

Manual of Training Programmes for Foreign Nationals

Central Sheep and Wool Research Institute, Avikanagar
Via: Jaipur, Rajasthan

Training Arena- Animal Health Management

*Animals also need warm attention
Their health is a matter of concern
Trainers can teach this domain
With medicines, vaccines and also fun*

Fun and happiness is the feeling we have while being in the company of animals. When our pets fall sick the sentiments of taking care of them makes us visit the veterinary doctors and we unknowingly share their pain. An injured or a sick animal on the road also arouses similar emotions within us. Further, even if we do not have these desires and animals look good only as a part of our meals then also animal health is an issue which we humans must pay attention to for the sake of our own health and safety. Taking into consideration all these factors, ICAR's Institutes have formulated training programmes which lay down the principles and practices of keeping the animals disease free and healthy.

Listed below are the topics on which various Training Modules are available along with complete details- course contents, duration and fees.

Training Programme Name: Assessment of Nutrient Availability and Utilization in Grazing Sheep

Background:

Traditional sheep farming is mostly extensive type and the shift will be mostly towards grazing plus post-grazing supplementation of home-made concentrates and available roughages. In this scenario, intake and availability of nutrients from grazing area and its utilization for different production purposes needs to be ascertained for strategic intervention if any to support optimal production. In free ranging, depending on the food availability, the animals often travel long distances. Thus, animals need extra energy for maintenance that it spends on travel and to cope with open environment, which may increase several fold over values assessed for restrained animals. Further, micro-nutrient availability also varies with the soil and pasture types at different geographical regions and hence critical supplementation of deficit minerals holds promise to augment production. A great deal of research work at

CSWRI, Avikanagar has elucidated all these issues and came out with various protocols, strategies and management which will give an insight to research and development workers, university teachers and progressive farmers for dealing with nutritional adequacy for optimizing sheep production.

Faculty: Scientists and experts on the subject are available in the Institute. In addition, guest speakers/experts from nearby Research Organizations and SAUs are also available for organizing the training programme.

Course Director	:	Director, CSWRI, Avikanagar
No. of trainee per course	:	10-15
Duration	:	2 weeks
Course fee per trainee	:	US \$ 1000
Accommodation	:	Guest Houses
Eligibility	:	Progressive farmers, Paravets, Farm Managers and related persons, research and development workers/students and university teachers

Course contents:

Theoretical background on different systems of sheep rearing practice and feed resource availability; assessing nutrient requirement of sheep at different physiological stages, practical training on assessing nutrient availability from ranges; calculating deficit and strategic supplementation based on seasonal availability and state of production; assessing micro-nutrient availability and supplementation; explanatory and participatory training on preparation of concentrate and mineral mixture supplements/pellets, laboratory protocol for assessing nutrient content of feeds and fodder; atomic absorption spectrophotometry and flame photometry application on mineral assay; country report presentation, evaluation and group discussions.

Training Programme Name: Sheep Health Management Technologies for Veterinarians

Background:

Sheep diseases are an ever present constraint on the production efficiency of animal and have obvious and profound effects or remain sub-clinical without obvious effect. The incidence of diseases has negative impact on production of the sheep. According to field observation about 20% of production losses are due to diseases and death. The losses will be more if cases of abortion and still birth and reduction in milk, meat and fibre yield and expenses incurred on treatment during the disease period are included. Helminthic infections are considered as an important cause of reduced productivity in sheep. The control of gastrointestinal nematodes (GIN) in sheep is necessary to prevent ill health and improve productivity. The usual practice of worm control is not based on sound epidemiological knowledge which results in failure of worm control programme, emergence of anthelmintic resistance strains

of parasites and an increase in cost of worm control. Following successful implementation of single anthelmintic drench / annum (based on strong epidemiological observations), a mechanism is further developed to increase quantum of refugia and decrease the selection pressure for anthelmintic resistance through harvesting the benefits of over-dispersion in faecal egg count, targeted selective technique is developed for management of haemonchosis in sheep.

Faculty: Scientists and experts on the subject are available in the Institute. In addition guest speakers / experts from nearby Research Organizations and SAUs are also available for organizing the training programme.

Course Director	:	Director, CSWRI, Avikanagar
Duration	:	7 days
Course fee	:	1.20 lakh US \$ 2000
No. of trainees/ course	:	15
Accommodation	:	CSWRI, Guest house and PG Hostel, Avikanagar
Eligibility	:	Veterinary Officers, Scientists, University Teachers, Paravets

Course Contents:

Theory: Diagnosis of bacterial and viral diseases, Management of digestive and hepatic system diseases, Epidemiology of gastrointestinal nematodes of small ruminants, Management of anthelmintic resistance in nematode parasites, Necropsy as a tool for disease diagnosis, Sustainable worm management in small ruminants, Alternative control methods for GIN, Metabolic and non-specific diseases and their management, Formulation of planned flock health programme.

Practical: General necropsy procedures, Collection, preservation and dispatch of samples for diagnosis Microbial diseases and their diagnosis, Diagnosis of parasitic diseases and detection of anthelmintic resistance, DDIS applications for disease data management, Immunodiffusion tests for disease diagnosis, ELISA and PCR techniques in disease diagnosis, Forecasting model for ovine haemonchosis, TST approach for worm management, Antibiotic sensitivity assay, Evaluation of hepatic functions.