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SHEEP
FACTS



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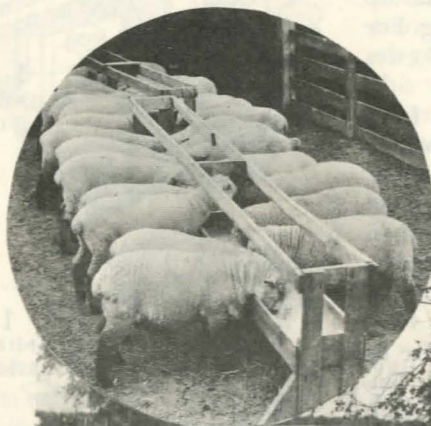
E.C. 67-205

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COLLEGE OF AGRICULTURE

Feeding and Management of Ewes



EXTENSION SERVICE

UNIVERSITY OF NEBRASKA COLLEGE OF AGRICULTURE AND HOME ECONOMICS
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COOPERATING

E. F. FROLIK, DEAN

J. L. ADAMS, DIRECTOR

Feeding and Management of Ewes Under Farm Flock Conditions

By Ted H. Doane¹

Ewes are the backbone of your sheep enterprise. They raise the lambs and produce the wool. These two cash crops are greatly influenced by feeding and management.

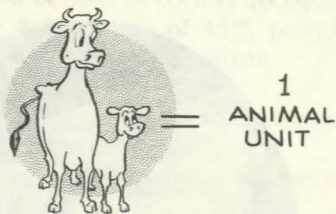
Breeding and selection programs should not be overlooked, but feeding and management practices have more immediate influence upon production. Often, the income of spring lamb production is more than that realized by other meat animal programs. The return is quite high per animal unit.

Expected Return Per Animal Unit

An Animal Unit is a mature cow and her calf until weaning. For sheep, an animal unit is 5 to 7 ewes and their lambs.

Average sheepmen, under farm flock conditions, figure their income per ewe, above labor and expenses, as \$6 to \$10 per year. If one animal unit in Nebraska is 6 ewes, then the average sheep producer expects an income of \$36 to \$60 per animal unit per year.

The recommended flock size in Nebraska is 100 or more ewes. The minimum size is 35 ewes (1 ram unit).



Ewes Need Good Feed

Regardless of the type of ewe in your flock, commercial or purebred, a good ration is essential. As in other classes of livestock, a balanced ration is important. Because sheep are ruminants they are excellent converters of roughage to product. Most sheep rations contain at least 50% roughages and some as high as 100%, depending on the conditions and the particular part of the feeding program.

A balanced ration is important for the ewe:

- (1) For building a strong lamb during pregnancy.
- (2) To produce milk.
- (3) To produce wool.

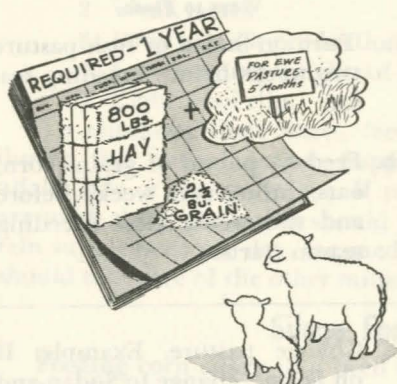
Without a balanced ration, the ewe will not do these three things well. A poor ration will cause (1) weak, poorly-formed lambs, (2) low milk production (sometimes ewes dry up earlier than necessary), and (3) short, weak wool which cuts down the value of the fleece.

¹ Agricultural Extension Livestock Specialist (Sheep).

Utilizing Home Grown Feeds

A producer should use as much of his home grown feeds as possible for economical operation. Although pasture and roughages are the largest part of feed costs, grains grown at home are the cheapest source of concentrates in the ration. It is usually not necessary to buy or have feeds processed in the ewe-lamb operation. Protein supplements, other than the natural oil meals, are expensive. In Nebraska, 44% soybean oil meal usually is the best buy.

