Minitube offers a variety of seminars and training opportunities in ovine/caprine reproduction techniques. These are also applicable for deer. The seminars begin with a get-together meeting to discuss each participant’s experience and practical expertise. A comprehensive theory presentation is followed by hands-on lessons during which the trainees repeatedly perform all steps under the supervision of the trainer. Minitube Training sessions always offer many useful troubleshooting measures. The participants benefit greatly from a “learning by doing” approach.

### Seminar Contents

#### Laparoscopic artificial insemination (3-5 days)

**Theory:**
- Physiology (heat, ovulation, fertilization . . .)
- Synchronization protocols
- Artificial insemination (semen handling, thawing and analysis, timing and frequency of
- AI, working with a range of preserved semen presentations)
- Preparation for lap. AI (restraint and sedation of animals; care, maintenance and cleaning
- of equipment)
- Technique of laparoscopic AI (including hygienic aspects)
- Optimization (animal welfare and care, setup of workplace, manpower, . . .)
- Troubleshooting

**Hands-on lessons:**
- Demonstration of lap. AI
- Trainees perform all steps repeatedly under supervision of trainer

#### Embryo flushing and transfer (3-5 days)

**Theory:**
- Physiology (heat, ovulation, fertilization, early embryonic development)
- Hormone treatments (synchronization, superovulation)
- Insemination (timing, frequency, effects on embryo recovery rates)
- Preparation for ET (including check lists)
  - Donor management
  - Recipient selection and management
  - Restraint and sedation of animals
  - Care, maintenance and cleaning of equipment
- Technique of uterine flushing (including hygienic aspects)
- Embryo handling (media, lab equipment, critical steps of work)
- Optimization (animal welfare and care, setup of workplace, manpower)
- Troubleshooting

**Hands-on lessons:**
- Demonstration of lap. ET
- Trainees perform all steps repeatedly under supervision of trainer
Semen collection, evaluation and freezing (2 days)

Theory:
• Physiology (anatomy, spermatogenic cycle, ejaculate composition)
• Semen collection (instruments and techniques)
• Semen evaluation (criteria and instruments)
• Semen extenders (composition and use)
• Cryopreservation of semen (semen extenders, cryologic damage, freezing protocols, instruments, storage, and management of semen)
• Preparation for semen collection, evaluation, processing and freezing (check lists)
• Optimization (animal welfare and care, setup of workplace, manpower)
• Troubleshooting

Hands-on lessons:
• Demonstration of all different steps of the process
• Trainees perform all steps repeatedly under supervision of trainer

Embryology

Theory:
• Physiology (ovulation, fertilization, early embryonic development)
• Embryo handling (media, lab equipment, critical steps of the process)
• Troubleshooting

Hands-on lessons:
• Searching and grading of embryos
• Embryo preparation for Fresh/Chill & Thaw transfer
• Embryo splitting
• Embryo freezing

Lecturer

Our trainers are very experienced in practical laparoscopic AI techniques and embryo transfer in small ruminants. They have trained veterinarians and technicians in these techniques for more than 30 years.

Organisational Information

Training locations: Australia/Victoria and internationally (locations provided for customers upon demand)

Maximum number of participants per seminar: 5

We organize guest house / hotel accommodation upon demand.

If you are interested in a seminar please contact your local sales representative or send an e-mail to seminar@minitube.de