

## Goat Management: Weaning

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Weaning is a critical time in the life of your animals. It has great potential for success as well as risk for loss. Proper management of both kids and does during this time can insure a healthy and productive future. Weaning is necessary to reduce the nutritional strain on your does. This allows them to recover from the physical burdens of kidding by building back the nutrients, especially mineral nutrients, lost during pregnancy and lactation.

At weaning, young animals need to be separated and managed based on their age, intended use, and sex. Potential replacement does should be fed for development to prevent excess fat deposition. Market animals should be fed for growth to achieve target weights. This is best done away from the dam and supplemental feeding or better forage for grazing can be used to meet these demands.

Weaning is a stressful time in the herd. Increased stress brings reductions in immunity and a greater chance for parasites and other diseases to develop into serious problems. This is also the time when udder issues in the dam, that may not have been noticed prior to this time, can become evident. These factors make preparation and management critical for the current and future success of your herd. Several things need to be done before you wean your kids. A short check list includes:

- Examine your facilities to make sure everything is set up properly.
- Make sure all products you may need such as feed, hay, and medications are readily available for upcoming weeks.
- Be sure your management plan eliminates the possibility of undesired breeding (separate intact males from females).
- Ensure strong fences and pens are available.

### Facilities Preparation

Weaning challenges your facilities in ways that may not be as critical as the remainder of the year. The sanitation of your facilities before and during the weaning process should be maintained. Weaning pens in a barn should not be used for a long period of time. A week should be the most kids stay in the smaller pens. During this time, pens must be sturdy, secure, well-bedded, ventilated, and clean. Coccidia spreads rapidly in stressed young animals through fecal-oral transmission. So, the cleaner you keep their area, the less chance of a coccidia outbreak.



It is essential that your fences are intact and sturdy because they will be mightily tested as the kids and does try to get back together at weaning and for several days afterwards. High tensile and woven wire fence for pastures is a must. There cannot be gaps under the fence or gates. Pens in barns can be used for a short time, but you need to make sure they are secure as well. The 4x4 woven wire is a good choice for small weaning pens to help prevent any animals getting through. Make sure fences and gates are close to the ground to prevent escape.

Kids should be kept on the same feed and feeders they are familiar with before weaning. Make sure to keep feeders well cleaned to reduce the risk of disease spread. If kids climb or play in feeders, it is important they are cleaned daily to reduce the spread of disease. Provide good quality hay in feeders they can access. It is important to provide at least 8 inches of feeder space per animal if limit feeding during this time so all animals have access to the feeders. Self-feeders do work, but can result in over consumption by some and under consumption by others during this time. Make sure they also have access to water at all times.

The water source must be clean and low enough for the kids to access it. Some livestock water troughs are too high for kids to utilize. Make sure the drinking height is no more than 12 to 18 inches for weaned kids. To prevent drowning, the kids need to be able to reach the water depth in the tank. If the waterer is not an automatic fill, be sure to check and refill often. Access to clean, abundant water is essential for development.

If you did not castrate your buck kids, you need two pens so you can separate your buck and doe kids after weaning. This will reduce the chance of unwanted breeding. This separation will also prevent the buck kids from not only breeding, but chasing the does, allowing for better growth rates. Rutting activity will depend on time of year but bucks reach puberty at 4-5 months of age.



The pens for the does must be well secured. Does will try to get back with their kids. The field they go into need to have good gate and fence placement similar to the fencing for the kids. For the does, 12-inch wide field fence is a good option to prevent heads from getting caught as easily in the fence. In both doe and kid pastures, electric fencing or an electric stand-off wire helps discourage fence challenging, but may not be as effective due to the strong desire of does and their kids to get back together.

### Health Issues

Health issues for both the doe and kid can arise at weaning. Health issues that are common during this time include udder trouble for the doe and parasite infections for the kids. There are strategies that help manage these issues. The key is to observe and detect signs of sickness early, and treat them as soon as possible. Watch for kids that are not as energetic, have poor condition, or start to scour. Make sure the kids are vaccinated properly before weaning to decrease risk of disease and improve effectiveness of vaccination.



#### *Doe health*

The major health concern, at weaning, for the doe herd is mastitis. Does with good maternal traits are still producing milk at this time, making them susceptible to mastitis. Mastitis is the inflammation of the mammary gland and is often caused by bacteria that enters the teat from the environment. Until a doe “dries off”, meaning she stops producing milk, she is still susceptible to these infections. Signs of mastitis include swollen teat or teats; enlarged half of the udder; uneven size of the udder; and tenderness of the udder to touch. Milk from an affected udder often has clumps or clots in it. Often, mastitis issues that happen at, or around weaning are not noticed until the next kidding season. Because it often starts at weaning, it is crucial to observe does closely for any abnormalities and purposefully manage their nutrition and minerals. To properly dry-off the doe, you should start 4 weeks before your weaning date by reducing supplemental feed to the doe. This will help signal the body to reduce milk production. At weaning, eliminate all supplemental feeding (grain) and place the does on poor quality forage for a week. This, again, triggers the system to stop milk production due to the reduction of nutrient intake.

