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Ram Maintenance and Breeding

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Rams must be healthy and in good condition before and during the breeding season. Factors such as malnutrition, parasitism or disease may decrease the effectiveness of rams. Diseases affecting the feet or reproductive tract may render the ram incapable of servicing a ewe or cause complete infertility in the ram.

Sheep, including stud rams, being introduced to the flock should be maintained separately for observation for 3 to 4 weeks. In areas where footrot is a problem, a longer quarantine should be observed. The feet of all rams should be inspected and trimmed at least a month before breeding season starts. A lame ram at the start of the breeding season is the result of poor management.

All new rams should be drenched for internal parasites and should be sprayed, dipped or dusted for external parasites before they are combined with other sheep.

Strange rams will fight when they first get together. If rams are to be kept together, put them in a small pen for a few days. If put together for the first time in a large pen or field one may kill the other or both may be injured.

DISEASES

Epididymitis

This is a disease affecting one or both testicles of the ram and may cause complete or partial infertility. The *Brucella ovis* (REO) organism is most often associated with the disease but several other organisms may be involved. Enlargement of the testes may also be caused by injury, with or without the involvement of one of these organisms. A skilled person such as a veterinarian can generally identify the disease by palpation of the scrotal contents. A common symptom is development of a granuloma or lump in a portion of the epididymis.

Rams affected with epididymitis normally produce semen of poor quality. The use of such rams is one of the major causes of reduced lambing rates. Poor conception rates, birth of weak lambs and possibly some abortions may be attributed to the disease. When infected rams are used, the disease is often transmitted to clean rams during the breeding season. The disease may also be transmitted from an infected ewe to the offspring. When clean rams are run with infected rams during the non-breeding season, the disease may be transmitted by sodomy.



This foot needs trimming



Demonstrating the proper way to trim a foot



A properly trimmed foot

Epididymitis, if caused by REO, can effectively be controlled with a rigid culling and vaccination program. If epididymitis is a problem the following procedures are recommended: (1) All rams in the flock should be examined before the breeding season begins and again at shearing. Any affected rams should be sold and marked for "slaughter only"; (2) all rams in the flock should be vaccinated — 2 injections 30 days apart are recommended with an annual booster; (3) replacement rams should be vaccinated before they are put in with older rams; (4) producers of purebred, range and commercial rams should vaccinate ram lambs at 4 to 6 months of age followed by a second injection 30 days later (SID Handbook).

Sheathrot

Sheathrot, also called Posthitis and Urine Scald, is caused by an unnamed bacterium and urea from the urine. The bacteria seem to have the power to hydrolyze urea with the production of ammonia which causes irritation of the prepuce.

A small scab first forms on the sheath. As irritation increases, the scab-covered lesion may surround the orifice. If internal lesions develop the prepuce becomes swollen and there may be an accumulation of urine and pus in the sheath.

There is no practical means of control other than regular diligent inspection for signs of sheathrot for several weeks before the breeding season. The ram who develops sheathrot just before the breeding season may well be useless for the rest of the season.

One method of treatment is to put one part copper sulfate in 8 parts vasoline and apply to the lesion. Antibiotic ointments will also give good results. Before any medication is applied, the end of the sheath should be cleansed and urine and pus

should be removed from the prepuce (SID Handbook).

MARKING

Some system of marking is advisable so you will know when the ewes are bred and whether the ram is doing an effective job. A marking harness with crayons can be used for the ram, or his brisket can be smeared with a marking pigment. In either case, whenever a ewe is bred her rump will be marked. Change the marking crayons or the brisket smear pigments every 17 days. For the smear pigment, you can use yellow ochre, venetian red or lamp black in lubricating or crankcase oil. Apply it to the brisket every second or third day. Marks from these materials will have disappeared from the ewes by shearing time. **Do not use ordinary house paint!**

TRIMMING A RAM

The wool should be trimmed from around the sheath of the ram. Where severe weather does not set in until late fall, the ram may be entirely shorn in early July or about 6 weeks before the breeding season, even though previously shorn in the spring. He will keep cooler and be more vigorous without his wool. Furthermore, rams in long fleece during hot weather may become infertile because of high body temperature, and it may take 6 weeks or longer for them to regain their fertility.

BREEDING NEW RAMS

It is not a good policy to change the environment and feed of a ram just before the breeding season. The ram should be purchased at least a month before breeding time to allow him to become used to the new conditions before being put into service. The

same is true with show rams. Gradually lower the condition of these rams and give them plenty of exercise for several weeks before turning them in with the ewes.

