

Title of the course	Short Course in Dairy Farm Management
Offering Department	Directorate of Livestock Farms
Duration	03 Months (April-June)
Syllabus	<p>Theory: Breeds of cattle and buffaloes: Indigenous, exotic and crossbred animals. Breed characteristics, production potential and adaptation to agro-climatic conditions. Selection and culling criteria based on production and reproductive traits. Dairy Housing: Site selection, layout planning, orientation, drainage and types of housing systems: loose housing, conventional barns and zero-grazing systems. Feeding: Introduction and classification of feed ingredients. Nutrient requirement of dairy animals: calves, heifers, lactating, dry and pregnant animals. Formulation of balanced rations using locally available feed resources, preparation and distribution of Total Mixed Ration (TMR). Use of feed additives and mineral mixtures. Seasonal fodder planning and round the year fodder availability. Fodder production and conservation: Seasonal fodder crops cultivation, hay and silage making. General management of various categories of animals (Calves, heifers, lactating cows, etc.) including animal identification, disinfection of naval cord, disbudding etc. Record keeping at dairy farm. Milking: Types of milking, milking equipment handling, cleaning and sterilization protocols. Storage and transportation of milk to maintain its quality. Health and reproduction: Vaccination schedule and deworming practices in calves, heifers, and adult dairy animals. Overview of common diseases in dairy cattle. Biosecurity of dairy farm. Detection of heat, Artificial insemination, Periparturient management. Waste management practices including dung disposal, urine drainage and control of foul odour. Biogas plant structure and usage. Use of automation and mechanization in farm infrastructure.</p> <p>Practical: Visit to organized dairy farms to study housing infrastructure. Measurement of floor space, feeding alley, gutter and manger dimensions in existing sheds. Preparation of standard layout plans for different dairy herd sizes. Demonstration of structural components for special animal units such as calf pens, bull sheds and isolation units. Animal handling techniques for different categories of animals (calves, lactating cows etc.). Routine farm activities such as milking times, feeding schedules, health checks and records of dairy farm activities. Hands on training of hand milking and machine milking including all standard procedures. Visit to a feed mill for demonstration of feed processing equipment. Demonstration of hay and silage making. Routine observation of dairy herd for signs of illness and abnormalities. Preparation and maintenance of herd health records including vaccination, deworming etc. Cleanliness and sanitation of animal sheds and farm equipment as part of biosecurity. Detection of estrus in dairy animals through behavioral signs and use of heat detection aids. Semen handling and artificial insemination techniques in dairy animals (Demonstration)</p>