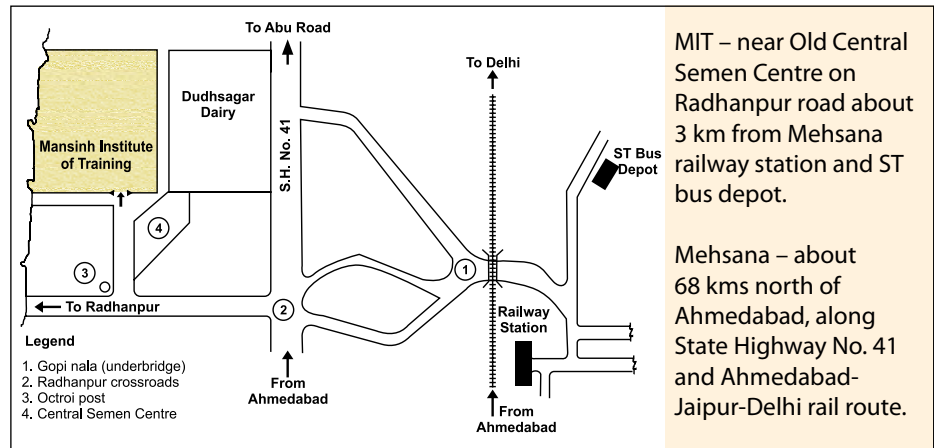




Mansinh Institute of Training
National Dairy Development Board



Competent and trained plant personnel are an asset to dairy cooperatives facing the challenges of an increasingly competitive environment. For over three decades, the training offered by the Mansinh Institute of Training (MIT) in the areas of operation & maintenance of dairy and cattle feed plants, utilities, plant management, quality assurance and food safety has contributed to the capacity building of plant personnel in dairy cooperatives.

Established in 1976 by the National Dairy Development Board, MIT has till date, trained over 13,100 participants from 65 institutions in India and abroad. It has constantly strived to upgrade its training keeping in view the developments in the dairy sector and the feedback received from client organisations. Besides regular programmes, MIT also offers custom-made programmes to meet specific training needs.



Teaching Block

Contact details

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Lecture session

Programmes 2012-13

April 2012		May 2012		June 2012	
TP 01 NDP/ In situ/Custom-made		TP 02 BMC & AMCU for ensuring good quality milk		TP 05 Sustainable quality through – Quality & Food Safety Management Systems	
		Period- 7 to 11 May	Fee: ₹ 3343	Period- 4 to 8 June	Fee: ₹ 3343
		TP 03 NDP/ In situ/Custom-made		TP 06 Increased productivity by minimising maintenance in dairy plants	
				Period- 13 to 20 June	Fee: ₹ 5349
		TP 04 NDP/ In situ/Custom-made		TP 07 Enhance profitability by economising milk solids loss	
				Period- 25 to 29 June	Fee: ₹ 3343
July 2012		August 2012		September 2012	
TP 08 Energy conservation for increasing profitability		TP 11 Sustainable quality through – Quality & Food Safety Management Systems		TP 15 Energy conservation for increasing profitability	
Period-04 to 11 July	Fee: ₹ 5349	Period- 6 to 10 Aug	Fee: ₹ 3343	Period- 4 to 11 Sept	Fee: ₹ 5349
TP 09 Hygiene & Sanitation - a Scientific GHP approach for dairy plants		TP 12 Electrical systems and a step towards dairy plant automation		TP 16 Effective Milk Processing & Packaging Operations	
Period-16 to 20 July	Fee: ₹ 3343	Period- 22 to 29 Aug	Fee: ₹ 5349	Period- 11 to 18 Sept	Fee: ₹ 5349
TP 10 Effective Milk Processing & Packaging Operations		TP 13 Improved Cattle Feed production in modern plants		TP 17 Hygiene & Sanitation - a Scientific GHP approach for dairy plants	
Period-24 to 31 July	Fee: ₹ 5349	Period- 27 to 31 Aug	Fee: ₹ 3343	Period- 24 to 28 Sept	Fee: ₹ 3343
		TP 14 NDP/In situ/Custom-made			

