



Managing the Kidding Season

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Kidding season tends to be one of the most stressful times of the production year for goat producers. By investing a little time and effort in the months leading up to kidding and having the proper equipment on hand, you will be ready to handle almost any problem a doe or kid may have.

Planning for Kidding

Planning for kidding season actually begins before the breeding season. When you plan your breeding season, you should look forward to your kidding season and ask yourself a few key questions:

- Will you have labor available when kidding season arrives?
 - If you work off the farm, will your kidding season coincide with a busy period at work?
 - What are the weather patterns usually like when you plan to kid?
 - When will your pastures provide optimal nutrition for your does and kids?
 - When do you see your internal parasite loads start to increase, and are your kids old enough and strong enough to avoid death losses due to parasite infestation?
- Is your kidding season situated to avoid labor conflicts, the worst of late winter or early spring storms, and internal parasites and still supply kids to your market?
 - If not, can you move your breeding and kidding seasons to more easily manage your does during kidding?



One often overlooked preparation is taking the time to establish a real relationship with your veterinarian. Don't wait until the week before kidding begins. Get to know your vet during the relatively slow period before calving, lambing, kidding and foaling season begins. Invite your vet to your farm and talk to

your vet about plans for emergencies, management strategies you may have overlooked, developing a good herd health plan to maximize the fertility and fecundity of your does and the survival of your kids and whom to contact if your vet is unavailable. Veterinarians are often very busy in the spring, and it can be difficult to find one if you do not already have an established relationship.

A week or two before kidding begins, check your equipment. Make sure your obstetrical tools are clean and in good repair. Scissors should be disinfected and sharp, your stainless steel bucket should be cleaned and your obstetrical loop should be disinfected and in good shape. Restock expendable supplies like gloves, syringes and needles, lubricant, iodine (7 percent) navel dip and disinfectants. Milk replacer should be on hand, and you should check your supply of frozen colostrum from last year. Colostrum replacer can be purchased, or you can milk out does that have lost their kids and freeze their colostrum in ice trays. Store the colostrum in freezer bags, then thaw one or two as needed. Make sure your heating lamp bulbs and heat lamps are in working order. Check your stomach tubes and nipples for bottles to make sure they are clean and unobstructed. Feeding bottles should be disinfected and in good condition. Clean out the kidding shed, and check for hazards like sharp wire ends, gaps in stalls or fences where kids or does can be trapped and other sources of injury. Lay out clean bedding and be sure to have plenty of replacement bedding material on hand.

Goat kids are normally very resilient, and with normal maternal care from your doe, they should be fine. There are times and conditions, however, that require your intervention. Kids born when it is very cold, especially wet and cold, need to be moved to shelter as soon as possible to avoid hypothermia. Kids don't usually have a problem with cold, but they must have shelter from wet weather.

Kids born in overcrowded or unsanitary conditions are at risk for infection. It is critical that you dip their navels in 7 percent iodine solution to prevent bacteria from entering their bloodstream through this route.

Does in poor health, kidding for the first time or who are poor mothers will sometimes abandon their kids or fail to allow them to nurse. Penning the kids with the doe for a few days may help, but you must observe the kids and doe carefully to make sure they are nursing and healthy. Weak kids and kids from

large litters may have more trouble suckling or may not get enough nutrition from the doe, so extra care may be needed.

Predators can be a major problem around kidding time, and does with kids may need to be penned close to the barn or house each night.

While the need for all this extra effort may be costly in terms of time and labor, the return on your kids and the knowledge you will gain of your does should help you become a better manager of your herd.

Nutrition, Late Pregnancy and Kidding

As the kidding season approaches, you should closely check the condition of your does. Late pregnancy can be a difficult time for does. Their nutritional needs nearly double, but much of their abdominal space is occupied by the growing fetuses. This makes it difficult for them to consume enough feed to meet their nutritional demands and can cause them to lose body condition. Because goats deposit more of their body fat in their body cavities rather than beneath the skin as most other farm animals, it can be difficult to estimate does' condition unless you actually feel your does. You should particularly feel along the spine in the loin area between the ribs and the hips. Does should be in moderate body condition, 3 on a scale of 1 to 5 (or 5 if you use the scale of 1 to 9). You should be able to feel the bone structures without using firm pressure; gentle pressure should be sufficient.

Goats in poor body condition or undernourished goats may not have enough energy or strength to give birth. Kids from undernourished does may be lighter weight. Light-weight kids have lower survival rates than heavier kids. Does in poor body condition may not produce enough milk, resulting in reduced growth rates for their kids and increased susceptibility to disease and parasites.

While it is important that your does not be too thin, it is also important that they not be too fat either. Overconditioned does can also have more difficulty kidding because of fatty deposits in the pelvic area of the birth canal. Pregnancy toxemia, a metabolic disorder that typically occurs in late pregnancy or soon after kidding, occurs most frequently in overconditioned does. Also known as ketosis, the disorder

is caused by increased energy demands due to fetal growth or the beginning of lactation that deplete the doe's blood sugar levels. The doe mobilizes fat reserves, causing a build-up of metabolic wastes called ketones. Does suffering from ketosis will often have "sweet-smelling" breath, similar to acetone-based nail polish remover. They will go off feed and will become unable to rise. Pregnancy toxemia is an important cause of doe deaths around kidding time. Veterinary help is a necessity in pregnancy toxemia cases. Kids of does diagnosed with pregnancy toxemia almost always die, and removal or abortion of the fetuses is usually recommended to save the doe. Does can be treated with 2 to 3 ounces of propylene glycol twice per day, but treatment is often unsuccessful.