Requirements



A ewe and her lamb need about $2\frac{1}{2}$ bushels of grain and 800 pounds of hay every year. In addition, a ewe needs about 5 months of good pasture. (On a hay basis this would mean about 800 pounds more hay or a total of 1600 pounds of hay a year (if pasture is not available.) If the hay is not good-quality alfalfa, protein supplement is necessary. In this case, it would take 20 to 25 pounds of 44 percent protein supplement per ewe, per year.

One ram unit (35 ewes) requires per year: 85 to 90 bushels of corn or its equivalent; 14 to 15 tons of good-quality alfalfa hay and, if the hay is poor-quality or grass hay, 700 to 800 pounds of 44 percent protein supplement.

Table 1. Feed value and cost of other grains compared to corn.

Grain	Percent feed value of corn/pound	Value of feed grain for sheep if corn is \$1/bu.
Corn	100%	\$1.00/bu.
Milo	100%	1.79/cwt.
Oats	80%	.45/bu.
Barley	88%	.73/bu.
Rye	90%	.90/bu.
Wheat	100%	1.00/bu.

Grains need not be ground for most sheep. If you have a few broken-mouthed ewes, grinding may be essential, but for good-mouth ewes it is not necessary.

Feeding and Care at Breeding Time (Flushing)

The ewe does not need much care other than pasture from the time lambs are weaned until just before breeding time, usually two months.

Check the breeding schedule in E.C. 61-207, "Ram Management" to determine when you want to breed your ewes.

Just before your planned breeding time, attempt to condition the ewes reproductive system so that all breeding can be done within a 3 to 4 week period. One reason for conditioning the reproductive system is to try to lamb ewes close together. Another is that this practice helps ovulate more eggs and may result in more twin births.

This process of conditioning ewes is called **flushing**. Flushing can be done several ways, depending on the condition of the ewe and the program.

Conditions	Ways to Flush
1. Ewes on dry pasture, no green chop or grain.	a. Turn on Sudan or lush pasture two weeks before breeding season or b. Feed $\frac{1}{2}$ pound of grain (corn, oats, milo) two weeks before and two weeks after breeding season starts.
2. Ewes on good lush pasture (other than legume).	a. Change pasture. Example: If on brome, change to Sudan and vice versa, two weeks before breeding or b. Feed $\frac{1}{2}$ pound grain daily for two weeks before and two weeks after breeding season starts.

Management During Breeding Season

1. Take ewes off legume pasture two weeks before breeding season. Some research indicates that the estrogens in legumes will keep the ewes from "settling."

2. Tag ewes. Each ewe should be free from burrs, long wool, and other obstructions near the dock and vulva. These "menaces" may keep the ram from completing copulation.

3. Use of estrogen hormones is **not** recommended to bring ewes into heat. There is no concrete evidence that injection of these hormones will induce high enough conception.

4. Grouping a lamb crop can be accomplished by treating the cycling ewes with a progesterone compound. This is administered by feeding, implanting or inserting vaginal sponges for approximately 14 days. Again it is important that the ewes are cycling. Inducing ovulation at the end of the treatment period has been accomplished with Pregnant Mare Serum.

Feeding After Breeding (2 periods)

The gestation period of sheep is 147 to 150 days (5 months).

1. **First 3½ months of pregnancy**—After ewes are bred, there is very little nutritional worry for the next 3½ months. Try to keep ewes about the same weight. They should be healthy and on a maintenance ration. Pasture or hay is satisfactory.

2. **Last 1½ months of pregnancy**—When ewes reach this stage of pregnancy, it is the critical period of their year's cycle. Poor care in this period means lost dollars the rest of the year. The producer loses in:

1. Lambing paralysis or pregnancy disease (possible loss of ewe and loss of lamb).
2. Weak lambs.
3. Drop in milk production.
4. Low weaning weights of lambs.
5. Light wool clip.

