technology, CFTRI.
11.30 am -12.30 pm	Cereal-Based Snack Foods-1	Dr. Jayadeep A, Head & Senior Principal Scientist, Grain Science Technology Department, CSIR-CFTRI
12.30 pm -01.30 pm	Cereal-Based Snack Foods-2	Dr. Jayadeep A, Head & Senior Principal Scientist, Grain Science Technology Department, CSIR-CFTRI
02.00 pm-03.00 pm	Breakfast cereals-1	Dr. Meera M.S, Senior Principal Scientist, Grain Science Technology Department, CSIR-CFTRI
03.00 pm -04.00 pm	Packaging of Grains and Value added products-1	Mr. Sathish H. S, Scientist, Food Packaging Technology Department, CSIR-CFTRI
04.00 pm -05.00 pm	Packaging of Grains and Value added products-2	Mr. Rajeshwar S Matche
05.00 pm -06.00 pm	Breakfast cereals-2	Dr. Meera M. S, Senior Principal Scientist, Grain Science Technology Department, CSIR-CFTRI

The sessions during the day involved discussion and imparting knowledge about the individual grains in detail and processing of their value added products. Further, the discussions covered recent trends and products in demand pertaining to the ready to cook and ready to eat segments. Ready-to-eat puffed/expanded products from some of these grains can be attractive and healthy alternative can be

used as ready-to-eat breakfast foods. Some of the processes developed at CFTRI based on these grains were discussed.



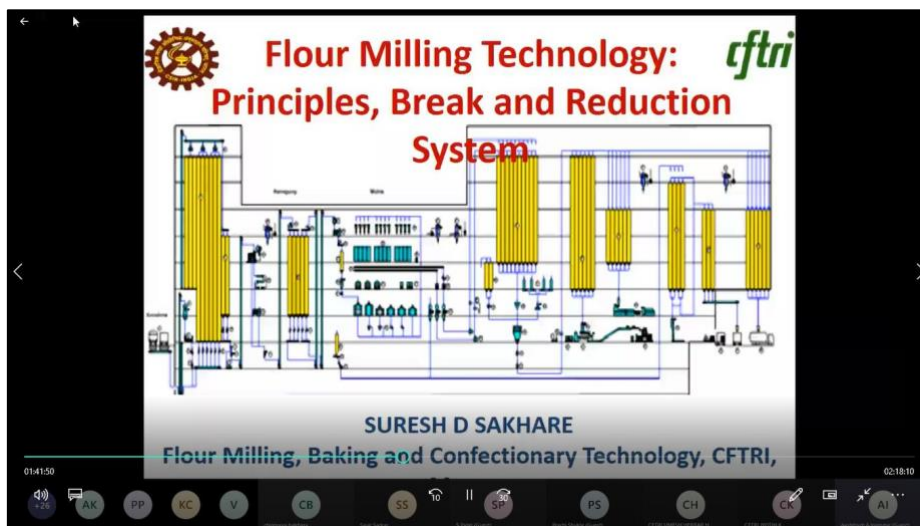
Pop corn

- Expansion volume is the most critical quality factor
- Many commercial pop-corn varieties provide 30-40 fold expansion
- Popping occurs at around 175° C
- Water in the grain gets superheated at the moment of popping, gets converted to steam, which provides the driving force for expanding the thermoplastic endosperm after the kernel ruptures
- The pericarp and outer layers of the kernel serve as a micro pressure vessel enclosing the endosperm
- Large scale popping is done with radiant heat (microwave) while small scale popping uses conduction heating
- Large quantities of pop corn are sold as formulated snacks --- Coating of pop corn (coatings without water – vegetable oil based flavours and colours)

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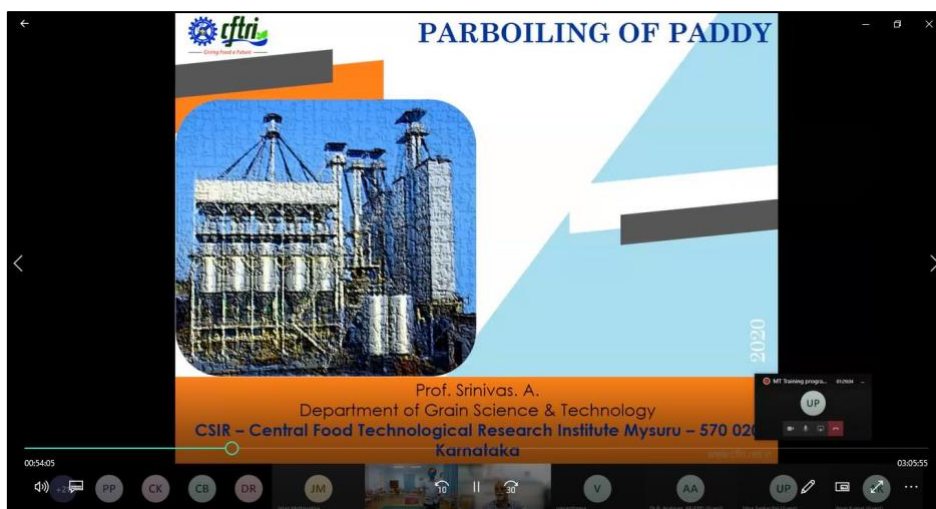
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Flour Milling Technology: Principles, Break and Reduction System

