SRI VENKATES WARA UNIVERSITY

SKILL DEVELOPMENT COURSE

SCIENCE STREAM

FIRST YEAR - SECOND SEMESTER

(UNDER CBCS W.E.F. 2020-21)

DAIRY TECHNOLOGY

Total 30 hrs (02h/wk), 02 Credits & Max 50 Marks

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

SYLLABUS:

Section I (Introduction and Establishment of a Dairy Farm): 05 Hrs

Dairy development in India – Dairy Cooperatives (NDRI, NDDB, TCMPF)(1hr)
Constraintsof Present Dairy Farmingand Future Scope of Dairy Farmer.(1 hr)
Selection of site for dairy farm; Systems of housing – Loose housing system, Conventional Dairy Farm; Records to be maintained in a dairy farm. (2hrs)

Section II (Livestock Identification and Management): 13 Hrs

Breeds of Dairy Cattle and Buffaloes – Identification of Indian cattle and buffalo breeds and Exotic breeds; Methods of selection of Dairy animals. (5hrs)
Systems of inbreeding and crossbreeding. (2 hrs)
Weaning of calf, Castration, Dehorning, Deworming and Vaccination programme (3hrs)
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

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

MODEL QUESTION PAPER & PATTERN

Max. Marks: 50 **Time: 1 1/2 hrs (90 Minutes)**

SECTION A (Total: 4x5=20 Marks)

(Answer any **four questions**. Each answer carries **5 marks**
(At least 1 question should be given from each Unit)

1. Conventional Dairy Farm
2. Animal Inbreeding
3. Sanitation of Dairy Farm
4. Dairy development in India
5. Feed Mixing
6. Deworming
7. Milk Storage Methods
8. Identification of characters of any Two Dairy cattle

SECTION B (Total: 3x10 = 30 Marks)

(Answer any **three questions**. Each answer carries **10 marks**
(At least 1 question should be given from each Unit)

1. Write an essay on Dairy development in India, its current position and future scenario.
2. List our different methods involved in selection of dairy animals and discuss briefly.
3. Give an account of feed ingredients and feed management required for dairy animals.
4. Explain different methods of collection of milk.
5. Explain two methods of systems of housing of dairy animals.

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Note: Please read the following in addition to the Guidelines sent.

1. *In Unit-2 and Unit-3, Sub-titles highlighted in Yellow colour are Skills. Sub-titles not highlighted are of Theoretical base.*
2. *Skills, though separately shown, shall also have 'content' to be learnt and written in the examination by the students.*
3. *The field (hands on) skills are learnt through the Co-curricular Activities.*
4. *One or two books referred shall be related to 'learning of skills'*
5. *Topics and syllabus may be prepared keeping all (BA/BSc/BCom) urban as well as rural students in view.*