Livestock are natural factories to convert roughage (grasses, shrubs, etc) into quality-food i.e. milk and meat. Livestock also provide raw material for industries and create markets and capital. For a large population of rural household in rain-fed agricultural production system, livestock provide security against crop-failure. Pakistan has a large livestock population, well adapted to the local conditions, and has some of the best tropical dairy breeds. A comprehensive knowledge about livestock and diary management is required to cater the need of the country.

1. Educational Objectives

- 1. To create awareness about existing scenario of dairy industry problems and remedies.
- 2. To produce manpower competent in profitable dairying and aware about modern technologies to boost milk production at national level.
- 3. To review the most recent literature regarding different aspects of livestock production over the globe.
- 4. To enable the students to plan various research activities/projects in the light of the status of the existing knowledge.

2. Course Outcomes

- 1. The students will be able to understand the basic dairy industry problems and how to handle them.
- 2. It will create awareness among students about modern technologies in milk production.
- 3. Understanding about different aspects of livestock production and management.
- 4. The students will be able to work alone or as a team member for better livestock management and dairy production.

3. Course Contents

Dairy production and food security; Dairying scenario in developed and developing countries; Establishing a modern dairy enterprise; World famous dairy breeds; Management of exotic/crossbred cows; Management during winter and summer; Production performance; Raising replacements; Feeding and breeding

management; Farm records; Improving reproductive efficiency; Housing requirements and systems; Hygienic milk production; Mastitis control program; Farm sanitation, manure handling and slurry management: Common ailments in dairy animals, their prevention and control. Research methods in livestock management; Use of computers for retrieval of relevant information; Recent advances in approach towards development and research in livestock production, new innovations related to feeding and management of farm animals;

4. Lab Work

N/A

5. Recommended Books

- Swain, D.L. 2007. Redesigning Animal Agriculture: The Challenge of the 21stCentury. CAB International, UK.
- Younie, D. and J.M. Wilkinson. 2001. Organic Livestock Farming. Chalcombe Publications, Mountwood House, Biddenfield Lanee Shedfield, Southampton Hampshire, UK.
- 3. Bilal, M.Q. and A. Ahmad. 2004. Dairy Hygiene and Disease Prevention. Usman and Bilal Printers Faisalabad, Pakistan.
- 4. Ensminger, M.E. 1993. Dairy Cattle Science. The Interstate Printers, Danville, IL, USA.
- 5. Khan, B.B. (ed.). 2008. Health and Husbandry of Dairy Animals. Pak TM Printers, Faisalabad, Pakistan.
- 6. Phillips, C.J.C. 1995. Progress in Dairy Science. CAB International, UK.