



CIRG

Central Institute for Research on Goats

Makhdoom

Courses

1. Use of Molecular Techniques in rumen microbiology.
2. Improved nutritional approach for designing and quality evaluation of functional goat meat products
3. Goat Farm Management
4. Intensive and Semi-intensive sheep and goat rearing practices
5. Semen freezing, AI and goat reproduction
6. Application of Reproductive biotechniques for improvement of goat production
7. Molecular Diagnosis of goat diseases

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The Central Institute for Research on Goats was established on 12 July 1979 and is located at a distance of about 2.5 Kms from Farah town between Agra and Mathura cities on National Highway No. 2.

The Institute has four Research Divisions namely, Genetics and Breeding, Physiology, Reproduction & Shelter Management, Nutrition Application of Reproductive Techniques for improvement of goat production., Feed Resource and Products Technology & Animal Health and two Sections namely, Extension Education & Socio-Economics and Education & Research Coordination. Institute has also well developed Agricultural Research Information System (ARIS) equipped with modern hardware and Software. The Institute has developed elite flocks of Jamunapari and Barbari goats and Muzaffarnagri Sheep and is continuing to conduct need based research and development programmes, demonstrations, technology transfer on goat production. Trainings for commercial goat farming and specialized training programmes in goat production on various aspects are undertaken in routine as per schedule.

1. Use of molecular techniques in rumen microbiology

Training Programme

The training programme is designed to strengthen the knowledge and concept of rumen microbes, its ecology, cultivation, identification and fiber digestibility ability. The training programme will improve the practical skills of participants for study of rumen microbes and its effect on productivity of ruminants.

Faculty

Well qualified and trained 10 scientists of the institute and invited speakers from other ICAR institutes and SAUs will constitute the faculty.

Course Director : Dr U B Chaudhary

Duration : 4 weeks (1-28 December 2009)

Course fee/trainee: US \$ 2,000 per trainee (excluding boarding and lodging)

No. of trainees per course : 10

Accommodation : To be arranged at Institute's Guest House (on twin sharing basis)

Eligibility : PG in animal nutrition/ Biotechnology with knowledge of English

Course Contents

- Use of different equipments for culture of anaerobic bacteria and fungi
- Different methods for preparation of anaerobic media and application of different cultural techniques for cultivation of rumen microbes
- Use of anaerobic chamber for culture of strict anaerobes
- Morphological and biochemical techniques for identification of rumen bacteria and fungi
- Extraction of DNA from rumen bacteria and fungi using different protocols
- Use of primer for PCR and sequencing of PCR products for identification of anaerobic bacteria and fungi
- RFLP for identification of rumen bacteria and fungi
- Estimation of fibrolytic activities of rumen microbes

2. Improved nutritional approach for designing and quality evaluation of functional goat meat products

Training Programme

The training programme is designed to strengthen the knowledge and concept of functional components in food system on human health and its practical application for designing and development of meat based functional foods. This course will improve the practical skill of the participants in designing and evaluation of functional meat products.

Faculty

Well qualified and trained 15 scientists of the centre and invited speakers from the other ICAR and SAUs will constitute the faculty.

Course Director : Dr Arun Kumar Das

Duration : 2 weeks (9-21 February 2009)

Course fee/trainee: US \$ 1,200 per trainee

No. of trainees per course : 8-10

Accommodation : To be arranged at Institute's Guest House (on twin sharing basis)

Eligibility : Master's degree in Livestock Products Technology/Meat Science/Food Science/Muscle Food Technology along with working experience in meat foods or muscle foods

Course Contents

- Present concept and knowledge on functional foods
- Meat and meat products on human health
- Functional food ingredients and its uses
- Functional foods and human health
- Nutritional approach for designing functional meat products
- Functional modification of meat and meat products
- Dietary fibre based functional meat products
- Modification in fatty acids, cholesterol and sodium chloride in meat and meat products
- Herbal natural extract with anti-oxidant and antimicrobial properties based functional meat products
- Vegetable proteins based functional meat products
- Design and development of nuts based functional goat meat products

3. Goat Farm Management

Training Programme

The course will provide lectures and on-bench practical training to teachers/technical workers/students in various aspects of reproductive technologies and their application in goat improvement programme.

Faculty

We have sufficient expert and specialist in the area of goat and sheep management, shelter management, environmental specialist, physiology, reproduction, nutrition, genetics, breeding and health management.

Course Director : Dr R P Misra

Duration : 28 days (03-30 March, 2009)

Course fee : US \$ 2,000 per trainee
(excluding boarding & lodging)

No. of trainees per course : 10

Accommodation : To be arranged at Institute's Guest House (on twin sharing basis)

Eligibility : Graduate/professionals in science with knowledge of written and spoken English.

Course Contents

- Selection of site, selection of goat breed for specific region, housing of goat, feeding and watering appliances, feed formulation and feeding, pasture and agro-forestry management, selection of animals for purchase with different ratio of sex and age group, selection of breeding stock, managing the breeding flock, care of advanced pregnant goats, care of new born kids, post weaning care of kids, A.I. in goats, pregnancy diagnosis, care and management of sick animals, segregation of diseased animal. Prophylactic measures against infectious goat diseases, deworming, dipping, treatment of animals, economic of goat production, banking support for commercial goat farm.

