Case study: Our description of LAI process at Old Chatham Sheepherding Farm – Fall of 2017 and Spring of 2018.

Submitted by Tom Clark, October 2018

The LAI process is complex. Recommendations for procedure and ewe management vary substantially by LAI technician, and it is very important to do research on the process, talk with others who have been successful, and follow all recommendations very carefully. We used Martin Dally with Supersire Ltd., who provided guidance on his website regarding LAI.

First, we started with top quality, healthy animals. Martin Dally recommended ewes that were not lactating. (Not all LAI technicians require that the ewes are dry; Martin Dally did.) The minimum time following dry-off to LAI was three to four weeks. The animals should be well fed with good pasture, or top quality hay and a balanced sheep grain ration. Let yearling ewes get old enough to be fully mature. In our case we bred 50 ewes from the Spooner dispersal auction. Twenty-three were 2- to 3- year-olds and had lambed before. The rest were yearlings born in January 2016. We waited until late October 2017 to do the AI work so the yearlings had a chance to mature.

About eight weeks before LAI, we took blood from a sample group and tested for trace minerals and vitamin levels. Selenium, copper, cobalt, and zinc need to be checked, as well as Vitamin E level. About six weeks before LAI we did condition scoring. Any ewes below 3.0 BCS were separated and given a higher grain ration. All ewes scored above 3.0 BCS when they were ready for CIDRS (we were advised not to use sponges). Some technicians advise the use of a teaser to determine which ewes are cycling and remove the ones that are not cycling. We did not have a teaser ram so we put our only mature ram in a separate pen near the ewes scheduled for LAI, after the CIDRs were removed. Keeping ewes in a low stress
condition is important. Do not use any dogs. Protect from excess heat and provide plenty of fresh water.

Following is the procedure we followed for synchronization and the LAI:

- **October 8** – starting at 8:00am – Insert CIDRS in 53 ewes.
- We used a Nolvasan solution to rinse the applicator. A slight amount of Vaseline was used on the applicator. Insert the wings of the applicator so they are at a 45 degree angle to minimize possibility of falling out.
- **October 21** – We put our good ram in a pen near the ewes with CIDRs.
- In the afternoon, we separated the ewes into three groups and placed them in separate pens with hay and water.
- **October 22** – Pulled CIDRs according to following schedule:
  - Group 1 - 15 ewes at 6:30am
  - Group 2 - 20 ewes at 8:00am
  - Group 3 - 15 ewes at 10:30am
- **October 23** - Took ewes off feed for 24 hrs and water for 12 hrs
- **October 24** – We started the LAI as follows:
  - Group 1 - 8:30am
  - Group 2 - 10:00am
  - Group 3 – 12:30pm
- Bring each group into holding pen outside vet room and administer local anesthetic.
- After procedure – sprayed disinfectant on wound (Blue-Cote or iodine solution) and injected with Penicillin 5ml per ewe using a 16 gauge needle.

After AI was complete we went back to normal feeding routine. Don’t make any significant changes in feeding routine. No animal stresses!
Around month three we switched to a different feed mixture. We increased the ewes’ amount of grain to 1.6 pounds per animal per day. We upped this ration again on February 23 to 2.5 pounds per day per ewe.

We set a goal to have lambs as disease free as possible, so we took all lambs off Moms at birth and we bottle raised the lambs to prevent transfer of CL and OPP from the Mom. All Mom’s were milked. This effort required around the clock monitoring and lamb care. We had a lot of volunteer help!

**The result** – **35 of 50 ewes lambed and produced 29 ewe lambs and 33 ram lambs!**

Supplies we used:

- Needles – Valley Vet.com or local vet. Needed to buy enough needles as they were only to be used once.
- CIDRS – Jeffers Livestock or Premier
- Hormone – Premier
- Penicillin- Spray disinfectant
- Lidocane