

NEWS TO EWES



HEALTH & MANAGEMENT

Tips to Reduce Losses Around the Time of Parturition

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Five months ago, identified females were assigned to mate with males to produce the next kids/lambs. Now, it is time to deliver the anticipated crop. What needs to be done to ensure that everything is ready? What is normal kidding/lambing? What problems can be encountered? How can losses be minimized? The objective of this article is to provide some guidelines to follow to try and prevent as many losses as possible before, during, and after kidding/lambing.

Before

Typically, kids/lambs are born in one of three seasons: September/October, January/February, or April of each year. Regardless of the season, the level of nutrition of expectant dams is increased significantly during the last 4 to 6 weeks of pregnancy. Setting genetics aside, provision of 0.5 to 1.5 lb/hd/day of a single grain (corn, oats, barley, or wheat) or grain/protein mix can increase the body condition scores (BCS) to 3.0 to 3.5 (1.0 = emaciated; 5.0 = obese). Dams with higher BCS can be fed less grain/mix while those with lower BCS can be separated and fed larger amounts (i.e., 1.5 lb/hd/day). Delivery will be as normal as it can be and dams will have

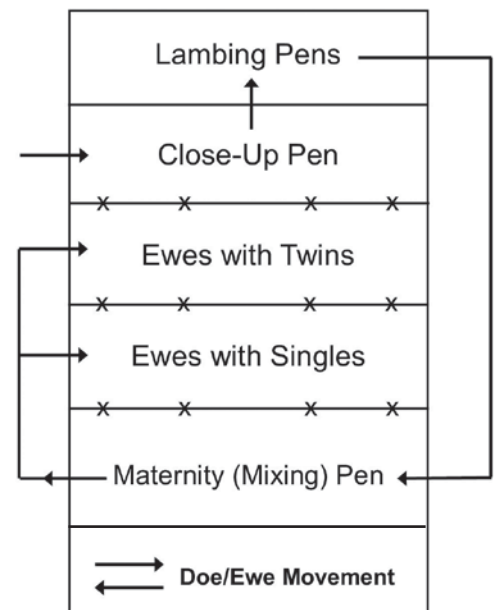
plenty of milk to feed their offspring if they kid/lamb at 3.0 to 3.5 BCS.

Woolled ewes need to be sheared about the time the grain feeding begins (4 to 6 weeks before lambing), regardless of the lambing season. Sheared ewes stay drier and cleaner and require less space in confinement. Body condition in late gestation and lactation is easier to assess, it is easier to evaluate the signs of imminent lambing, and newborn lambs can find the teats faster immediately after birth if the ewes are freshly shorn.

Evaluate the FAMACHA score of all does/ewes 4 to 6 weeks before lambing begins. Those with FAMACHA scores of 3, 4, or 5 should be de-wormed, but make sure the drench label says it is safe to give to pregnant females. Those with FAMACHA scores of 1 or 2 don't need to be de-wormed at this time.

An example kidding/lambing facility, like the one in Figure 1, can be constructed within a barn. Its size can be adjusted to fit the number of does/ewes scheduled to give birth. It can also be made permanent or temporary with metal or wooden panels. Old manure/bedding pack must be removed down to the soil surface at least 3 months before the upcoming kidding/lambing season. Replace the pack with a 3-inch layer of Class-I sand after the soil

Figure 1. A Proposed Kidding/Lambing Facility



surface dries. Bed all pens with wheat straw and move pregnant females into the close-up pen to start the movement through the facility. The most important function of this facility is that it provides a workable movement of does/ewes so they can be managed according to their production (late pregnancy [close-up], parturition, early lactation [maternity/mixing], and females with singles or twins).

As parturition approaches, use breeding records and visual appraisal to identify the “close-up” females and move them into the close-up pen at least a week before the first birth is anticipated. Watch closely for the signs of parturition, which include isolation from the other females in the pen, sagging in front of the hips, relaxation of the vulva, a strutted udder that may drip colostrum from the teats, nervousness, pawing, looking behind continually, and calling (bleating). Sometimes a uterine prolapse may be seen sometime before parturition (1 month, 2 weeks, 1 week, or a couple of days before). A piece of equipment every producer must have is the vaginal spoon shown in Figure 2. Insertion into the vulva/vagina and stabilization with a homemade string harness will allow females to defecate and urinate normally and even kid/lamb with the spoon still in place.

