



4: Managing Rams for Superior Performance

Take Home Messages

- Protect your investment in good genetics with good nutrition, health and management protocols.
- The two months pre-breeding and the breeding season itself are critical times in a ram's life.
- Have a plan for introducing new rams to the flock.

The terminal rams in a flock provide 50 per cent of the genetics for each lamb crop. All too often the rams get neglected for the 10 months of the year they are not needed, and yet are expected to breed 25 to 50 ewes or more in a six-week period.

1. Housing considerations. Rams should be kept separate from the ewe flock except during defined breeding periods. During this time they need a pen or pasture with sufficient room to exercise and maintain general fitness. During a normal Canadian winter they need enough straw or other bedding to ensure that their testicles are not frost bitten. They may not need a roofed shelter, but they do need protection from the wind. Feed rams to meet their nutritional requirements as the seasons change. Rams that are exposed to cold winter temperatures need extra energy in their daily ration to compensate for heat loss. During the heat of summer, rams should have some form of shade and full access to good quality water. Ram lambs require a higher level of nutrition than mature rams, and should be housed separately.

2. The feeding program. Rams should be fed to maintain a body condition score of 2.5 to 3.0 (scale 1-5) for most of the year, with 3.0 -3.5 as the target for breeding season. Condition score your rams monthly to ensure they are in the target range. Good quality hay, silage or pasture usually provides sufficient protein and energy to get the job done. Supplement with grain if poor quality roughage or straw makes up more than one third of the total ration. Rations should be balanced to ensure that vitamin, mineral and trace mineral requirements are met. Remember that ram lambs need higher levels of energy and protein in order to reach their potential mature weight and size. Don't forget that rams need salt and minerals too. Clean fresh water is critical for ram health.



Rams need access to clean water.

3. Over feeding resulting in rams getting too fat should be avoided at all times. Condition scores greater than 3.5 are excessive for rams. The adverse affects of excessive fatness include:

- reduced fertility from overheating of the testicles;
- poor mating performance – lack of aerobic fitness and mating dexterity, especially a concern when breeding ewe lambs or small ewes;
- lameness – due to cartilage damage during rapid growth or laminitis (founder);
- increased susceptibility to heat stress;
- unnecessary feed costs.

4. The Health program. Be sure to include rams in your general flock health discussion with your veterinarian. Normally rams should be vaccinated against the same diseases as the ewe flock. Parasite management practices recommended for ewes should be applied to the rams as well. Treatment protocols for specific diseases will be similar to what the ewe flock receives, making allowance for the increased body weights of rams. Check or observe your rams regularly for any signs of illness or disease. Feeding time provides a good opportunity to detect any abnormal behaviour that may be related to illness. Routine foot trimming and shearing in sync with the ewe flock should be practised.

5. Pre-breeding season. The ram battery should be evaluated two months before breeding season. Condition scoring will allow you to adjust the feeding program in order to get your rams in the target condition (score 3 to 3.5) for breeding. If the ewes will be receiving grain during the breeding season, make sure the rams are accustomed to a similar level by the time they are put with the ewes. This can be done over the three weeks preceding the turn out date. Annual vaccine boosters should be given and feet examined and trimmed if necessary. Annual shearing should be done by this time. A Breeding Soundness Examination (BSE) should be done by a veterinarian at least 30 days before the ram is to be used. The best genetics in the world are of little value if the ram is sterile (a rarity) or sub-fertile. Routine BSEs done on the Lakeland Carcass Sire project rams showed that 10 per cent of rams were unsatisfactory. A BSE includes the following :

- Physical examination of the ram and sexual organs;
- Measurement of scrotal circumference;
- Collection of semen;
- Microscopic examination of a semen sample for motility and defects;
- Classification into one of four categories: excellent, satisfactory, questionable or unsatisfactory.

The BSE does not include an assessment of libido (interest in breeding) or serving capacity (ability to breed successfully). Discuss this with your veterinarian during the BSE. You can assess the ram's libido by putting a couple of ewes in the pen and observing his level of interest. Indifference is not good. If the ewes are in estrus you can also assess the ram's serving capacity. At the very least you should always observe the ram in the breeding pasture to assess his libido and mating competence. Rams that have a short penis may not be identified during a BSE so this is an important task.



