

# SRI A.S.N.M. GOVERNMENT COLLEGE (A), PALAKOLLU

(Accredited with NAAC “B” Grade with 2.61 CGPA points)

## DEPARTMENT OF ZOOLOGY

Skill Development Course: Dairy Technology

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

### SYLLABUS:

#### 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 Constraints of Present Dairy Farming and 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. (3 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 Processing – Ananthakrishnan, C.P., Khan, A.Q. and Padmanabhan, P.N. – Shri Lakshmi Publications.
8. Dairy India 2007, Sixth edition
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>