Figure 2. A Vaginal Spoon



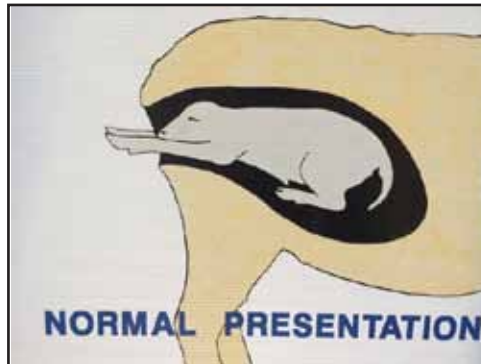
Once labor begins, look for fluid dripping from the vulva and the female lying on her side straining and groaning. Let her give birth and bond with the newborns in the close-up pen before moving to the lambing pen (Figure 1).

During

There are some steps during the parturition phase that humans can take to save kid and lamb lives. During delivery, if an amniotic sac (water bag) has been present for more than 30 minutes without any progression, the dam should be examined for possible malpresentation of the fetus. A normal presentation is shown in Figure 3. If presented with a head turned back, legs folded, one leg back, or only the head visible, try to straighten the malpresentation. If a backward or breech presentation, pull the kid/lamb backwards, but do it quickly because it can strangle if back feet come first. The sooner the presentation is straightened out, the higher the probability that a live animal will be delivered. If you don't feel comfortable in assisting in the deliveries, contact a veterinarian or an experienced livestock

producer for help. Even though a study of the entire delivery process can aid the producers' success, there is no substitute for the actual hands-on experience. Preferably, some of this experience can be gained under the direction of experts at kidding/lambing schools and/or producers with extensive experience.

Figure 3. A Normal Birth Presentation



Occasionally, the cervix fails to dilate in the parturition process (ring-wombed). Stimulation with fingers may cause it to dilate. If so, continued assistance in the delivery process may yield a live kid/lamb. Unfortunately, by the time all of this occurs, the fetus may have died. If a caesarean delivery is an option in a ring-wombed situation, call a veterinarian as soon as it is discovered and hope for a live kid/lamb.

After

It is after the birth of the kids/lambs that the real work begins. The first week after parturition requires more human management expertise than any other phase of the production year. Management practices can be developed from the following description of a newborn.

It is born wet, coming from its mother's internal body temperature of 102 to 103°F, into an environment where the air temperature will be much lower: freezing or colder. They have no nutrient stores, so they have little ability to control their body temperature. Therefore, there is an immediate need for nutrition from colostrum and imprinting with the dam. The gastrointestinal tract of the newborn is wide open to disease causing organisms. Colostrum must be consumed quickly so antibodies contained within can combat potential infections.

After imprinting (bonding) in the close-up pen for an hour or more, dams and their newborn(s) are transferred to kidding/lambing pens. They should be

temporarily constructed so the standard 5 ft. x 5 ft. model can be increased in size to accommodate larger dams and/or increased number of newborns per dam.

Check dams, as they enter kidding/lambing pens, to ensure they have plenty of colostrum and that newborns can nurse. Check every udder to make sure the mucal plugs in the teats are removed. If the newborns did not nurse in the close-up pen, place their mouths on the teats and manually squeeze colostrum into their mouths. Tickling their tail area may help stimulate them to suck. In turn, the newborn sucking the teat will encourage dams to accept their offspring.

Sometimes, newborns are born weak and may not nurse immediately or normal newborns may get lost from their dams in the close-up pen before they nurse. Both of these situations are especially a problem if they are born in cold weather. Newborns like these become chilled and may have no desire to nurse as they enter the kidding/lambing pens. This is when the stomach tube shown in Figure 4 becomes a lifesaver. This is the most and most valuable piece

Figure 4. A Stomach Tube for Small Ruminant Newborns



of equipment producers can own. Hand-milk colostrum from the dam into a 60-cc syringe attached to the tube.

