

Institute for Excellence in Higher Education (IEHE), Bhopal

(Syllabus Template: Theory Paper with Practical)

No. of Credits : Theory 2 + Practical 2 = 4

PART-A:INTRODUCTION				
Program: UG		Class: B.Sc./ B.A.- II	Semester: IV	Session: wef 2022-23
Subject: Dairy Management				
1.	Course Code	V 1- Zoo- DAMT SEC - 484		
2.	Course Title	Dairy Management		
3.	Course Type (Core Course/ Discipline Specific Elective/Generic Elective)	Vocational		
4.	Pre-Requisite (if any)	Open for All		
5.	Course Learning Outcomes(CLO)	After studying this Course the Student will be able to- 1. Gain knowledge about production, planning& management of dairy. 2. Handling and processing of milk, manufacture of the dairy products. 3. Develop technician level human resources for the dairy industry. 4. Upgrade the technical proficiency of workers / technicians working in the dairy and allied sectors. 5. Develop young entrepreneurs for self-employment through dairy technology and associated activities.		
6.	Expected Job Role/ career opportunities	1. Can find opportunities of the government& co-operative schemes regarding the establishment of dairy farm and plants 2. May be appointed as farm manager, dairy manger and dairy product distributor 3. One can also start his own business venture		
7.	Credit Value	4		
PART-B:CONTENT OF THE COURSE				
Total No. of Lectures + Practical (in hours per week): L – 1 Hr/ P-1 Lab Hr.				
Total No. of Lectures/ Practical: L – 30 Hrs./ P-1 Lab Hrs.				
Module	Topics			No. of Hours

Code Details: Gender –[1], Environment & Sustainability –[2], Human-Values –[3], Professional-Ethics –[4], Employability –[5], Entrepreneurship –[6], Skill-Development –[7]

Signature of Members:

(1) *D. H. Wani*
21/6/22

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M. D. Singh

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(4) *Dr. Pankaja Shukla*
21/6/22

(9)

(5) *P. S. Singh*
(10)

P. S. Singh

21.6.2022

Date of BOS: 21/06/2022

Signature of the Chairman (BOS):

Name: Dr. Pankaja Shukla

I. Management of Dairy Farm:

1.1 Introduction

1.2 Managing Dairy Facilities- Selection of site, Housing system, Layout and design of different building for animals

1.3 Dairy Equipment and utilities

1.4 Cooling, Cleaning and Sanitization Management

2. Management of Dairy Animals:

2.1 Dairy Breeds- indigenous and Exotic Breeds

2.2 Breeding Dairy Cattle (Elementary Inea)

2.3 Dairy Animal Comfort Management

2.4 Feeding Management

2.5 Pest and Disease of Dairy Cattle

2.6 The Lactation Cycle

(Cross cutting issues- 2,3,4,5,6,7)

Keywords: Dairy facilities, building for animals, equipments, cleaning of dairy farm, breeds, comfort, feeding, pest, diseases

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II

Dairy Business planning and Milk Losses

1. Milking management:

1.1 Composition of milk, major and minor constituents of milk, physio-chemical, microbial and nutritional properties of milk

1.2 preservation of raw milk

1.3 Milk Standard and Legislation

1.4 Clean Milk Production

1.5 Milk processing and packaging

1.6 Storage and distribution of processed milk

1.7 Byproducts of milk

1.8 Factors affecting quality and quantity of milk production

1.9 Marketing and economical aspects

2. Milk Losses

2.1 Losses during various stage of processing

2.2 factors responsible for milk losses

2.3 Controlling of milk solid losses- Modernization of process, Regular monitoring

(Cross cutting issues- 2,3,4,5,6,7)

Keywords: Milk composition, preservation, processing packaging,, quality, quantity, losses, controlling

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Signature of Members:

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Managing Productivity

- 1.1 Introduction, conception about productivity
- 1.2 factors affecting productivity
- 1.3 Optimization of resources
- 1.4 Designing of milk procurement, marketing routes and sizing of process equipment

2. Dairy Plant Design and Human Resources:

- 2.1 introduction Classification of dairy plant
- 2.2 Site location, premises and rooms
- 2.3 Estimation of capacity
- 2.4 Design of facilities, plant layout
- 2.5 Selection of plant equipment
- 2.6 Cleaning and Sanitization
- 2.7 Human Resource planning: Functional requirement of plant, Skill enhancement, Effective Communication and Effective coordination.

(Cross cutting issues- 2,3,4,5,6,7)

Keywords: Productivity, process equipments, dairy plant location, plant layout

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PART-C:LEARNING RESOURCES

Textbooks, Reference Books, Other Resources

Suggested Readings:

1. Arora, S.P. 1997, feeding of Dairy Cattle and Buffaloes, Kalyani publications
2. Tomar, B.S. Singh, Neera 2007, "A Tex book of Applied Zoology" EMKAY publication, Delhi
3. Shukla, G.S. and Upadhyay, V.B. 2015 "Economic Zoology" Rastogy publication, Meerut
4. Katre, B.C. and Prasad, Sitaram 2001, "Quality Management Concepts for Improved Performance of Dairy Industry", Indian Food Industry 20(4): 53-56
5. Aquinas PG 1996, "Principles of Management", Anmol Publication PVT. Ltd. Delhi
6. Moore, James M. 1962, Plant layout and Design, macmillan Public. Co. Inc, New York
7. Chander L. 2004 "Tex book of Dairy plant Layout & Design", Dir. Of information & Publication of Agriculture, ICAR, New Delhi

Suggestive digital platform web links

1. <https://bie.tg.nic.in/Pdf/DairyAnimalManagementTheory.pdf>
2. <https://www.slideshare.net/beth/dairy-management>
3. <https://www.slideshare.net/SwatiB4/dairy-farm-cattle-management>
4. <https://www.powershow.com/view1/b47ac->
5. <https://www.youtube.com/watch?v=xoFgeXHeRSU>
6. <https://www.youtube.com/watch?v=sf-7R0RID0o>

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