SURESH D SAKHARE
Flour Milling, Baking and Confectionary Technology, CFTRI,

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Day 3: 23.12.2020 (Wednesday)

09.30 am -11.30 am	Plant layout and maintenance for Grain processing	Mr. Srinivas A, Department of Grain Science and Technology, CFTRI.
11.30 am -12.30 am	Food Quality, Food Safety and Food Testing	Dr. Alok Srivastava
12.30 pm -01.30 pm	Food Regulation in India - FSSAI, BIS	Mr. Aruna Kumar
02.00 pm -04.00 pm	GMP, HACCP Practices in Food Processing	Mrs. V. Vanajakshi
04.00 pm -06.00 pm	Packaging of Grains and Value added products-3	Mr. Sathish H.S, Scientist, Food Packaging Technology Department, CSIR-CFTRI Mr. Rajeshwar S Matche, Chief Scientist, Food Packaging Technology Department, CSIR-CFTRI

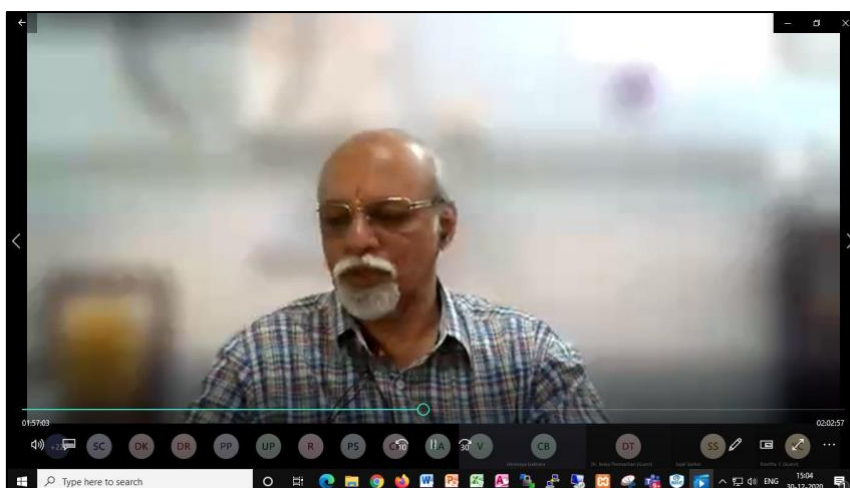
The training program included the sessions covering quality control and assurance aspects in detail. With the discussions on various processing layouts and suitability as per the scale of operations for various processing units like rice milling, maize milling and pulses milling units. The sessions further involved inputs on current trends in packaging and storage of whole grains/ flours and sugar. The session covered various plastic packaging material usage and their impact on the shelf life of the value added products of grains.



Day 4: 28.12.2020 (Monday)

09.30 am -10.30 am	FSSAI Registration and Licensing Regulations, FSSAI Packaging and Labelling Regulations	Mr. Aruna Kumar, Senior Technical Officer, Food Safety & Analytical Quality Control Laboratory CSIR- CFTRI
10.30 am -11.30 am	Need for Accreditation of Food Labs under NABL, GLP and Roles of Referral and Reference Labs under FSSAI	Dr. Alok Kumar Srivastava, Chief Scientist and Head, Food Safety & Analytical Quality Control Laboratory CSIR- CFTRI
11.30 pm -01.30 pm	Nutritional Analysis of Foods and Use of instrumental techniques in food labs	Dr. Shivasankar Reddy Singam, Food Safety & Analytical Quality Control Laboratory, CSIR- CFTRI
02.00 pm -04.00 pm	Soft skills and Communication-1	Faculty from Xavier Institute of Management & Entrepreneurship (XIME)
04.00 pm -06.00 pm	Demo/Self learning	Faculty from Xavier Institute of Management & Entrepreneurship (XIME)

The sessions covering various aspects of FSSAI Registration and Licensing Regulations, FSSAI Packaging and Labelling Regulations was discussed in detail. During the session, various queries of participants was answered pertaining to the challenges faced by food business operators. The critical aspects of quality assurance and adherence to quality standards, with detailed discussion on testing facilities was discussed.



Day 5: 29.12.2020 (Monday)

09.30 am -11.30 am	Soft skills and Communication-2	Faculty from Xavier Institute of Management & Entrepreneurship (XIME)
11.30 am -01.30 am	Soft skills and Communication-3	Faculty from Xavier Institute of Management & Entrepreneurship (XIME)

State wise participant details for Grain processing training program:

State/ U.T	Number of Participants
Andhra Pradesh	1
Assam	1
Bihar	1
Chhattisgarh	3
Delhi	2
Gujarat	1
Himachal	1
Karnataka	3
Kerala	2
Madhya Pradesh	2
Maharashtra	2
Meghalaya	1
Nagaland	1
Odisha	2
Punjab	2
Rajasthan	1
Sikkim	1
Tamil Nadu	4
Telangana	2
Tripura	2
U.T of Dadra and Nagar Haveli and Daman & Diu	1
Uttar Pradesh	1

