

द्वितीय पत्र: समूह सम्बन्धी

पूर्णाङ्क: १००

1. INTRODUCTION
 - 1.1 Relation of livestock with agriculture, forestry and environment
 - 1.2 Statistics on livestock and livestock products
 - 1.3 Present status of livestock research and development
 - 1.4 Livestock credit and insurance
 - 1.5 Province no.2, Live Stock Development infrastructure and statistics.
2. ANIMAL NUTRITION
 - 2.1 Feeds and feeding standards for each livestock and poultry species
 - 2.2 Nutritional contents of different species of pasture, fodder, fodder trees including indigenous species, agricultural and industrial by-products
 - 2.3 Different methods of nutritional analysis of livestock feeds and fodder
 - 2.4 Computation of ration for different livestock and poultry species
 - 2.5 Minerals, vitamins and trace elements requirement for different species of livestock and poultry - their sources and deficiency syndromes
 - 2.6 Utilization of crop and industrial by-products in poultry and livestock
3. PASTURE AND FODDER
 - 3.1 Classification of different types of pasture and fodder species
 - 3.2 Indigenous species of pasture and fodder found in different parts of Nepal
 - 3.3 Different species of pasture, fodder and fodder trees - Cultivation and management practices
 - 3.4 Rangeland management practices in different parts of the country
 - 3.5 Different methods of forage conservation and their nutritive values
 - 3.6 Seed production of different pasture and fodder species
4. LIVESTOCK BREEDS, BREEDING AND REPRODUCTION
 - 4.1 Description (Breed characteristics, habitat, productivity) of different species of exotic and indigenous livestock and poultry
 - 4.2 Sire evaluation for selecting the elite bulls
 - 4.3 Genetic parameters for the selection of livestock and poultry maintained for different purposes
 - 4.4 Breeding principles
 - 4.5 Methods of selection
 - 4.6 Quantitative genetics of livestock and poultry (gene, cell division, chromosome number, genotype, phenotype, breeding values, hybrid vigour, sex linkage, dominance and recessive gene etc.),
 - 4.7 Anatomy of male and female reproductive organs of different species of livestock and poultry
 - 4.8 Different types of reproductive hormones and their functions
 - 4.9 Different Stages of Reproduction and Estrous cycles
 - 4.10 Reproductive disorders and their corrective measures
 - 4.11 Collection, processing, evaluation and storage of warm and frozen semen
 - 4.12 Artificial insemination technique
 - 4.13 Pregnancy diagnosis technique

5. **LIVESTOCK AND POULTRY MANAGEMENT**
 - 5.1 Classification and identification of livestock and poultry
 - 5.2 Housing and space requirement of different livestock and poultry
 - 5.3 Casting technique
 - 5.4 Different types of record maintenance of farm animals and poultry
 - 5.5 Management of different stages of animal (young, pregnant, production, breeding, dry etc)
 - 5.6 Hatchery management
 - 5.7 Commercial poultry breeds
6. **LIVESTOCK EXTENSION**
 - 6.1 Social mobilization, gender integration and group dynamics
 - 6.2 Pocket package program
 - 6.3 Capacity building of farmers and extension staffs
 - 6.4 Participatory approach in planning, implementation and monitoring from grass-root level
 - 6.5 Public-private/NGO/CBOs partnership program
 - 6.6 Different types of communication system
 - 6.7 System learning approach
7. **AGRO-PROCESSING AND MARKETING**
 - 7.1 Physiology of milk secretion and composition of milk and milk products
 - 7.2 Hygienic milk production
 - 7.3 Handling, processing and quality management of milk and milk products
 - 7.4 Manufacture and marketing of different dairy products
 - 7.5 Hygienic meat production
 - 7.6 Handling, processing and quality management of meat and meat products
 - 7.7 Manufacture and marketing of different meat products
 - 7.8. Marketing network of live animal
 - 7.9 Egg, wool, hides and skins, bones etc marketing system

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