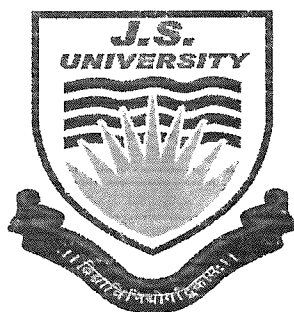


# **J.S. University, Shikohabad**

Established by UP Govt. Act No. 07 of 2015


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## **VALUE ADDED COURSE**

### **Animal Nutrition and Feed Management: Optimizing Feed Efficiency for Better Livestock Performance**

**Faculty of Agricultural Sciences**

	J.S. University, Shikohabad Faculty of Agricultural Sciences	Value Added Course
		AGVAC-25

## **Animal Nutrition and Feed Management:** **Optimizing Feed Efficiency for Better Livestock** **Performance**


### **Learning Objectives:**

This value-added course is designed to provide participants with a comprehensive understanding of animal nutrition and feed management principles and practices to optimize feed efficiency for improved livestock performance. The course will cover topics such as the nutrient requirements of different livestock species, feed ingredients and their nutritional value, feed formulation, feed processing, and feed management strategies for enhancing feed efficiency and livestock performance.

### **Course Outcomes:**

Upon completion of this course, students will be able to:

1. Understand the principles of animal nutrition and the nutrient requirements of different livestock species.
2. Analyze and evaluate different feed ingredients and their nutritional value for formulating balanced diets.
3. Apply feed formulation techniques to meet the nutrient requirements of different stages of animal production.
4. Understand the impact of nutrition on animal health, growth, reproduction, and product quality, and optimize feed management practices for better livestock performance.
5. Learn about the latest advancements in feed technology, including feed additives, enzymes, and processing techniques, and their potential for improving feed efficiency and animal performance.

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**Duration:** 8-10 weeks (depending on the pace of the student)

**Intake:** 60 students

**Course Modules (Syllabus):**

**Module-1**

**Introduction to Animal Nutrition and Feed Management**

- Basics of animal nutrition
- Nutrient requirements of different livestock species
- Feed additives and their roles in animal nutrition
- Factors influencing feed intake and digestion

**Module-2**

**Feed Ingredients and Nutritional Value**

- Types of feed ingredients and their characteristics
- Nutritional value of different feed ingredients
- Evaluating feed quality and safety
- Feed ingredient selection and substitution

**Module-3**

**Feed Formulation and Ration Balancing**

- Principles of feed formulation
- Formulating balanced diets for different livestock species and production stages
- Ration balancing techniques
- Computerized feed formulation tools and software

**Module-4**

**Feed Processing and Storage**

- Feed processing methods and their impact on nutrient availability
- Ensuring feed safety during processing and storage
- Feed mill management and operation
- Storage techniques and best practices



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#### Module-5

#### Feed Management Strategies for Improved Livestock Performance

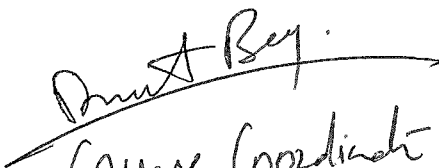
- Feeding practices for enhancing feed efficiency
- Feed management for different production systems (e.g., pasture-based, intensive)
- Nutrient management and waste reduction strategies
- Monitoring and evaluating feed performance


#### Assessment:


- Weekly quizzes and assignments
- Final project on designing and implementing animal nutrition and feed management plan.

#### Reference books:

1. "Animal Nutrition" by Peter McDonald
2. "Feedstuffs in Animal Nutrition" by Jurg W. Blum
3. "Applied Animal Nutrition: Feeds and Feeding" by Peter McDonald

  
Course Coordinator  
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