Microscopic examination of a semen sample slide

6. The breeding season. To get maximum genetic value from your rams, manage the breeding program with the following thoughts:

- It is common to flush ewes for breeding by feeding them supplemental grain. Make sure the rams are accustomed to grain before they are turned in with the ewes. A sick ram isn't a good breeding ram; a dead one is even worse.
- Use a marking harness or brisket paint on all rams. This helps to evaluate the breeding performance of the rams. Change colour of paint or chalk on the harness every 17 days. Start with a light colour. A large number of ewes re-marking may indicate a ram or ewe fertility problem.
- When using more than one ram in a group of ewes, try to use rams of similar size and age. Three rams work well, two may fight and one gets on with breeding. Be sure to familiarise rams that will be working together before they go into the breeding pen. Ram lambs should not be used in multiple-sire breeding groups with mature rams. Larger, older rams tend to dominate smaller rams and can inflict serious damage on a young ram. The dominant ram will breed or mark more than his share of ewes, potentially resulting in lower conception rates and lower lambing percentages.
- Establish a ram to ewe ratio of up to 1:25 for ram lambs and 1:50 for mature rams. Change or rotate rams every two weeks in commercial flocks. Synchronized breeding programs require ratios of 1:5 or 1:10.
- Rams can lose up to 15 per cent of their bodyweight during a 45-day breeding period. This may have a negative impact on their serving capacity. This is why a condition score of 3.5 is desirable at the start of the breeding season.



Using a marking harness to assess breeding activity

7. Bringing home a new ram. Introducing a new ram to the flock requires management. Travel and arrival in new surroundings are stressful for rams. Any new arrival should be isolated for four weeks as part of your biosecurity program. This also gives the new ram time to become adjusted to his new environment. During this period you should:

- Observe daily for any signs of illness or disease;
- Introduce new feeds gradually over seven to ten days (this is particularly important for high energy feeds, silage and lush pastures);
- Vaccinate as recommended by your veterinarian;
- Provide the level of nutrition required to obtain or maintain breeding condition.

After the isolation period it is time to introduce the new ram to the other rams. Add the new ram to the group at least a week in advance of the breeding season so that they sort out their dominance. If possible add the new ram(s) to a group that is similar in age and size. Do this in a very small pen or even a stock trailer. Take time to watch the rams over the first couple of hours to ensure that the new ram is surviving the inevitable fighting.

8. Culling. Rams should be culled from the flock if they are not capable of breeding, if improved genetics are required or to avoid in-breeding. If the ram is sound and less than five years of age it may have some value to other producers. Another option is to have the ram vasectomized and used as a teaser. If there is no use for the ram, he should be culled soon after the breeding season in order to save the cost of further feeding. In contrast with the beef industry, there is no profit in feeding rams to better condition in hope of getting a better price for sale as meat animals.

Additional Reading

The Lakeland Carcass Sire (LCS) project, conducted at Lakeland College, Vermilion, Alberta, was designed to compare the growth and carcass characteristics of lambs sired by the five terminal sire breeds commonly used in Western Canada.

Building Better Lambs 1: Using Terminal Sires

Building Better Lambs 2: Selecting Terminal Sires

Building Better Lambs 3: How to Use Performance Records to Select Terminal Sires

Sheep and Goat Management in Alberta – Reproduction

http://www.ablamb.ca/producer_mgmt/sheep_goat_mgmt.html

- *Body Condition Score in Sheep* – Appendix 1 (P.55)
- *Management of Breeding Rams and Bucks* – Section 7. (P. 47)
- *Reproductive Problems in Rams and Bucks* – Section 8. (P.51)
- *Breeding* – Section 1. (P.1)

Sheep and Goat Management in Alberta – Nutrition

http://www.ablamb.ca/producer_mgmt/sheep_goat_mgmt.html

General guidelines for feeding sheep and goats

<http://www.sheepandgoat.com/articles/generalfeedingguidelines.html>

What's the Score? Body Condition Scoring for Livestock CD available from ARD 310 FARM or 1-800 292 5697.

Useful Websites

Canadian Sheep Breeders Association <http://www.sheepbreeders.ca/info.html>

Genovis www.genovis.ca

Lakeland Carcass Sire Project [http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/sg10536](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/sg10536)

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