

Lambing

Lambing time is a very critical period in your management schedule. Lambing usually occurs at the end of a 148-day pregnancy. Proper preparation, good breeding records, and personal notes will allow you to increase the survival rates of newborn lambs. This circular provides helpful information about facilities, equipment, signs of lambing, and techniques for assistance during difficult deliveries. By following these guidelines as well as your veterinarian's instructions, you can improve the success of lambing.

Be Prepared

For maximum reproductive efficiency, you must know the date of breeding, length of gestation, and approximate day of lambing. Table 1, based on a 148-day gestation period, can assist you in predicting the date of lambing. However, you should watch your ewes closely beginning about 142 days after breeding.

Unless you use a marking harness, natural breeding under pasture conditions makes it difficult to obtain accurate records of breeding dates. If you do not know breeding dates, a good rule of thumb is to watch for udder development and looseness of the vulva. Enlargement of the udder can be noticed as early as 4 to 6 weeks prior to lambing. This development is less noticeable in first-time pregnancies than in later pregnancies.

Ewes should be in good general health and body condition.

Good management and nutrition programs will ensure that these criteria are met.

Provide a clean, dry, draft-free environment for lambing. Lambs can tolerate cold but very little draft. A shelter or lambing area need not be elaborate nor expensive. Lambing pens or jugs (4 feet by 6 feet or 5 feet by 5 feet) may be placed around the corners of your barn and along the wall farthest away from the area of traffic. Lambing pens or jugs help keep lambs from multiple births from wandering away from their mothers. Physical proximity produces a stronger bond between the ewe and her offspring.

Shearing pregnant ewes before lambing is a practice that has both advantages and disadvantages. The main advantage is that it is easier to find ewes that are showing udder development as well as those with udder problems. The disadvantage is that, if ewes are handled roughly near lambing, they may give birth prematurely. If you do not shear your ewes before they lamb, at least crutch them. Crutching involves shearing around the udder, between the legs, vulva, and dock. It can be done as soon as udder development is noticeable.

Equipment

You will need the following equipment for successful lambing:

1. Roll of paper towels, old towels, and rags to help with wiping off and drying of newborn lambs.

2. Bearing retainers for treating prolapses.

3. Bottle, nipples, and stomach tube in case lamb needs help getting colostrum.

4. Thermometer (normal sheep temperature is 102.3).

5. Surgical scissors for cutting umbilical cord.

6. Suturing material. Dental floss may be used to tie off umbilical cord.

7. Iodine (7%) for saturating and disinfecting umbilical cord.

8. Lamb puller.

9. Clean hands: fingernails trimmed; hands scrubbed with surgical soap.

10. Lubricant or mineral oil for your hands to facilitate entry for assisting ewe during difficult delivery.

11. Antibiotics, uterine boluses, and injectable vitamin E.

12. Colostrum (preferably frozen) from a sheep, cow, or goat.

13. Mild soap, bucket, and clean, warm water for washing.

14. Mastitis and scours treatments.

15. Docking, castrating, and ear-notching equipment.

16. Ear tags and paint brands for identification.

Signs Of Lambing

There are both psychological and anatomical indications of approaching lambing. Many ewes appear restless as lambing time nears. Some will separate from the flock and look for a secluded

area in the pasture or barn. When confined to an area, the ewe will paw her bedding and smell the ground. At this time you should assume the ewe is in labor.

Lambing is divided into several phases. In the first phase, the cervix dilates and the birth canal is prepared for delivery. This phase lasts 12 to 24 hours. At the end of this time, a clear-whitish discharge will appear. The presence of this mucous is the main sign that lambing has begun. Also, the ewe will often stand, look behind her as if for her lamb, and bleat softly.

The second phase, which can take a few minutes or as long as 3 to 4 hours, involves the gradual acceleration of contractions. As labor progresses, the ewe will spend more time lying down on her side, with her head in the air or extended forward with front and rear legs touching the ground. The uterine and abdominal muscles contract and, as labor intensifies, cause the membranes to swell. The swollen membranes act as an elastic wedge, helping the passage of the lamb through the pelvic area, vagina, and vulva. Soon a large bubble or water bag will appear, break, and expel the water.

At this time (in a normal birth) the tip of the nose and front feet of the lamb can be felt. They are just ready to enter the vagina. As labor progresses, the lamb is forced along the vagina until its toes and nose are visible at the vulva. When the head has passed the vulva, the lamb is born quickly. As soon as the ewe has delivered her lamb, she starts cleaning it—licking its nose and then the remainder of its head. If the ewe is to have multiple births, interest in the previous lamb will cease after the head is cleaned. She will return to labor, a water bag will appear, and soon another lamb will be born.

