

Tips for the Sheep Breeding Season

Fall is the main natural breeding season for most breeds of sheep in Nova Scotia. Shortening day length in late summer and early fall initiates the hormone cycles that result in ovulation and estrus in the ewe and increased sperm production and libido in the ram. This is the “photoperiod effect”. Breeding season is when the lamb crop is first created and established. The success at lambing really begins with breeding management.

Preparation of the Ewe Flock

Records

Review your records and note those ewes that had poor results from the previous season. A good record keeping system such as *Ewe Byte* or *GenOvis* makes the evaluation of the performance of the ewes much easier and with greater objectivity and accuracy. Note any ewes that had physical problems such as prolapse or mastitis. These problems are likely to reoccur in subsequent pregnancies. On average, a producer should look at replacing about 15% of their ewe flock each year.

Flushing

The day the ewe is bred she should be in the best condition of the year (carrying condition scores of 3-4). Flushing is the practice of putting ewes on a rising plane of nutrition 2-3 weeks before breeding and continuing for 2-3 weeks after breeding. Flushing provides an energy surge to the ewe and has shown to increase egg ovulations by up to 15% to 20%. The flushing response can be achieved by putting the ewes on high quality pasture or supplementing forage with grain. Depending on the condition of the ewe, this can be up to 500 grams a day of a grain supplement.

There are several factors that influence the degree to which the ewe will respond to flushing:

- Body Condition Score - Thin ewes will experience a greater response than ewes in moderate-heavy condition.
- Time of Season - A greater response is seen during the earlier and later times of the season rather than the peak of the natural breeding season.
- Breed of Ewe - A greater response is usually seen in less prolific breeds rather than breeds which are naturally prolific.
- Age of Ewe - Mature ewes show a greater response than ewe lambs or yearlings.

Health and Management

Insure all health treatments, parasite treatments, shearing and hoof trimming are completed well in advance of the breeding season. Avoid any handling of the ewes or sudden changes in their feeding and housing for several weeks after breeding. The first several weeks after conception is a delicate time in the development of the embryo and sudden stress at this time can create a hostile environment in the uterus, which could result in early embryonic loss.

Replacements

Evaluate your ewe lambs or open yearlings and select replacements. The replacements should be the individuals that best exhibit the breeding goals of the producer, be it prolificacy, growth, wool quality or confirmation. Here again, a good recording keeping system will make the assimilation of production data much easier and will more accurately point out the top replacements.

The Ram

Don't forget the ram! He is the essential member of the breeding flock. An occasional sterile ewe can be tolerated. However, a sterile ram can have devastating results. Remember that the process of sperm production takes 7 weeks to be completed. During this time if the ram is ill, has a temperature or is exposed to high ambient temperatures it could impact the quality of sperm at breeding. As with the ewe, the ram should have completed all management and health treatments long before the breeding season starts. They also benefit from a nutritional flush before breeding. However, the ram should not be allowed to become obese. This will have adverse effects on libido and breeding durability. The production of sperm and libido are both adversely affected by high temperatures. The ram should be protected in hot breeding weather. The producer may consider just putting the ram to work during the evening and night-time in order to avoid breeding exhaustion during hot day time temperatures. A good mature ram should be able to handle 40-50 ewes and have them breed within two 18 day estrus cycles.

The ram lamb represents the greatest genetic progress of the flock and should contribute these advanced genetics to the breeding flock. However, the producer should be cautious with a ram lamb or new ram until they are sure the ram is fertile and has good libido. Well grown ram lambs can be bred with 10-15 ewes in the first year.



A ram with a marking raddle.

Use a marking system on all rams; either a crayon harness or brisket raddle. This will leave a mark on the ewe any time she is mounted. Start the breeding season off with a lighter color marker. The producer will want to see all the ewes marked within the first two weeks of the season. This indicates that the ewes are cycling well and the ram is working. After 14-16 days, change the marker to a dark color and hope few ewes return. If greater than 25-30% of the ewes return to service, the breeding ability of the ram should be questioned and a replacement quickly considered. Another advantage of a marking system, if good records are kept, is that the producer will have a good idea of the lambing date for each individual ewe and can group and manage ewes accordingly.

Many producers will divide their breeding flock into smaller groups for the first cycle or two (18-36 days). Then, they will allow the entire flock to run with a dependable proven ram to clean up any missed ewes. The goal of the producer should be to maximize lambing percentages and have the lambings come in a tight time frame to allow for efficient use of resources. An efficient and productive breeding season is where that result begins.

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