To eliminate these losses, feed ½ to ¾ pound of grain per day during this critical period. Supplement this with 2 to 3 pounds of alfalfa hay or its equivalent. If poor-quality alfalfa hay or grass hays are used, the grain ration should contain about .1 pound of 44% protein supplement per day. Steamed bone meal and salt, fed free choice, should take care of the other mineral needs.

Silage For Bred Ewes

Feeding corn silage to a bred ewe is economical in the last 6 to 8 weeks of pregnancy. It can be fed alone, but usually is supplemented with grains. The grain ration usually is added along with a mineral mix or bone meal (1 pound of mineral per day in the grain mixture for 35 ewes, or free choice). If 3 to 4 pounds of silage is fed, 1 pound of alfalfa hay should be enough for the roughage. If silage is the only roughage fed, then 6 to 8 pounds should be sufficient. In this case, it is very important that .2 to .3 pound protein supplement and bone meal be added.

Pregnancy Disease (Lambing Paralysis or Ketosis)

This is a nutritional condition. It is caused by lack of usable carbohydrates (sugars, starches). It usually affects older ewes, particularly those carrying twins or triplets, but occasionally affects those carrying singles.

Most cases occur in poor-condition sheep on inadequate diets, such as straw, corn fodder, or poor pasture with too little or no grain. The increasing demands of the growing fetus finally become too great for the readily available supply of carbohydrates and pregnancy disease results.

Symptoms are progressive—loss of appetite, lagging behind the flock, labored breathing, impaired vision, staggering, and finally paralysis. The urine and breath have an abundance of ketone bodies which

give the same symptoms of ketosis (sweet smell) as in cattle. Management entails two phases, prevention and treatment. Prevention has been discussed in feeding the ewe an adequate grain ration during the critical period (page 5).

Pregnancy disease can be treated satisfactorily if caught in time—before the ewe is paralyzed. Generally, one will exhibit the condition before it is noticed in others. If more ewes show symptoms, supplement $\frac{1}{4}$ to $\frac{1}{2}$ pound of black strap molasses, corn sugar (dextrose) or glycerol to the grain mixture. Drenching the ewes with these materials is another method.

Administration of dextrose or molasses to a ewe in a coma should be by stomach tube 2 to 3 times a day. Sheep in a coma cannot swallow. Injection of sugars into the veins is costly, but is a method of treatment. Prevention is the cheapest in the long run.

Things To Do 6 to 8 Weeks Before Lambing

Exercise a pregnant ewe. Daily grazing, or being fed hay in the pasture is sufficient. The ewe needs to walk enough to keep from getting stiff.

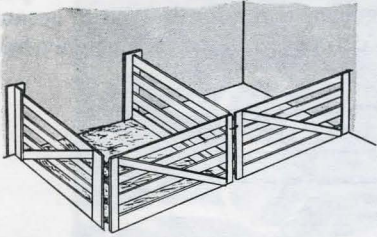
Tagging or crutching the ewe 2 to 4 weeks before lambing is the general practice. Remove tags and sweat locks from around the udder, and the wool which may become tags during lambing, from around the twist. Some producers prefer to shear the ewes at this time. It makes lambing a little easier. Also, the ewes do not wander to the pasture on a very cold day to lamb. This, in itself, may save several lambs in winter lambing.



Tagging the ewe prior to lambing eliminates dirt and filth during lambing.

Photo courtesy of Sunbeam Corp.

Facts About Lambing

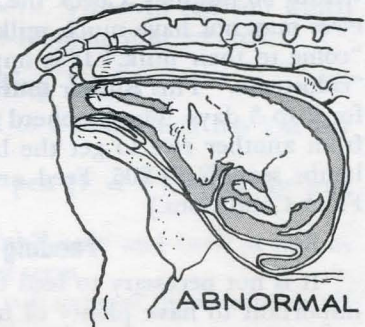
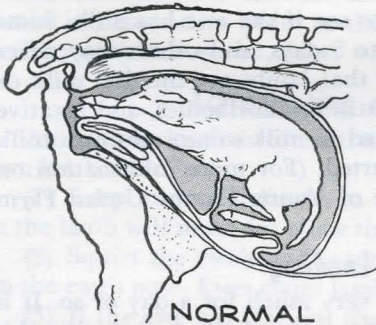


A ewe is pregnant for 147 to 150 days. When lambing time is near, prepare the pen. An individual pen (4' x 4'), made from 8-foot folding panels, makes a good portable lambing pen. Straw or other material is necessary to absorb the moisture. Place the pen in a dry, draft-free shed.