The last stage of lambing consists of the expulsion of the afterbirth or placenta. The placenta is a red, liver-like mass that many inexperienced sheep producers mistake for part of the ewe's interior, a mummy lamb, or a tumor. The placenta will have strawberry-like lumps and may have whitish cords. It will be expelled naturally about 30 minutes to 1 hour after final delivery of the lamb(s). If the placenta is not expelled within 24 hours, call your veterinarian. A retained placenta is usually a sign of future infection.

You may miss the expulsion of the placenta if you do not check the ewe at regular intervals. The ewe may eat it quickly, since her instincts are to hide the evidence of her lambing to protect the lamb(s) from predators. Also, the placenta helps to replenish her body after lambing. Any remaining afterbirth should be properly disposed of so dogs and predators will not be attracted to it.

Assistance At Lambing

If the lamb or lambs are in normal position in the uterus and the environmental conditions are favorable, no assistance will be required during lambing. However, ewes that have been in hard labor for 30 to 45 minutes without apparent progress may be having a difficult lambing. Personal experience and judgment are critical. Some people assist after 30 to 45 minutes have elapsed so that the ewe does not become exhausted. Others prefer to wait longer until fatigue is evident.

The two main causes of death of lambs at birth are delaying in assisting the birth and assisting without sufficient skill. When labor has been in progress for several hours with no sign of the lamb and the ewe appears to be in unusual discomfort (standing, arching her back, and spraddling

her legs as if to urinate), the cause should be determined. The ewe should be well restrained before attempting to assist. There are three steps: entry, examination, and manipulation. Every lambing is unique and demands a different action.

Many sheep producers are skilled in areas of production but do not know their limitations. The principal ingredients for success are complete sanitation of the hands, knowledge of the anatomy of the reproductive tract, gentleness, perseverance, patience, experience, and good judgment. A safe practice would be to call a veterinarian.

Before assisting in the lambing process, remove all jewelry from your fingers and wrists. Trim your fingernails as close as possible, and scrub your hands and arms up to the elbows, preferably with surgical or highly antiseptic soap. Mild soap, either liquid or bar, will work too. Rinse in clean, warm water. Wash the external genitalia of the ewe with a mild soapy solution and disposable sterile gauze or sterile cotton balls.

Lubricate your hand and arm (right or left) with a sterile jelly. Begin by inserting three fingers in the vagina and gradually enter the entire hand. Carefully work your hand into the vaginal canal, moving slowly and gently toward the uterus. If there is restriction at the entrance of the uterus, stop, wait a few minutes, and re-enter. Usually the womb will be open and no resistance will be encountered while inserting the hand into the mouth of the uterus. Quickly determine the position of the lamb. When your hand feels the lamb, you must absolutely know the rear from the front and the forelegs from the hind legs. If you cannot tell the difference, stop and ask for qualified help. Some of the major frustrations experienced during

the examination are working with one hand, feeling blind because you cannot see what is going on, and being unfamiliar with everything you feel with your hand.

Position Of The Unborn Lamb

The most common types of presentations are anterior and posterior. In an anterior presentation the front feet, with the head resting between them, appear first. When the head has exited the vulva, expulsion of the lamb will quickly follow. The appearance of the hind feet first is called posterior presentation. It may be a little slower than the anterior type and not as easy. Also, the lamb may be twisted or turned in many different ways. Following are the common presentations and directions for assisting with each.

Head first with both forelegs, body right-side-up (Figure 1). This is the anterior presentation and the only normal one. It occurs when the front feet appear first with the head resting between them. Rarely is any assistance necessary. However, when a small ewe is delivering a very large lamb, she may encounter difficulty getting the lamb through her narrow vulva. Lubrication and gentle assistance are required. Pull downward and only during the contractions. The lamb is usually hung by the shoulders, and the contractions that follow will pass the shoulder through.



Figure 1. Head first with both forelegs, body right-side-up.

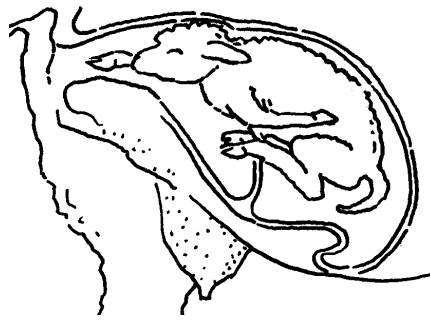


Figure 2. Head first with one foreleg, body right-side-up.

