



Practical Animal Nutrition for Augmenting Livestock and Poultry Productivity

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*DR. N. K. SUDEEP KUMAR; DR. C. VALLI;
DR. A. NATARAJAN; DR. L.
RADHAKRISHNAN; DR. P.
VASANTHAKUMAR; DR. C.
BANDESWARAN; DR. A.
BHARATHIDHASAN; AND DR. P. R.
NISHA*

COMMONWEALTH OF LEARNING (COL)
BURNABY, BRITISH COLUMBIA, CANADA



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Course Description

This is a vital course focused on the principles and practices of animal nutrition. This program is designed for all stakeholders involved in livestock and poultry farming, with the aim to proliferate the benefits of balanced feeding.

As global livestock rearing continues to evolve, a country like India, despite holding the world's largest livestock population, suffers from lower productivity. The root cause of this predicament is found to be nutritional inadequacies. Notably, feed constitutes 50-80% of livestock production costs. Hence, optimizing feeding with balanced rations and efficient usage of locally available feed resources will significantly enhance the profitability of livestock farming.

Worldwide research has standardized livestock and poultry feeding, but a noticeable gap persists between the scientific advancements in this area and their adoption at the farmer level. This course intends to bridge this gap through a comprehensive capacity building approach.

By participating in our program, farmers and other stakeholders will gain an understanding of the latest technologies for livestock and poultry feeding. In addition to enhancing adoption, it will foster a strong relationship between technology providers and users. The course will cover important aspects such as the selection of quality feed ingredients, feeding management best practices, feed analysis, and detection of adulterants, to ensure high-quality finished feed, thereby promoting increased animal productivity.



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Course Content

- Feed / Fodder resources and their utilization
- Dairy cattle nutrition – a practical approach
- Sheep and goat nutrition – a practical approach
- Poultry Nutrition – a practical approach
- Swine nutrition – a practical approach
- Quality assurance of animal feeds

Course Audience

- Practising veterinarians
- Veterinarians of the State Animal Husbandry Departments, State Veterinary and Agricultural Universities, Krishi Vigyan Kendras and other outreach centres.
- Students pursuing internship/final/pre-final in veterinary sciences and poultry management and post-graduates of animal production subjects
- Any graduate of life sciences interested in Livestock/Poultry feed management
- Progressive livestock/poultry farmers/entrepreneurs/feed manufacturers/feed plant owners and their staff/feed laboratory analysts

Outcomes of this Course

- Optimal utilization of feed and fodder resources including unconventional feed.
- Feed additives and supplements.

- Nutrient specifications and ration formulation.
- Feeding management in the prevention of production diseases.
- Specialised feeding techniques to produce designer meat/
milk/egg.
- Methane emission mitigation strategies through feeding.
- Quality check of feed ingredients and finished feeds by
conventional methods and NIR.

PART I

WEEK I: FODDER RESOURCES AND THEIR UTILIZATION

1 Feed and Fodder



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2 Roughage Sources-Green and Dry Roughage



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PDF: Roughage Sources – Green and Dry Roughage

3 Energy Sources-Conventional and Unconventional Feed Sources



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4 Protein Sources-Conventional and Unconventional Feed Sources



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5 Preparation of Concentrate Feed Hydroponic Fodder Production, Silage Making



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PDF: Preparation of Concentrate Fee, Hydroponic Fodder Production, Silage Making

PART II

WEEK 2: DAIRY CATTLE NUTRITION

I Feeding Management of Calves



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2 Feeding Management of Dairy Cows



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3 Feeding Management in the Prevention



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PDF: Feeding Management in the Prevention of Production Diseases-Part 1

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4 Methane Emission from Ruminants



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PDF: Methane emission from ruminants and its mitigation strategies-Part1

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5 Ration Balancing in Practice



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PDF: Ration Balancing in Practice – Part 1

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PART III

WEEK 3: SHEEP AND GOAT NUTRITION

1 Integrated Pasture Management Systems for Sheep and Goats



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2 Ration Formulation for Sheep and Goats



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3 Feeding Management of Sheep in Various Life Stages



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4 Feeding Management of Goats in Different Life Stages



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PDF: Feeding management of goats in different life stages

5 Specialised Feeding Technique to Produce Designer Meat_Milk



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PDF: Specialised feeding technique to produce designer meat _ milk

PART IV

WEEK 4: POULTRY

NUTRITION – A

PRACTICAL APPROACH

1 Nutrient Specifications and Ration Formulation for Chicken



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2 Feeding Management of Broiler, Layer and Breeder Chicken



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PDF: Feeding management of commercial broiler chicken-Part 2

3 Designer Eggs and Meat through Nutrient Manipulation



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PDF: Designer eggs and meat through nutrient manipulation

4 Feeding Management of Native Chicken, Ducks, Quails and Turkeys



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PDF: Feeding management of native chicken, ducks, quails and turkeys – Part 1

PDF: Feeding management of native chicken, ducks, quails and turkeys – Part 2

5 Feed Additives and Supplements for Poultry



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PDF: Feed additives and supplements for poultry – Part 1

PDF: Feed additives and supplements for poultry – Part 2

PART V

WEEK 5: SWINE

NUTRITION—A PRACTICAL
APPROACH

1 Nutrient Specifications for Swine and Ration Formulation



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2 Feeding Management of Swine in Various Life Stages



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3 Feed Manipulation to Produce Designer Pork



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PDF: Feed manipulation to produce designer pork

4 Prevention and Treatment of Nutritional Disorders in Swine



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PDF: Prevention and treatment of nutritional disorders in swine

5 Feed Additives for Swine



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PDF: Feed additives for swine

PART VI

WEEK 6: QUALITY ASSURANCE OF ANIMAL FEEDS

1 Feed Sampling and Processing for Analysis



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PDF: Quality control and assurance in feed manufacturing for animals_poultry

2 Nutritional Quality Check of Raw Materials and Finished Feeds



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3 Feed Toxins, their Analysis and Interpretation



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4 Feed Analysis Current Concepts and Development



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PDF: Feed analysis, current concepts, and developments

5 NEAR INFRA RED SPECTROSCOPY – A Tool For Quick Feed Analysis



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