4. Intensive and semi-intensive sheep and goat rearing practices

Training Programme

The course will provide lectures and on-bench practical training to teachers/technical workers/students in various aspects of reproductive technologies and their application in goat improvement programme.

Faculty

We have sufficient expert and specialist in the area of sheep and goat management, shelter management, environmental specialist, physiology, reproduction, nutrition, genetics, breeding and health management.

Course Director : Dr R P Misra

Duration : 30 days (1-30 April 2009)

Course fee : US \$ 2,000 per trainee
(excluding of boarding & lodging)

No. of trainees per course : 10

Accommodation : To be arranged at Institute's Guest House (on twin sharing basis)

Eligibility : Graduate/professionals in science with knowledge of written and spoken English

Course Contents

- Environment and its interaction with goat and sheep, selection of site, selection of goat and sheep breed for specific region, housing of goat and sheep, feeding and watering appliances, feed formulation and feeding, pasture and agro-forestry management, selection of animals for purchase with different ratio of sex and age group, selection of breeding stock, managing the breeding flock, care of advanced pregnant goats and sheep, care of new born kids, post weaning care of kids, A.I. in goats, pregnancy diagnosis, care and management of sick animals, segregation of diseased animal. Prophylactic measures against infectious goat and sheep diseases, deworming, dipping, treatment of animals, economic of goat and sheep production, banking support for commercial goat farm.

5. Semen freezing, AI and goat reproduction

Training Programme

The course will provide lectures and on-bench practical training to teachers/technical workers/students in various aspects of reproductive technologies and their application in goat improvement programme.

Faculty

We have sufficient experts and specialist in the area of goat and sheep physiology, reproduction, artificial insemination, goat semen freezing, breeding and embryo transfer.

Course Director	: Dr S K Jindal
Duration	: 14 days (12-25 May, 2009)
Course fee	: US \$ 1,000 per trainee (excluding boarding & lodging)
No. of trainees per course	: 10
Accommodation	: To be arranged at Institute's Guest House (on twin sharing basis)
Eligibility	: Graduate/professionals in science with knowledge of written and spoken English.

Course Contents

- Advantage of A.I. in goats, selection of breeding bucks, collection and evaluation of semen quality, preparation of dilutes, dilution of semen, sterilization of equipments, use of additive in semen. Freezing of semen, storage of semen, A.I. technique using frozen and liquid semen, factors affecting semen quality, disease transmission through A.I. bacteriological evaluation of semen.

6. Application of reproductive biotechniques for improvement of goat production

Training Programme

The course will provide lectures and on-bench practical training to teachers/technical workers/students in various aspects of reproductive technologies and their application in goat improvement programme.

Faculty

We have sufficient expert and specialist in the area of sheep and goat reproduction, physiology, artificial insemination, goat semen freezing, breeding and embryo transfer.

Course Director	: Dr S D Kharche
Duration	: 30 days (September 21-October 20, 2009)
Course fee	: US \$ 2,000 per trainee (excluding of boarding & lodging)
No. of trainees per course	: 10
Accommodation	: To be arranged at Institute's Guest House (on twin sharing basis)
Eligibility	: Graduate in Veterinary Science/ Biotechnology/Life Science with knowledge of written and spoken English

Course Contents

- Design and layout of artificial insemination, embryo transfer and tissue/embryo culture laboratory, basic equipment and reagent required, general laboratory rules and procedure.
- Sterilization and preparation of glassware, plastic ware, rubber ware and media required for various procedures.
- Reproductive behaviour and physiology of Buck and Doe.
- Synchronization, Superovulation, embryo collection and embryo transfer.
- In-vitro maturation, fertilization and embryo culture
- Lymphocyte culture, granulose cell monolayer culture, oviductal epithelial cell culture and culture of gametes and embryos.
- Micromanipulation of gametes and embryos for various biotechnological experiments
- Semen collection, evaluation, dilution and freezing of semen and embryo.
- Laparoscopic artificial insemination and embryo transfer
- Ultrasonography
- Gene based techniques for improvement of goats

7. Molecular diagnosis of goat diseases

Training Programme

The course will provide hands on training for various molecular techniques and their application for the control of infectious diseases of goats.

- Course Director** : Dr V S Vihan
- Duration** : 3 weeks (9-30 November 2009)
- Course fee** : US \$ 2,000 per trainee
(excluding boarding & lodging)
- No. of trainees per course** : 20
- Accommodation** : To be arranged at Institute's Guest House (on twin sharing basis)
- Eligibility** : Graduate in Veterinary Science with knowledge of written and spoken English.

Course Contents

- Nucleic acid based approaches for identifying pathogens and diagnosing infectious disease.
- Probing molecular structure in diseased tissues and biological fluids
- Detection of specific genes of microbial DNA/RNA from clinical specimen by PCR
- PCR based amplification and detection of organisms
- DNA sequencing
- Techniques of collection of different types of specimens for molecular diagnosis.