J.S. University, Shikohabad

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VALUE ADDED COURSE

<u>Dairy Herd Management: Best Practices for</u> <u>Efficient Dairy Farm Operations</u>

Faculty of Agricultural Sciences



J.S. University, Shikohabad Faculty of Agricultural Sciences

Value Added Course

AGVAC-26

<u>Dairy Herd Management: Best Practices for</u> <u>Efficient Dairy Farm Operations</u>

Learning Objectives:

This value-added course on Dairy Herd Management aims to provide practical knowledge and skills to farmers, farm managers, and agricultural professionals involved in dairy farming. The course will cover various best practices for efficient dairy farm operations, including herd health management, nutrition, reproduction, genetics, and overall farm management strategies. Through a combination of lectures, hands-on practical sessions, and case studies, participants will gain a comprehensive understanding of the key principles and strategies to optimize the performance and profitability of their dairy herds.

Course Outcomes:

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

- 1. Understand the principles of efficient dairy herd management and their application in dairy farming operations.
- 2. Implement best practices for herd health management, including disease prevention, vaccination, and cow comfort.
- Formulate balanced rations for different stages of lactation and manage pasture and forage resources.
- 4. Implement reproductive and breeding management strategies to optimize herd fertility and genetic improvement.
- **5.** Apply farm management strategies to enhance the financial performance, labor management, and environmental sustainability of their dairy farms



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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 Dairy Herd Management

- Overview of the dairy industry
- · Importance of efficient herd management in dairy farming
- Understanding the anatomy and physiology of dairy cattle
- Dairy cattle breeds and genetics

Module-2

Herd Health Management

- Principles of dairy herd health management
- Common diseases in dairy cattle and their prevention and control
- Vaccination protocols and biosecurity measures
- Monitoring and managing cow comfort and welfare
- Record keeping and data analysis for herd health management8

Module-3

Dairy Cattle Nutrition

- Understanding dairy cattle nutrition requirements
- Formulating balanced rations for different stages of lactation
- · Feeding strategies for optimal milk production, reproduction, and health
- Managing pasture and forage resources
- · Feed storage, handling, and quality management

Module-4

Reproduction and Breeding Management

- · Reproductive anatomy and physiology of dairy cattle
- Estrus detection and synchronization techniques
- Artificial insemination and pregnancy diagnosis
- Breeding strategies for genetic improvement
- Managing calving and postpartum care



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Module-5

Farm Management Strategies

- Financial and economic considerations in dairy farming
- Business planning and decision-making for dairy operations
- Labor management and team building
- Facilities and equipment management
- Environmental management and sustainability practices

Assessment:

- Weekly quizzes and assignments
- Final project on designing and implementing dairy herd management plan.

Reference books:

- 1. Hand book of Animal Husbandry V.K. Taneja, C. Chakravarty, C.S. Viswanath, Aruna T. Kumar, Indian Council of Agricultural Research, New Delhi.
- 2. Livestock Production and Management N.S.R. Sastry and C.K. Thomas, Kalyani Publishers, Ludhiana, India

(Name of Faculty)

(Name of Faculty)

Director General

Dr. Gane Yada