Labor Pains

Do not disturb a ewe for 3 to 4 hours after she starts labor. Most lambs are born within 2 to 3 hours. If the lamb is not born after a few hours and the ewe is in heavy labor, she probably needs help.

Natural births are forefeet first with the head laying on top of the knees. As the feet appear and the nose can be seen, pull the feet slowly downward in a "O" motion. When you can get hold of the back of the head, use it to aid in the pulling. If the nose is not on top of the knees, the head may be folded back. In this case you must straighten the head and then pull. Always pull down in a "O" motion.



Normal birth is with head on top of knees as shown in sketch at left. Sketch at right shows abnormal birth with head turned back. When delivering the lamb, pull in a "O" motion.

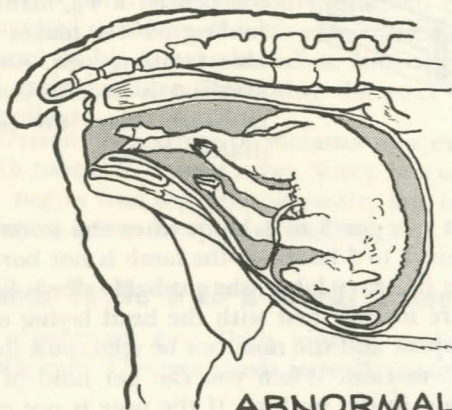
If you have a problem getting the lamb out naturally, it usually is because the shoulders are stopped by the pelvic opening, and not because the head is too large. The head usually is large because it has swollen. These lambs should be pulled immediately. By twisting the lamb, i.e., pulling down on the leg and up on the head in a twisting motion will many times allow the shoulder to rotate past the pelvic bone.

Another problem is that of lambs being born backwards. If you have the feet and cannot find the neck, then the lamb is probably backwards. There are two options:

(1) Push the lamb back in and turn it around for a normal birth. (Extreme care must be taken not to break the navel cord, since this

is the life line of the fetus. If it is snapped the lamb may smother before it can be delivered.)

(2) The other option is a breach birth. A breach birth means pulling the lamb backwards. This is dangerous if the lamb is large because the ewe may be injured. Small lambs can be delivered this way without much problem.



ABNORMAL

Sketch shows a breach birth.

After birth, let the mother "clean up" her lamb. Make sure the lamb nurses within an hour. Most lambs are on their feet and nurse within 30 minutes. Check the udder to see if the ewe has milk. Some ewes may not have much milk for 4 to 5 days, and others may never "come to their milk." It is important that lambs get the first milk or "colostrum." This is their source of nutrients, antibodies, and laxative for 2 to 3 days. The shepherd may need to milk some colostrum milk from another ewe to get the lamb started. (For more information on lambs see EC 61-206, Feed and Care of Young Lambs Under Farm Flock Conditions.)

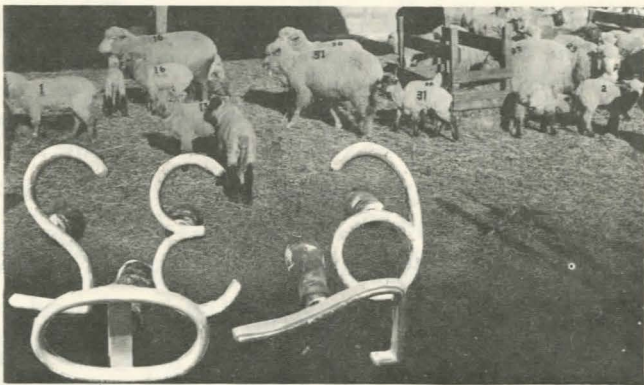
Feeding After Lambing

It is not necessary to feed the ewe very much for a day or so. It is important to have plenty of fresh water and a light feed during this period. On the third day the ewe may be on the regular ration again with an increase to about 1 to 1½ pounds of grain per day within a week. The same grain ration can be used as was used prior to lambing. Continue this ration of grain until the lamb is 2 to 3 months of age.