When breeding a ram for the first time, where only one ram is used, test him as a breeder. This can readily be done by painting his brisket or using a marking harness. This can give the most reliable measure of fertility during the period of the year when the ewes are coming in heat. However, this requires a period of about 3 weeks (at least one estrus cycle length), which means that lambing time will be delayed by this much time if the ram is not fertile.

Rams should never be closely confined for long periods. They need exercise to keep in good condition. During the non-breeding season the ram should be placed in a separate pasture or field with a wether or another ram or rams where they can get ample exercise.

BREEDING

During breeding, the most common practice is to allow the ram to run in the field with the ewes. If a large number of ewes are to be bred to a ram, or in warm weather, it may be advisable to run the ram with the ewes only at night. The ram will be fresher when turned out and will not have to stand the heat of the day with the flock. When kept away from the flock during the day, he can be fed a ration of grain and hay in the morning when he is separated from the ewes. More rams are needed during the hotter summer months than in the fall.

RELAY METHOD

In breeding a band of range ewes, the "relay method" is recommended wherever practicable. This involves placing half the total number of rams with the ewes the first 2 weeks, then taking them out and putting in the other half. The first group is allowed a rest and good feed for a period of 2 weeks and then placed with the band. The breeding period is finished with all the rams. This method conserves the strength and vitality of the rams, the ewes are settled more readily and a larger lamb crop is obtained by reducing the number of dry ewes.

Similarly, in the farm flock with more than one ram, work out a rotation system letting one ram rest every several days. This will increase the ram's fertility, especially during the hot weather.

Length of the breeding season should be a minimum of 42 days and should not extend over 60 days. After completion of the breeding season, remove the rams from the flock to eliminate a scattered lamb crop and prevent possible rough treatment to the ewes.

FEEDING THE RAM

Though there has been little research dealing with nutrition of the ram, some general recommendations

can be made. The ram, like the ewe, requires adequate nutrition to perform efficiently. Poor nutrition can result in lowered fertility or even infertility, as well as loss of vigor and strength. For best results the ram should be in moderate condition at breeding time.

During other than the breeding season, prevent the flock ram from getting fat. Nothing impairs a ram's breeding ability as much as excessive fat.

During the off-season, except during the coldest part of the winter, a ram can be kept in condition on only pasture or harvested forage. During severe spells in winter, feed some grain. One pound of grain or grain mixture and 3½ to 4 pounds of alfalfa or mixed hay should be enough for a 180-pound ram. Feed a 240 to 250-pound ram the same level of grain and 4½ to 5 pounds of hay per day. When silage is fed, substitute 2 to 3 pounds of silage for each pound of hay replaced.

For a few weeks before and during the breeding season, the ram should be fed nutritious feeds. Feed grain 2 to 3 weeks before the breeding season to condition the ram. If practical, grain feeding may be continued during the breeding period, particularly if the ram is to be put to very heavy service. Oats are the best single grain for rams. Equal parts of whole oats and whole or cracked barley would be a satisfactory ration. Barley may also be used as a single grain ration. Where oats or barley are not available, a suitable mixture can be made up of 6 parts corn, 3 parts bran and 1 part linseed oil meal, by bulk. The ram should receive from 1 to 2 pounds of a grain ration daily depending on his size and condition. In addition to the grain, the ram should be allowed at least 2 pounds of good hay daily, preferably alfalfa. Where possible he should have access to pasture.

RAM EVALUATION

Production testing records will help immensely when evaluating sire performance. Production records indicate that there is a great deal of variability in sire performance within each breed and within many flocks. This means that you should evaluate sire performance as well as individual ewe performance.

The following guidelines will be helpful in making this evaluation:

1. Percent of exposed ewes that actually lamb.
2. Percent of ewes that settle during the first 2 cycles.
3. Percent of lamb crop born, based on ewes exposed.
4. Percent of lamb crop born, based on ewes lambing.
5. Percent of lamb crop weaned, based on ewes exposed.
6. Percent of lamb crop weaned, based on ewes lambing.
7. Average 90-day adjusted weight of weaned lambs.
8. Complete carcass evaluation for at least 5 lambs per sire and preferably 10.

Under farm flock, purebred or other conditions where ewes are exposed to only one ram, you must determine as accurately as possible whether the ram is fertile. One way of estimating fertility is to examine the ram physically for health or anatomical defects that would prevent mating and to examine

the semen for apparent fertilizing capacity (concentration motility and normal morphology of sperm). This must be done with a microscope in the laboratory by a properly trained person such as a veterinarian.

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