ST. JOSEPH’S COLLEGE FOR WOMEN (AUTONOMOUS) VISAKHAPATNAM

II SEMESTER **SKILL DEVELOPMENT COURSE** Time:2Hrs/week

DT 2001(2)  **DAIRY TECHNOLOGY** Marks:50

(w.e.f: 2020-2021-‘20AH’) **SYLLABUS**

**OBJECTIVES: To enable the students to**

1. Acquire knowledge about the care and management of cattle

2. Develop an overview on establishing or develop a Dairy Industry.

3. Relate and apply the knowledge in designing animal barns with optimal conditions.

4. Classify and explain the systems of Inbreeding and crossbreeding.

**LEARNING OUTCOMES**:

After successful completion of the course, students will be able to;

1. Understand the pre-requisites for starting a Dairy farm

2. Recognize different breeds of Cows & buffaloes following safety precautions.

3. Prepare and give recommended feed and water for livestock

4. Maintain health of livestock along with productivity

5. Vaccination of cattle, nutrients requirements

6. Entrepreneurship i.e., Effectively market dairy products

7. Ensure safe and clean dairy farm and Standard safety measures to be taken in establishing am industry

8. Efficiently start and manage to establish or develop a Dairy Industry

**SECTION – I: (Introduction and Establishment of a Dairy Farm): 05 Hrs**

1.1 Dairy development in India – Dairy Cooperatives (NDRI, NDDB, TCMPF)(1hr)

1.2 Constraintsof Present Dairy Farmingand Future Scope of Dairy Farmer.(1 hr)

1.3 Selection of site for dairy farm; Systems of housing – Loose housing system, Conventional Dairy Farm; Records to be maintained in a dairy farm. (2 hrs)

**SECTION – II: (Livestock Identification and Management): 13 Hrs**

2.1 Breeds of Dairy Cattle and Buffaloes – Identification of Indian cattle and buffalo breeds and Exotic breeds; Methods of selection of Dairy animals. (5 hrs)

2.2 Systems of inbreeding and crossbreeding. (2 hrs)

2.3 Weaning of calf, Castration, Dehorning, Deworming and Vaccination programme (3 hrs)

2.4 Care and management of calf, heifer, milk animal, dry and pregnant animal, bulls and bullocks. (3 hrs)

**SECTION – III: (Feed Management, Dairy Management, Cleaning and Sanitation):**  **8 Hrs**

3.1 Basic Principles of Feed, Important Feed Ingredients, Feed formulation and Feed Mixing(2 hrs)

3.2 Operation Flood –Definition of Milk and Nutritive value of milk and ICMR recommendation of nutrients –Per Capita Milk production and availability in India and Andhra Pradesh -Methods of Collection and Storage of Milk–Labelling and Storage of milk products (4 hrs)

3.3 Cleaning and sanitation of dairy farm – Safety precautions to prevent accidents in an industry.

(2 hrs)

**CO-CURRICULAR ACTIVITIES SUGGESTED: (**4 hrs)

1. Group discussion&SWOT analysis

2. Visit to a Dairy Farm

3. Visit to Milk Cooperative Societies

4. Visit to Feed Milling Plants

5. Market Study and Identification of Government Schemes, Insurance and Bank Loans in relation to dairy farming

**REFERENCE BOOKS**:

1. Dairy Science: Petersen (W.E.) Publisher – Lippincott & Company

2. Principles and practices of Dairy Farm –Jagdish Prasad

3. Text book of Animal Husbandry - G C Benarjee

4. Hand book of Animal Husbandry - ICAR Edition

5. Outlines of Dairy Technology – Sukumar (De) – Oxford University press

6. Indian Dairy Products – Rangappa (K.S.) & Acharya (KT) – Asia Publishing House.

7. The technology of milk Proceesing – Ananthakrishnan, C.P., Khan, A.Q. and Padmanabhan, P.N. – Shri Lakshmi Publications.

8. Dairy India 2007, Sixth edititon

9. Economics of Milk Production – Bharati Pratima Acharya Publishers.

10. http://www.asci-india.com/BooksPDF/Dairy%20Farmer%20or%20Entrepreneur.pdf

11. https://labour.gov.in/industrial-safety-health

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