A good milking ewe needs grain, along with hay or pasture, for maximum milk production. (Milk production continues for about three months.) If ewes are not milking well, add about ½# of a protein supplement each day until she does produce adequate milk.

Management After Lambing

One of the first steps is to identify the ewe and lamb before they are transferred to a large pen. You can do this by tattoos, ear tags, or



Paint brand numbers are used for immediate identification.

paint brands. The tattoo or ear tag is for permanent identification; the paint brand for temporary marking. The brand helps the producer rapidly identify the ewe and her offspring(s).

Use Wool Paint

A large paint number is stamped on the ewe and lamb. The same number is used for both. This pairs them up immediately. For example, if the producer needs to find the mother of a lamb that is sick or weak, he looks for the ewe with the same number as the lamb. Number the lambs in consecutive order as they are born. This will tell you which is the youngest and the oldest without looking at your records.

Transplanting or Grafting Lambs

An orphan lamb is often transferred to a ewe which has lost her own lamb. Methods:

- (1) Keep ewes and lambs in a small pen (4' x 4'). Hold the ewe so the lamb will nurse for a few times.
- (2) Squirt the ewe's milk over the lamb's head and back as well as on the ewe's nose. Ewes claim lambs by her scent.
- (3) If the ewe has just lost the lamb, rub some of the afterbirth all over the body of the lamb to be transferred.
- (4) Skin the dead lamb and make a coat for the orphan.
- (5) Tie a dog in the corner or close to the ewe. The ewe may protect the lamb and establish a claim to it.
- (6) Put tar or vaseline on the nose of the ewe. This eliminates her sense of smell.

When to Wean

All lambs should be weaned by 4 months of age. Ewes drop in milk production after two months of lactation. If lambs are about ready for market, there is little reason to wean them before they are shipped. However, if lambs are light or are being saved as replacements, they should be weaned by this time.

When lambs are scattered or late, and you wish to get all of the ewes back to the same breeding period, wean the lambs at three months of age. This gives the ewes a chance to "dry up," and rest, and all of the ewes will be ready for "flushing" at the same time. This makes it possible to breed the ewes closer together for bunching the lambing.

Pasture

A large part of the feed for ewes is pasture. It is important to have adequate amounts of pasture or enough hay to take care of all roughage needs.

The main pasture may be permanent, but it is convenient to have a summer temporary pasture, such as sudan grass. The best seeded permanent pasture has been brome-alfalfa (a cool season grass with a legume). Bloat is not common because of the quantity of brome in the mixture. Clovers have also been substituted for alfalfa. The following are suggested pasture mixes in Nebraska.

Cool-Season Mixtures

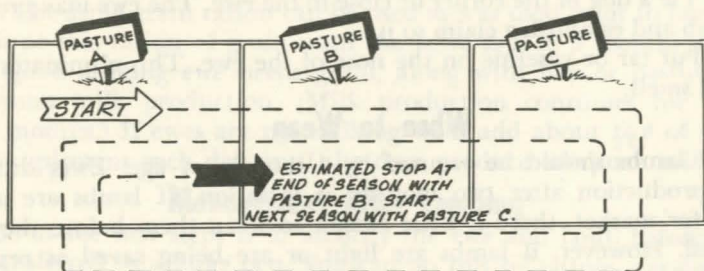
Planting Rate (#/acre)

(1) Brome grass	10-12
Alfalfa	3-5
(2) Brome grass	8-10
Orchard grass	2-4
Alfalfa	2-5
(3) Intermediate Wheat grass	9-12
Alfalfa	3-5

Cool-Season Mixtures

Planting Rate (#/acre)

(4) Red Top	2-5	For wet Acid Soil
or		
Timothy	3-6	
and		
Alsike Clover	2-4	
or		
Red Clover	3-5	



Rotation of pastures gives 25 percent more grazing days.