Head first with one foreleg, body right-side-up

(Figure 2). You must bring the other foreleg forward. Try to elevate the ewe's posterior. Sometimes if the rump is elevated, the lamb will recede into the abdominal cavity and naturally reposition itself. However, you will probably have to reach in and bring the other leg up beside the foreleg that is in the correct position. Such action will bring the legs farther in front of the head than normal. The head will often turn back when an attempt is made to pull both legs and the head into the birth canal. Be gentle as you work your way in. Use only one or two fingers if possible. A synthetic sterile cord (1/8 inch in diameter) might be required but only as a last resort. Make sure you bring up a foreleg and not a hind leg.

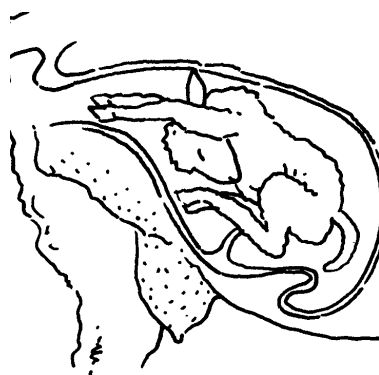


Figure 3. Head bent down with forelegs correct, body right-side-up.

Head bent down with forelegs correct, body right-side-up

(Figure 3). This presentation, though abnormal, is neither unusual nor very difficult to deal

with. Push the lamb back into the uterus. Try to elevate the ewe's rump so that the lamb will recede into the abdominal cavity and give you more room to move your hand in the uterus. Place the head on the forelegs. The contractions that follow will force the lamb out. It is possible that the head will keep twisting away from the proper position. Then you will have to slip a sterile cord and noose carefully around the lower jaw and gently draw the legs out with your inside hand while maintaining a slight tension on the noose.

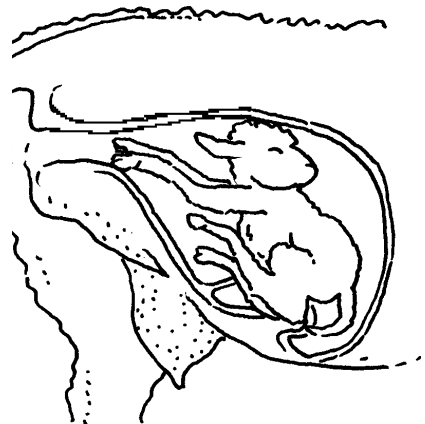


Figure 4. Head thrown back with forelegs correct, body right-side-up.

Head thrown back with forelegs correct, body right-side-up

(Figure 4). This is almost the same presentation as in Figure 3. Remedial procedures are the same. Remember that you must move the head far enough back in order to turn it around.

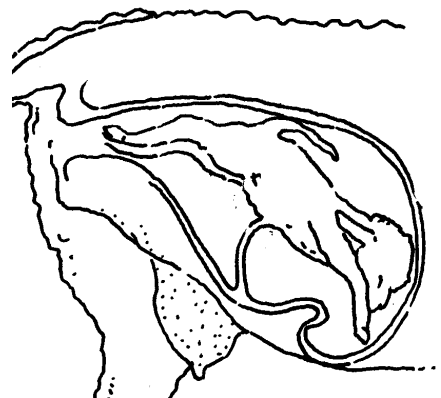


Figure 5. Feet first backwards, body right-side-up.

Feet first backwards, body right-side-up (Figure 5). This is a posterior presentation. It is slow and laborious but not abnormal. It occurs sometimes with the second lamb of twins. You can recognize the hind legs because you will feel the hock joint and upper leg curvature instead of a straight knee and forearm on the forelegs. When the hind legs are out, you must help. With a very clean rag or towel, grasp both hind legs and pull downward gently with the contractions. Twist the lamb gently from side to side and lubricate it with oil if it becomes too dry. When the rump appears, you will have to pull very hard when the ewe pushes. Once the lamb starts to move, keep it coming. Be careful to avoid breaking the umbilical cord.