Milk fever (hypocalcemia) is a metabolic disorder in goats that results from low levels of calcium in the blood. This can occur at any time calcium demands on the doe are high, but most frequently occurs when does, especially dairy breeds and heavy-milking meat goats, begin producing milk. Feeding high levels of calcium or phosphorus before kidding can be a cause of the problem. Does suffering from hypocalcemia exhibit stiffness of gait, stagger or tetany. Does will be stiff and unable to rise in the event of tetany. Treatment involves administration of calcium borogluconate by a veterinarian. Animals suffering from hypocalcemia should be kept calm, as startled animals may suffer heart failure. The best prevention is to avoid overfeeding calcium in the weeks leading up to kidding.

Assistance During Kidding

In most cases, your goats will not require assistance during kidding. After all, goats have been successfully reproducing for millennia with little or no care from humans. Most of the instances of difficulty kidding, or dystocia (dis-TOE-shah), result from abnormal fetal posture. Normally, the kid should present both forelegs with its head facing toward the rear of the doe and between the forelegs. Unassisted kidding is still common when the kid does not present normally, and perhaps the hardest thing to do at this point is nothing. You should allow your doe about 30 minutes of hard pushing to expel the kid before you intervene. If you must help your doe, be sure to wear latex exam gloves. Use plenty of lubricant, and gently insert your hand into the doe's vagina. Remember that the birth canal of the doe is relatively small, and your hands may not fit. Gently reposition the kid and allow it to pass through the birth canal. If you cannot reposition the kid, you

may be able to grasp part of the kid and gently pull it out. Be careful not to pull too hard. However, if the head is bent backwards or only the kid's rump is protruding (breech position), you may not be able to help your doe. If you cannot remove the kid within 30 minutes of assisting, it is time to summon your veterinarian to avoid losing your doe.

If the kid does not breathe when it is born, carefully swing it by its back legs to expel fluids from its airway. Push a piece of hay or straw up its nostrils to stimulate a sneeze reflex to start breathing. Remember that many reproductive diseases of goats are transmissible to humans, so blowing air from your mouth into the kid is not recommended. If there is no heartbeat, you can compress the ribs over the heart, just behind the elbow, to mimic a heartbeat until the kid's heart begins to beat. Be careful, as the ribs are small and easy to break. Once the kid is breathing and its heart is beating, you may have to help it nurse. Weak kids may require feeding with a stomach tube. Pass a narrow tube attached to a syringe gently down the throat of the kid. Push no more than 2 to 3 ounces of colostrum directly into the kid's stomach. You may have to perform this task two to three times per day for a few days.

Prolapse

Prolapse is relatively rare in goats, but can occur, especially if the doe suffers from hypocalcemia or has suffered from an especially long and exhausting birth. The uterus of the doe is not usually expelled because of forceful pushing. Rather, it loses its ability to maintain its muscular tone because of exhaustion, low blood calcium levels or other causes, and it simply and slowly glides out of the vagina and vulva. Your veterinarian will gently wash the uterus before reinsertion. Lifting the hind quarters of your doe may help with reinsertion by causing the digestive tract to fall forward and provide extra space. Your veterinarian will gently reinsert the uterus into the doe and close the vulva using stitches or surgical tape. Keep a close eye on does that have suffered a prolapse for uterine infections.

Abortions

Abortion is rare in goats. If you experience an abortion rate of over 2 percent, you should contact your veterinarian. You may have a serious problem in your herd, and you should move quickly to identify and treat it. Care should be exercised if you handle aborted fetuses. Many of the infectious agents that

cause abortion in goats also cause disease in humans. Brucellosis, toxiplasmosis, listeriosis, Q fever and chlamydiosis all cause abortion in goats and serious disease in humans. Moldy feed can introduce fungal toxins into your does and cause abortions. Drought-stressed or frost-damaged forages such as sorghum, johnsongrass, sudangrass and some clovers can have excessively high levels of nitrates that will cause abortions. Broomweed and locoweed are other plants that can cause abortion in goats when consumed. Abortion can be caused by mineral deficiencies. Iodine, copper and magnesium deficiencies have all been implicated in abortion in goats. Pharmaceuticals including steroids, prostaglandins, phenothiazine and dewormers like albendazole (Valbazen) can cause abortions, so be sure to read the label before you treat a pregnant doe.

Mastitis

Mastitis is caused by an infection in the udder. The udder will become red, hot to the touch, tender and swollen. The doe may refuse to allow the kids to nurse. Milking may reveal clotted, foul-smelling, yellowish, watery milk. Pus may also be found in the milk. Poor sanitation is a frequent culprit, as is mechanical damage such as being stepped on. Eliminate muddy areas and overcrowding of your lactating does as much as possible. Mastitis can be treated with antibiotics. Keep in mind that most of the treatments for goats are approved in cattle, but not goats. Be sure to consult your veterinarian and observe withdrawal time scrupulously.

Summary

Under ordinary conditions, goats are very hardy and require little assistance from you to help them produce healthy kids. However, it pays to be

prepared. Plan your breeding season to produce kids when labor, feed, weather and parasite conditions are optimal. Clean and prepare your equipment and kidding facilities before you need them so they are ready in an emergency. Provide proper nutrition for your doe herd. Be prepared to assist does in trouble, but involve your veterinarian when he/she can still help, not after the situation becomes completely hopeless. Remember that abortions are serious and you should contact your veterinarian when one occurs. Finally, take time to relax and enjoy all those new kids basking, nursing or playing in your pastures.

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