Hold the kid/lamb between your legs so its head is right below your knees and gently pass the tube through the mouth down the throat until its lips come in contact with the syringe. Push the syringe plunger down so colostrum goes directly into the abomasum. Sometimes when the weather is so severely cold, or the producer is so busy with other jobs, milking and administering colostrum with the stomach tube is the best way to jump-start the newborn, even though it may be strong enough to nurse. If, by chance, a dam has little or no colostrum, **be prepared.** Have colostrum frozen

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in flattened, zip-lock bags (2 ounces per bag). Thaw in lukewarm water. **Do not microwave.** If the newborn has no source of colostrum from nursing, administer frozen/thawed colostrum via stomach tube at 1, 4, 6, 10, 14, 18 and 24 hours after birth. The essential antibodies in the colostrum must be ingested and absorbed across the small intestinal wall within 24 hours after birth. After this time, the intestinal wall closes and antibodies are **unable** to pass into the bloodstream. The dose at each feeding is about 2 ounces, which is equal to 1/3 to 1/2 cup. Synthetic colostrum can be purchased, but it is always best to obtain it from does or ewes in the herd/flock. It is also best to give colostrum from one species to the same species, so **give doe colostrum to kids and ewe colostrum to lambs.**

Other management tips within the first 24 hours post partum include dipping navels with an iodine solution, checking udders of dams, and checking eyes and mouths of newborns for any abnormalities (inverted eyelids, overshot or undershot mouths). If eyelids are inverted, correct immediately by rolling out the bottom eyelid and/or cut a small incision immediately below the lower eyelashes. This will cause scar tissue to form and the inversion will be corrected. Mouth deformities have to be dealt with on an individual basis. Record the identification of these newborns. To do this, ear tags with numbers will be necessary. In addition, the sires and dams of these newborns need to be identified and culled before the next kidding/lambing season. Do not keep any "abnormals" as replacements.

Each newborn should be injected with 0.5 cc (SQ) of Bo-Se at birth. This prevents a selenium deficiency (white muscle disease), which can result in an inability of the newborn to nurse. Although they may appear to be nursing, their tongue slips to the side, preventing them from sucking and consuming the much-needed colostrum. If their mouth becomes cold and their rectal temperature goes below 100°F, they are suffering from hypothermia, which can lead to hypoglycemia. Now, they need some supplemental heat from either heat lamps or kid/lamb coats. If heat lamps are used, three rules apply: (1) securely fasten them in an area that is free from a fire hazard, (2) make sure they are attached high enough to not burn the cold newborns, but low enough to keep them from crowding

under it, and (3) if only the member of a twin is cold, take both to the heat lamp; if only the cold one goes, the dam is likely to not accept it when it is brought back to her.

One of the biggest problems encountered at parturition is dealing with multiple births, especially triplets. Small ruminant females are not designed to raise triplets. To try and maximize production efficiency, graft one of the triplets to a female with a single. The female with the single has to be convinced the triplet is hers. Generally, to be successful in this grafting venture, the female that is to accept the graft should give birth within 12 hours of the triplet birth. Rub the fluids of the female's newborn on the dry triplet and let her dry it off. If she accepts it, great! If not, confine her in a stanchion (head gate) with feed and water. Let the triplet get hungry before putting it with its potential foster mother. Then, manually help it nurse. Leave the potential foster mother in stanchion until the kid/lamb is comfortable nursing. Allow the female out of stanchion for exercise and watch her response. If she accepts the graft, allow them free movement. If not, re-stanchion. Continue to test her until she accepts it or take it away and try to place on the bottle. The problem is, by this time the triplet is probably too old to take the bottle. Therefore, the work continues with the female until the triplet is old enough to wean. Some females accept the graft immediately, others may take days, and others may never accept it, but it is always worth the effort because small ruminant females are always better at raising kids and lambs than are humans and the bottle.

Now that the newborns are nursing, make sure the dams expel their placentas. Remove them from the close-up or kidding/lambing pens, wherever expelled. If it is not expelled within 12 hours after birth, check for a retained fetus. If needed, administer 2cc of oxytocin (IM) to help contract and expel the placental tissue. Give an antibiotic (IM) to prevent bacterial infections in the dams. Concurrently, during the first 24 hours after birth, newborns may encounter constipation or retained meconium. They do great for 12 to 24 hours, then appear humped up with a bloated abdomen. A human infant rectal enema is needed to rectify this problem.