Rotation of these pastures will give 25 percent more grazing days during the summer and can produce a continuous summer grazing season. To do this, these rules should be rigidly enforced:

- (1) Must use at least three pastures in the rotation.
- (2) Do not put sheep in two pastures at the same time (put all in one).
- (3) Start grazing when forage is 6 to 8 inches tall.
- (4) Move to next pasture when the grass coverage is down to 4 inches in height.
- (5) The pasture to be grazed at the beginning of the following year needs to have 2 to 6 inches of growth at frost to help preserve the alfalfa stand.

Ewes Per Acre

If lambs are never turned out to pasture, the grazing rate during a normal summer is:

Central Nebraska.....5 to 7 ewes per acre

Eastern Nebraska.....6 to 10 ewes per acre

For lambs and ewes on pasture:

Central Nebraska.....5 to 6 ewes per acre

Eastern Nebraska.....6 to 7 ewes per acre

For additional information on pastures, see circulars CC 164, CC 165, CC 167, and CC 174.

Parasites

Internal parasites of sheep cause about \$1 loss per head to Nebraska sheepmen. Most common worms are the eastern stomach worm, thread-necked gut worm, lung worm, and fringed and broad tape worms.

Worms become a problem when pastures are over-grazed, when forages are fed on the ground, and when lambs are allowed to run with wormy ewes. These conditions can be remedied by rotation of pastures, feeding in troughs or feed racks, worming ewes before going to pasture in the spring, keeping lambs in the dry lot, using a low level of phenothiazine during the summer, and worming the ewes again in the fall.

Thiabendazol is one of the most effective and safest worming agents on the market. Roulene and fine particle (micronized) phenothiazine with lead arsenate added have also proven to be very satisfactory in treatment for worms except for lung worm. They should be administered as directed on the package. The treatment for lung worm should be acquired from a veterinarian. Consult E.C. 61-1905, "Prevent Worms To Increase Sheep Profits" for more details on internal parasites.

External parasites are also profit "grabbers." Scabies, a disease caused by a mite, is the most dangerous. It causes loss in wool along with loss of weight. Scabies, along with ticks and lice can be adequately controlled by dipping. Ticks and lice can be controlled by a spray or dust following shearing. Consult your county agent or veterinarian for control of external parasites in sheep.

Summary

- The expected net income on lamb production is \$36 to \$60 per animal unit, per year.
- Good feed and a balanced ration are essential for ewes.
- A ram unit (35 ewes) needs 85 to 90 bushels of corn or its equivalent, 14 to 15 tons of hay, and 700 to 800 pounds of 44% protein supplement if the hay is poor quality, plus 5 months of pasture.
- Flush ewes for a higher lamb crop.
- Keep ewes off legume pastures two weeks before breeding season.
- Estrogen hormones are not recommended to induce heat.
- Prevent lambing paralysis by feeding an adequate ration before lambing.
- Exercise pregnant ewes.
- Tag, crutch, or shear ewes before lambing.
- Feed ewes adequately after lambing to maintain milk flow.
- Identify ewes and lambs by paint brand to eliminate guess work.
- Transplant or graft lambs if it is necessary and possible.
- **Wean lambs by 4 months of age.**
- Pasture rotation will increase the grazing days 25%.
- Parasites must be controlled.

Other Bulletins In The Sheep Series

- | | |
|--------------|----------------------------------------------------------|
| E.C. 61-206 | Feed and Care of Young Lambs Under Farm Flock Management |
| E.C. 61-207 | Ram Management |
| E.C. 61-1905 | Prevent Worms to Increase Sheep Profits |
| E.C. 60-712 | Sheep Equipment Plans (\$1.00) |

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