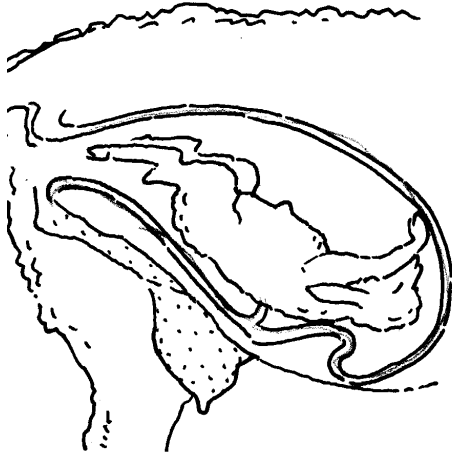


Figure 6. Feet first backwards, body upside-down.

Feet first backwards, body upside-down (Figure 6). A large ewe may deliver a lamb in this position without assistance. This happens sometimes with the second presentation in a triplet birth, when the birth canal is already enlarged and lubricated by the birth of the first lamb. If assistance is needed, reach for both hind feet and gently pull downward when the ewe pushes. Continue with assistance as explained above.

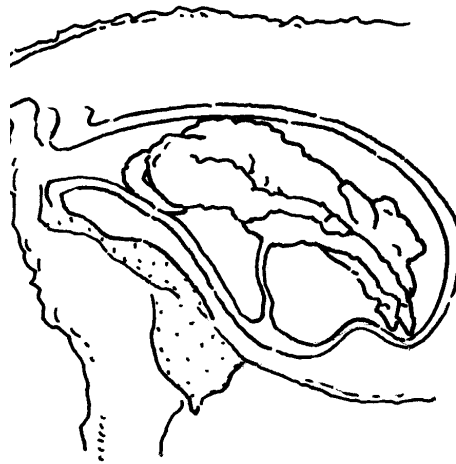


Figure 7. Breach position with rump and tail, no feet visible.

Breach position with rump and tail, no feet visible (Figure 7). This is considered an impossible delivery. Patience is advised because a little time may bring the appearance of the hind feet. In this case, it would be a feet-first-backwards presentation. If the hind feet do not appear after some time, you must proceed to assist the delivery.

Sometimes this presentation is confusing because the body is stuck in the uterus. Or, if the body is in the birth canal, the rump may resemble the head. Feeling for the tail will help you to discern the presentation. Also check the direction the toes are pointing. If the lamb's toes point downward, the presentation is breach. If just the tail is felt, the hocks of the lamb may be against the ewe's pelvis and no progress

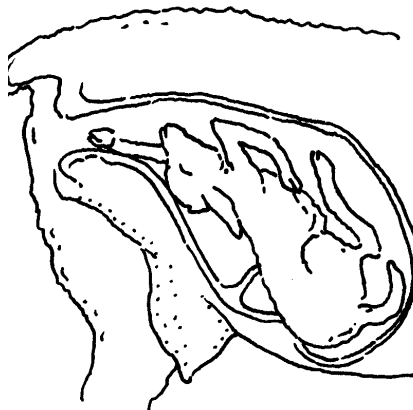


Figure 8. Head first with one foreleg, body upside-down.

can be made. Bring the hind legs out one at a time and be very careful to avoid entanglement with the umbilical cord. Continue as with feet-first-backwards presentation.

Head first with one foreleg, body upside-down (Figure 8). This is much simpler than it looks if you recognize the presentation from examination. Reach over the top of the lamb by pressing its head down. Then gently grasp the hind feet and pull them into the birth canal. The presentation will be changed into feet-first-backwards, as in Figure 5.

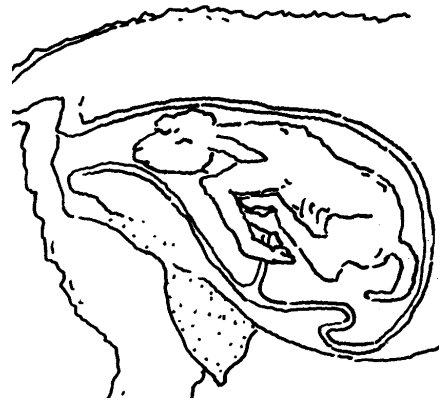


Figure 9. Head alone, no feet visible.

Head alone, no feet visible (Figure 9). This is an impossible position for delivery. Early in the lambing process if both feet are not under the nose, push the head back into the uterus. If the lamb does not rearrange itself, then reach in and get the forelegs and place them under the lamb's head. Resist the ewe's efforts to expel the lamb. Reach under the lamb's neck and with one finger hook one leg and pull it forward under the chin. Great strength is required since you are resisting the efforts of both the lamb and the ewe.