The next 48 hours are crucial to both the dams and their newborns. Normal, healthy kids/lambs vocalize very little during this period. Normal, healthy

newborns also eat, sleep in a curled position, and play. They have warm mouths and full bellies. When they stand after sleeping, they stretch, stand with level backs, and have a rectal temperature between 102 and 103°F. In contrast, hungry kids/lambs appear gaunt, stand with a humped back, bleat often, have cold mouths and the rectal temperature may drop to below 100°F. A healthy environment for newborns is a warm (40 to 50°F), dry, draft-free area that is bedded with clean straw on the barn floor that was previously cleaned and covered with Class-I sand. Health of newborns can change quickly, so they should be checked (gotten up from sleep) every 2 to 3 hours during the day for evaluation.

Newborns need to be watched for signs of pneumonia and bacterial diarrhea (scours) in the first week of life. Signs of pneumonia varies from acting lethargic to rapid breathing and/or rattling when breathing. It is usually associated with elevated rectal temperatures from 103 and 106°F. Pneumonia has to be treated with antibiotics which have to be prescribed by a veterinarian.

Signs of diarrhea can be misleading because symptoms vary from fecal material stuck under the tails (orange/yellow color) to having wet tails when the diarrhea is more watery (gray color). The feces under the tail is usually a result of some excess milk consumption and should be removed manually. Newborns can quickly succumb to dehydration from the watery, gray scours. Recognize and treat for this quickly.

Does and ewes need only water for the first 24 hours in the kidding/lambing pens. Thereafter, provide 1 to 3 lb of medium quality grass hay per head per day. Feeding concentrates in the kidding/lambing pens can stimulate greater milk production than needed or that can be consumed, potentially resulting in udder problems and/or scouring by the offspring.

Does and ewes can develop bacterial infections, mastitis, ketosis, or milk fever while in the kidding/lambing pens. Evaluate each one individually each time their newborns are evaluated. The average length of stay in kidding/lambing pens is 2 to 5 days. Some may only stay 24 hours, while others may need to stay a week or so. The length of stay depends on the health of the females, milk production, disposition, health and strength of newborns, and number of pens available in relation to the

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rate of kidding/lambing. Typically, one pen can handle 9 or 10 does/ewes per kidding/lambing season.

As the females and their kids/lambs are moved from kidding/lambing pens to the maternity (mixing) pen (Figure 1), check the mouths, eyes, and general health of each kid/lamb. If they need to be castrated, this is the time to do it. They can also be docked, vaccinated, ear tagged, and/or paint branded at the same time. Check the udders of does/ewes for sores on their udders, mastitis, and overall functionality of the milk producing unit. Most importantly, deworm all dams at this time or certainly by 14 days post-partum. Deworming as they are moved to the maternity pen (Figure 1) keeps from having to catch them later in a big pen where the young kids or lambs can get run over, stepped on, and/or get legs broken. Deworming at this time prevents the stomach worm rise that typically occurs in mature females after parturition and beginning of lactation. Stomach worms seem to increase their activity (reproduction) during times of reduced immunity. The 14-day period immediately after parturition is one of the most stressful periods for small ruminants. The resultant "periparturient rise" in stomach worm

activity is a phenomenon that can result in significant production losses from decreased milk production and may even cause death of the lactating female.

Summary

The long awaited kidding/lambing season usually arrives with great optimism. Hopefully, this optimism carries through until all newborns are alive, healthy, and growing. This occurrence, however, depends on producers and their innate abilities, their knowledge of the parturition process (before, during, and after), and their willingness to help the does/ewes make the season a success. Plan and prepare in advance for the first birth. Feed the pregnant females in late gestation so they will be in a 3.0 to 3.5 BCS at parturition. Prepare the kidding/lambing facility so it has a close-up pen, kidding/lambing pens, maternity (mixing pens), and pens for females with singles vs. those with twins. A knowledge of the signs of imminent parturition and what constitutes a normal presentation and birth is essential. Even more critical is the reaction to abnormal presentations. The new mothers and the producers must work together to make sure the newborns nurse soon after birth because colostrum provides nutrition,

antibodies, and serves as a laxative to get the digestive tract operational. If the newborn does not suck, the stomach tube (the most important utensil in the barn) is put into use. Constant check of newborns and their mothers in the kidding/lambing pens can head off many potential problems that may arise later. After 2 to 5 days in the kidding/lambing pens, and if all females and their offspring are healthy, castrate, dock, vaccinate, ear tag (if appropriate) and deworm does/ewes as they move to maternity (mixing) pens. Having a barn full of healthy newborns is a joyful sight and is the second step, after conception, towards a viable and economic enterprise.

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