* O & M: Operation & Maintenance

** Sup / Tech: Supervisor / Technician



October 2012		November 2012		December 2012	
TP 18 Increased productivity by minimising maintenance in dairy plants		TP 21 Enhance profitability by economising milk solids loss		TP 24 Know Everything about good Ice-Cream making	
Period- 09 to 16 Oct	Fee: ₹ 5349	Period- 05 to 09 Nov	Fee: ₹ 3343	Period- 3 to 7 Dec	Fee: ₹ 3343
TP 19 Sustainable quality through – Quality & Food Safety Management Systems		TP 22 Efficient refrigeration systems for reducing energy bills		TP 25 Reducing pollution through efficient steam generation & distribution	
Period- 15 to 19 Oct	Fee: ₹ 3343	Period- 15 to 22 Nov	Fee: ₹ 5349	Period- 10 to 14 Dec	Fee: ₹ 3343
TP 20 NDP/ In situ/Custom-made		TP 23 NDP/In situ/Custom-made		TP 26 NDP/In situ/Custom-made	
January 2013		February 2013		March 2013	
TP 27 Effective Milk Processing & Packaging Operations		TP 30 Energy conservation for increasing profitability		TP 33 BMC & AMCU for ensuring good quality milk	
Period-02 to 09 Jan	Fee: ₹ 5349	Period- 6 to 13 Feb	Fee: ₹ 5349	Period- 4 to 8 Mar	Fee: ₹ 3343
TP 28 DSC Students/Custom-made		TP 31 Enhance profitability by economising milk solids loss		TP 34 DSC Students/Custom-made	
Period-07 to 11 Jan	Fee: ₹ 2388	Period- 18 to 22 Feb	Fee: ₹ 3343	Period- 11 to 15 Mar	Fee: ₹ 2388
TP 29 Hygiene & Sanitation - A scientific GHP approach for dairy plants		TP 32 DSC Students/Custom-made		TP 35 Sustainable quality through – Quality & Food Safety Management Systems	
Period-21 to 25 Jan	Fee: ₹ 3343	Period- 25 Feb to 1 Mar	Fee: ₹ 2388	Period- 18 to 22 Mar	Fee: ₹ 3343

Content of Programmes in Brief

Sustainable Quality through – Quality & Food Safety Management Systems – TP Nos: 05, 11, 19, 35	Increased productivity by minimising maintenance in dairy plants (Dairy Plant Maintenance) - TP Nos.: 06, 18	Enhance profitability by economising milk solids loss - TP Nos.: 07, 21, 31
<p>Quality and food safety management, total quality management concept and principles related to milk, milk products and cattle feed. Fundamentals and implementation of ISO 9000, 14000, 22000 series.</p> <p>Hazard Analysis and Critical Control Points, prerequisites for implementation of quality and food safety management systems including GHP and GMP.</p> <p>Importance of QC & Good Lab Practices for sustainable quality.</p> <p>Various statutory food safety regulations such as PFA/ FSSA 2006/ Agmark/ EIC.</p> <p>Food quality issues under Codex/WTO.</p> <p>Study visit to a dairy plant</p>	<p>Importance of maintenance, industrial engineering approach, preventive, predictive and corrective maintenance.</p> <p>Maintenance practices in milk reception, processing, packaging, product manufacture, condensing & drying plant, refrigeration, boiler, effluent treatment plant and electrical equipment.</p> <p>Study visit to a dairy plant</p>	<p>Identification of areas and quantum of losses, recovery system and its financial implication in dairy plant management, good maintenance to minimising losses, record keeping and milk solids loss accounting system.</p> <p>Recent innovations for loss reduction.</p> <p>Importance of QC lab & Good Lab Practices in optimising solids loss. Case studies, classroom calculations, experience sharing & bench marks.</p> <p>Lab practices, analytical procedures, validations.</p> <p>Study visit to a dairy plant.</p>
Energy conservation for increasing profitability - TP Nos.: 08, 15, 30	Effective Milk Processing & Packaging Operations - TP Nos.: 10, 16, 27	Hygiene & Sanitation - a Scientific GHP approach for dairy plants - TP Nos.: 09, 17, 29
<p>Sources of energy, conservation of energy in milk processing and product manufacture in a dairy plant.</p> <p>Energy conservation in steam generation, its distribution, compressed air systems, refrigeration plant and electrical systems, water conservation. Introduction to non-conventional energy sources.</p> <p>Study visit to a dairy plant</p>	<p>Construction & Operation of milk reception equipment, pasteuriser, separator, CIP system, homogeniser, pneumatic valves, pumps etc.</p> <p>Construction, operation of sachet filling machine.</p> <p>Minimising milk and film losses, plant hygiene, and record keeping. Energy conservation, product loss prevention, plant hygiene.</p> <p>Preventive maintenance, troubleshooting of equipments in dairy plant.</p> <p>Recent innovations.</p> <p>Workshop practices on milk pasteuriser, separator, homogeniser, pumps, valves etc.</p> <p>Study visit to a dairy plant</p>	<p>Milk composition, its properties and quality.</p> <p>Hygiene and its relevance, personal hygiene and its effect on milk and milk products. Detergents, sanitizers and their properties. Importance of CIP, cleaning schedule and its implementation.</p> <p>Introduction to ISO, HACCP, GHP and GMP.</p> <p>Study visit to a dairy plant</p>