Assistance After The Birth

In normal lambing, the ewe can usually take care of the newborn lamb(s). It is best not to interfere, but be sure the ewe

claims each of her lambs and allows it to nurse before you leave the area. In unusual cases it may be necessary to wipe the mucous from a lamb's nostrils to permit breathing. Breathing can be stimulated by rubbing the inner nostril with a feather or a straw. Artificial respiration methods may need to be applied to some lambs. This is done by blowing into the mouth. The first minutes are critical. Any measures must be taken without hesitation to get breathing started.

Nursing

A vigorous lamb will attempt to nurse within a half hour to an hour after birth. A weaker lamb takes a longer time before it will be up and nursing. Make sure the lamb receives the colostrum. Colostrum is the first milk produced by the ewe for a short period following lambing. Newborn lambs need this soon after birth. Colostrum is very important because it provides energy, protein, vitamins, and minerals, as well as antibodies that help the lamb resist infections. It also has laxative properties, removing fecal matter which has accumulated in the digestive tract. Since lambs are born with a low level of vitamin A, colostrum, which is rich in vitamin A, is essential to build up a reserve. A lamb's ability to absorb antibodies from colostrum decreases rapidly 2 hours after birth.

After 8 hours, a lamb can absorb less than half of the antibodies that could have been absorbed shortly after birth. Orphaned lambs can be given cow's or goat's colostrum from a bottle if a ewe's colostrum is not available. Do not dilute colostrum with water. If it is frozen, do not warm it in a microwave because the heat will destroy the antibodies in the colostrum.

A ewe may disown one or all of her lambs for a variety of reasons. She may deliver one lamb in one location and a second lamb in another location. One of the lambs may wander away before the ewe has finished recovering from the delivery. The ewe may have a very painful udder because of swelling, caking, or infection, or the teats may be cut or chapped. A young or first-time mother may be frightened by the lamb(s) she has given birth to. It takes a great deal of patience to get a ewe that has disowned her lamb to claim it back. However, it is much easier for the ewe to raise her lamb than for you to raise an orphan, so your patience will be rewarded.

Usually it is best to keep the ewe and lamb(s) in a lambing pen or area that is dry and free of draft for 3 to 4 days following birth. Lambs are at highest risk for the first 3 days after birth. Newborn lambs are most comfortable in temperatures ranging

from 77° F to 86° F. Use additional heat sources (heat lamps, etc.) in cold weather. Identify the lambs with ear tags, ear notches, or tattoos and record the information in your records. Disinfect the lamb's navel cord soon after birth with iodine solution or another antiseptic to prevent "navel ill" (joint disease), which is caused by bacterial infection. Castrate and dock the lambs when they are from 2 days to 2 weeks of age. If tetanus has been a problem in your area, give the lamb a tetanus antitoxin or toxoid after consulting with your veterinarian. Give the lambs a clostridium antitoxin if the ewes were not vaccinated prior to lambing. Provide the lambs with other immunizations recommended by your veterinarian.

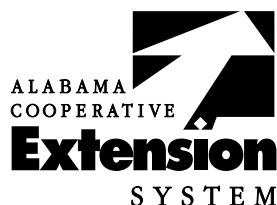
Provide fresh, clean water to the ewe immediately after she gives birth. Feed her only a moderate amount of good quality roughage for the first 2 days. Gradually increase her hay intake for 4 to 7 days, and introduce some grain into her diet. The nutritional requirements of a lactating ewe are much greater than those of a pregnant ewe. Ewes with twins and triplets have greater need for higher nutrient levels than ewes with only one lamb. Consult Extension Circular ANR-812, "Nutrient Requirements of Sheep And Goats," for more information.

Table 1: Gestation Time of Lambs.*

Aug Jan	6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5	Sep
Sep Feb	6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	1 2 3	Oct
Oct Mar	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3	Nov
Nov Apr	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	1 2 3	Dec
Dec May	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3	Jan
Jan Jun	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2	Feb
Feb Jul	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	1 2 3 4 5	Mar
Mar Aug	6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5	Apr
Apr Sep	6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	1 2 3 4 5	May
May Oct	6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5	Jun
Jun Nov	6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	1 2 3 4 5	Jul
Jul Dec	6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5	Aug

Source: Sheep Guide NDSU.

*Find breeding date in upper line; look below to find lambing date. Based on a 148-day gestation period.



ANR-855

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For more information, call your county Extension office. Look in your telephone directory under your county's name to find the number.

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