

PART- (F) SENIOR MILK INSPECTOR

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Unit 1: Introduction to Animal Husbandry

History and scope of livestock. Development programs for livestock production. Dairy revolution. Operation Flood. NDDB'. Livestock and milk production statistics. Breeds of different livestock animals (cattle, buffalo, goat, sheep, poultry and pig) and their characteristics. Common terms used in animal husbandry and dairying. Different research stations related to livestock.

Unit 2: Anatomy/ Physiology/ Breeding

Animal tissue systems. Morphology, anatomy and physiology of various systems of ruminant and non-ruminant livestock species (digestive, respiratory, circulatory, excretory and reproductive system). Digestion, absorption and metabolism of nutrients (Carbohydrate, protein and fat). Basic concepts of quantitative and qualitative genetics. Mendel's law of inheritance. Sex-linked and sex-influenced heredity. Mutation. System of mating. Selection; its methods and basis. Concepts of heritability and repeatability. Sterility: its types and causes.

Unit 3: Introduction to Dairy

Milk, its composition. Lactation physiology. Structure of udder. Milk secretion. Let-down of milk. Formation of colostrum. Milk fat. Milk protein, Agalactia. Physio-chemical properties of milk and milk products. Microbiology of milk. Quality test for milk and milk products. Factors affecting composition of milk. nutritive value of milk and its products. organization of dairy. manufacturing of indigenous milk products. Standards of dairy and dairy by products. Processing of milk and its distribution. Milk cooperatives. Adulteration of milk and milk products. Judging and grading of milk. Quality control management. Cleaning and sanitization of dairy equipment. Public health aspects of milk production.

Unit 4: Feeds & Feeding

Composition of plants and animals. Principles of feeding of various classes of livestock and poultry. Nutrients and their functions in animal body. Classification of feeds and fodder. Dry roughages. Green fodder. Concentrate ingredients. Feed supplements. Additives and implants. Non-conventional feed resources. Agro-industrial by-products. Conservation of fodder. Cultivation practices of different fodder and forage crops. Pasture management. Nutrient composition of different feeds and fodders. Principles of rationing and computation of ration. Nutrient requirement of growth, maintenance, reproduction, production and work production. Azolla production. Feeding standards. Feed processing. Utilization of non-protein nitrogenous (NPN) compounds in ruminants.

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Unit 5: Care and Management Practices

Housing and space requirement for dairy animals. Care and management of different livestock species. Identification methods (tagging, branding, ear notching etc.) of farm animals. Castration. Dehorning. Grooming of farm animals. Handling. Restraining and casting of animals. Judging and culling criteria. Determination of age by dentition. Body weight determination of animals. Detection of heat and pregnancy. Maintenance of different types of records of dairy farm. Artificial Insemination (AI) and its application. Milking methods. Principles of clean milk production. Factors affecting quality and quantity of milk production. Disposal of animal waste under urban and rural conditions. Hygiene and sanitation on animal farm.

Unit 6: Health Management

Clinical examination of sick animals. Symptoms of disease. Etiology. Treatment. Prevention and control of major diseases (Bacterial, viral, protozoan, fungal, parasitic). Metabolic and non-specific diseases of livestock: their prevention and cure. Principles of immunization, vaccination and other health management practices. Animal quarantine and isolation. Common medicines, drugs used as tranquilizer. First aid management. Animal diseases transmissible to men through livestock products. Veterinary biological products and their uses.

Notes: Current general knowledge of scientific advancements in all the above units is deemed to have been included.

Rejalis

Prasad

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