Electrical systems and a step towards dairy plant automation - TP Nos.: 12	Efficient refrigeration systems for reducing energy bills - TP Nos.: 22	Reducing pollution through efficient steam generation(Boiler) - TP Nos.: 25
<p>Electrical substation & distribution system. Application of single and three phase motors. Autotransformer, Star-delta and DOL starters, testing and polarity test. Air and oil circuit breakers, control and power wiring. Control of maximum demand, improving power factor, capacitor assessment. Economic lighting in a dairy plant. Interlocking of equipment, solenoid control, single phasing preventer, timer switches. Essential components of plant automation- Basics of Measuring Techniques, Introduction & Designing of Smart Power Control Centre & Smart Motor Control Centre with basics and Basics of Programmable Logic Control (PLC) Safety norms for electrical systems. Operation, troubleshooting of electrical system and DG set. Study visit to electrical section of a dairy plant.</p>	<p>Refrigeration cycle, types of refrigerants, construction, operation, ice bank tank system. Air purger & water rectifier. Cold storage and deep freeze air cooling system. Overfeed refrigeration systems- Screw compressors, efficient condensers & cooling towers. Liquid feeding system & controls for various evaporators equipment Energy conservation and plant operating efficiency parameters. Refrigerant charging, air purging, draining of oil & water. Predictive and corrective maintenance. Safety precautions. Study visit to refrigeration section of a dairy plant.</p>	<p>Types of boilers, types of fuel burners, mountings, accessories, types of fuels, combustion process, steam generation, distribution, quality of steam and boiler blow down. Operating parameters affecting boiler performance, boiler efficiency, costing of steam, case studies. Valves and feed water pumps, feed water treatment, operation of water softening plant. Recent innovations. Study visit to boiler section of a dairy plant.</p>
Know Everything about good Ice-Cream making- TP Nos.: 24	BMC & AMCU for ensuring good quality milk- TP Nos.: 02, 33	Improved Cattle Feed production in modern plants - TP Nos.: 13
<p>Science of ice cream, current scenario of ice cream, ingredients and selection of ingredients. Formulae, recipe selection, mix processing, packaging, hardening, storage, transportation etc. CIP, hygiene & sanitation in ice cream plant. Various standards of ice cream, HACCP plan, Quality of ice cream, shelf life of ice cream etc. New developments in ice cream manufacturing.</p>	<p>Milk, its composition, quality aspects. Basic concept of milk cooling, milk quality vis-à-vis cooling. Types of Bulk Milk Coolers (BMCs). Operation, maintenance, troubleshooting of BMC, DG set, voltage stabilizer etc. Importance of BMC CIP. Investment versus long-term benefits of installing BMCs. Components of Automatic Milk Collection Unit (AMCU), hardware, analyzer, EWS & EMT. Significance of AMCU in raw milk quality and transparency in procurement operation. Cleaning & care for better performance of the AMCU and tips for data protection.</p>	<p>Nutritional and Quality control aspects related to cattle feed production and other feed supplement, including least-cost feed formulation. Balanced feed composition. Raw material management. Principle, construction, operation, preventive maintenance, trouble shooting, safety and cleaning aspects of cattle feed plant equipment & urea molasses block units. Utility services, energy conservation. Recent innovations. Workshop practices Study visit to a cattle feed plant.</p>

Custom-made programmes:

- Meet the exclusive training requirement of a single client
- Focus on specific themes and are designed to suit client's need
- Need a minimum batch size of ten participants
- Organised as residential programmes at MIT or as on-the-job training (OJT) at the client's plant/premises

TP Nos.: 01, 03, 04,14, 20, 23, 26, 28, 32, 34 (For slot/duration kindly see at page No.3 & 4)

For training at MIT: ₹ 3343/- (Five days programme)

For OJT: ₹ 3343/- plus to & fro travel, board & lodging of trainers/faculty as per rules.

The training charges specified with particular programme are on 'per participant per programme' basis include service tax @ 12.36%

(It covers tuition fee, course material, board and lodging during the training programme and local transport for field visits. Charges are subject to change without prior notice. Charges effective at the time of training would be applicable)

Demand draft or at par cheque towards training charges should be drawn in favour of "National Dairy Development Board" payable at 'Anand', and sent with the participants. Clearance charges, if any would be recovered from client for out station cheque/DD.

Nomination/s, complete with name, designation and other relevant details of the participant/s, **should be sent at least 30 days prior** to the date of commencement of the said programme on letterhead of client.

Intimation for cancellation of a nomination should be sent at least 8 days prior to the date of commencement of the said programme.

To enable us to provide effective service, please ensure that candidates are deputed for the training programmes only after receiving a prior confirmation from MIT.

The candidates sponsored for the training programme/s should have basic experience and preferably possess relevant or higher qualifications in the related field.



Food for every taste



Cream separator demonstration



Valedictory session



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