

# REPORT ON CERTIFICATION PROGRAM **DAIRY PROCESSING**



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Protein Foods & Nutrition Development Association of India (PFNDAI) recently organized a Certification Program on “Dairy Processing”. The program was designed for students planning to have a career in the food/ dairy industry and food industry professionals. It aimed to cover the concepts behind different types of milk & dairy products, scientific principles in dairy processing and preservation, and the FSSAI regulations for dairy products. The course was conducted online on 14 August 2020 and held in two sessions, one in the morning and another in the afternoon.

For the course, we had instructors- Dr Prabhakar Kanade (Principal Consultant, M/s Supraks Consultant) and Dr Jagadish Pai (Executive Director, PFNDAI), along with Ms Swechha Soni (Manager- Food Science &

Nutrition, PFNDAI) as the moderator. The course was attended by around 250 people. The attendees included scientists, food entrepreneurs, professionals working in food industries and regulatory bodies, professors, research scholars, students, and dieticians.

The programme started with a

welcome by Ms Swechha Soni; a brief introduction by Dr Pai about PFNDAI and the work done by the organisation. Following were the presentations.

Science & Principles behind Milk & Milk Products: By Dr Jagadish Pai;

Dr Pai started the course with the introduction of basic concepts in the milk processing industry. He further explained important concepts like - the composition of milk, FSSAI

standards for different types of milk products, the role of milk analysis in detecting adulteration, how milk affects human health, and principles of preservation.





skimmed milk powder, and what steps can be taken to ensure product quality and safety.

He then explained the various steps involved in the processing of milk, different types of heat treatment that can be used and how they help to extend the shelf life of the

products.

The audience had few questions and concerns that were addressed by Dr Kanade in a Q & A session.

Dairy Products Processing:  
By Dr Prabhakar Kanade;

The first half of the afternoon session focused on the processing of various dairy products such as ghee, yoghurt, cheese and frozen desserts. Dr Kanade talked about the FSSAI definitions of these products, the basic processes involved in their processing and the factors that are taken into consideration when deciding fermentation cultures for different products. To help the audience understand these concepts

clearly, he also talked about the difference in various dairy products like- curd and yoghurt, cheese and paneer, coffee whitener and dairy whitener, frozen desserts and ice cream.

This was followed by a brief Q & A round, where Dr Kanade and Dr Pai jointly answered the questions raised by the participants.

Food Safety in Milk Products:  
By Dr Prabhakar Kanade;

Dr Kanade in his presentation talked about how if milk is not properly processed, it can result in a product that is unsafe for consumption and make people sick. He explained all the causes of poor hygienic conditions with the main focus on CIP (Cleaning in Place) and the measures that can be taken to produce safer food. He also talked about the current status of dairy products standards, and food safety and labelling regulations set by FSSAI in India.

The day ended with a brief Q & A session moderated by Swechha Soni, where Dr Pai and Dr Kanade cleared all the doubts raised by the attendees.

At the end of the presentation, there was a short Q & A session held where he answered the questions and doubts raised by the participant.

Raw Milk and Processing:  
By Dr Prabhakar Kanade;

Dr Kanade in his presentation talked in detail about various quality parameters- physical, chemical and microbiological- that are studied during the analysis of milk to ensure that milk is safe and not adulterated. He covered advanced concepts like- various raw milk procurement methods adopted by dairy industries, the effect of different storage temperatures on bacterial growth in milk, the impact of bacterial load on quality of milk and

