

# Sheep Artificial Insemination Fact Sheet 10: Laparoscopic Artificial Insemination

## Benefits:

- It is the only way frozen semen can be used with relatively high results
- The use of frozen semen widens your range for potential sires
- You only need around 20 million semen for optimal results rather than 120 million for Vaginal AI

## Negatives:

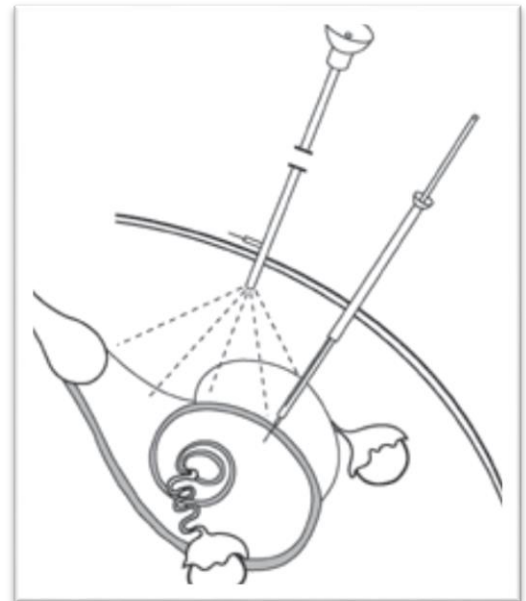
- Very expensive. (Must hire a veterinarian or technician trained in LAI, acquire specialized equipment, and tranquilize your ewes)
- More stress and risk for your ewes
- Must inseminate a large group of ewes or coordinate with other producers in order to make the cost worth it



## Procedure:

- **Laparoscopic insemination must be performed by a specially trained technician (in many states it must be a veterinarian)**
- Sheep must be fasted for at least 12 hours prior to procedure and should be kept stress free.
- The sheep will need to be sedated and placed on a AI table designed for holding sheep. They will be tilted with their head down at a 45-degree angle.
- After prepping the surgery sites, two small incisions are made and endoscopic tools are inserted into the lower abdomen. The abdomen is inflated with CO2 in order to increase visibility of tools and avoid injury to internal organs.
- About 0.1ml of the semen is then deposited in each of the uterine horns.
- The laparoscopic tools are then removed. The small incision generally only need to be cleaned and allowed to heal naturally.

*Prepping ewe on AI Cradle*



*Diagram of procedure and tools*

- The ewes may be given a broad-spectrum antibiotic as a post procedure precaution.
- From the AI table, the sheep should be moved into a stress free environment as soon as possible. They haven't eaten for a while so they should have free access to food and water.

Success rates:

- Success rates for laparoscopic insemination vary greatly depending on the accuracy of the synchronization, semen quality, breed, sheep management, time of year and the skill of the technician.
- Success rates tend to be at around 50-80 percent when an experienced technician is performing the procedure.