Limiting the intake of water can also help reduce milk production but must be managed closely to avoid dehydration. There are several cautionary measures that must be considered when using this practice. If you plan to restrict water access, you must allow animals to drink as much as they want at least twice a day. Adjust your access to water based on the conditions and forage being provided. Dry forages, such as hay, increase demand for water. Hot temperatures will also increase water demand.

Watch the doe herd closely for signs of abnormally large udders, redness, and signs of pain. These may signal that the doe has started to develop mastitis. The udder should swell in the first day or two after weaning, but start reducing by the 5th day post weaning. If you notice any problems, catch the doe and check her udder. Consult with your veterinarian for recommended treatments for mastitis. You should note these animals and watch them closely next kidding season to ensure they do not have problems with milk quality or availability.

In dairy animals, there are treatments available that are used at dry-off to prevent mastitis. These are not commonly utilized in meat animals. If you have had



a number of mastitis related problems, you may want to consult with your veterinarian about preventative treatments. Keeping the does in a clean environment after weaning also reduces the amount of exposure to pathogens. Weaning is a good time as well to observe for other udder issues such as oversized, misshapen, and extra teats. You should cull animals with these issues as they will only become bigger problems in the future.

*Kid Health*

At weaning, kids are under great stress; this makes them more susceptible to disease outbreaks. This is the time we see most of the coccidia outbreaks in herds. Other parasite issues can also become a problem making it essential to provide proper nutrition and preventative care for the kids.

Coccidia are a protozoa found in the intestinal tract of all goats. While coccidia are found in almost all goats at some level, we tend to see more outbreaks of clinical disease when the animal is stressed. High coccidia populations damage the intestinal lining of the animal and impact their overall performance. It often causes scouring in the kids and death is a possibility due to dehydration and lack of nutrition. Animals that recover often have reduced growth rates and rough hair coats due to the damage to the intestine reducing their ability to absorb nutrients.

Coccidia often can be controlled through the use of feed additives called coccidiostats. The two major ones used and labeled for goats are Deccox® and Ruminson®. Treatment with these products should start, at least, two weeks before weaning and continue for two weeks after weaning. This is a minimal recommendation. Your marketing strategies may dictate a different approach; check the label for slaughter withdrawal times and be sure the time is met before you market any kids. Your veterinarian may recommend alternative treatments that are not labeled for use in goats. Only a veterinarian can legally prescribe a product that is not labeled for use in your species of animal.

Remember that coccidia is transmitted through feces to the mouth. This makes sanitation critical to reduce the spread. It is important to prevent goats from eating off the ground as much as possible. Clean feed and water containers at least every two days or when

contaminated with feces. Hay feeders also need to be cleaned and keep goats from climbing in them. Good planning and construction can reduce these issues and make cleaning easier.

Other parasites are also a concern and need to be addressed at this time. There is research that suggests deworming all animals at weaning can reduce future parasite issues and increase performance in lambs; this is reasonable to believe in goats, as well. You should start checking fecal egg counts and treating kids for intestinal parasites at weaning, if not before. Resistance to parasites is an immune response in goats, so getting them over the first infection can be critical to their future health. Be sure to use an effective treatment. Proper grazing management and selective breeding for parasite resistance can also reduce parasite issues.

Other health issues include overeating disease and pneumonia. Overeating disease is a colostridial infection that causes a bacterial disease in the intestines (enterotoxemia). Preventative vaccines for clostridium perfringens type C and D as well as tetanus (CD&T) should be given before weaning. The first injection of CD and T should be given between 4 and 8 weeks of age, followed by a booster dose according to label directions. Pneumonia is an issue in many goat herds and there are vaccinations that can help prevent the severity of the disease. In order to build immunity, vaccines must be given and followed with a booster dose several weeks later according to labeled directions. Consult with your veterinarian to develop a good vaccination plan specific for your herd for both pre and post weaning, as well as annually. A strong vaccination program before weaning will ensure that goats are healthy and productive after weaning.

Mineral nutrition is critical to the immune response of your animals. Be sure that your kids are provided access to a high quality mineral mix for goats. Copper and zinc are two of the major minerals involved in immune response. Do not to use a sheep mineral for your goats. Sheep are very sensitive to copper so sheep specific feed and minerals do not contain adequate copper to meet goats’ requirements.

Nutrition Issues

Nutrition of does and kids changes at weaning. Without the milk provided by the doe, kids are totally dependent on forage and supplement to supply their nutritional demands. The doe does not need to produce milk and she is generally not pregnant, so her nutrient demands are at the lowest point in the year.

Kids grow rapidly at weaning; because of this, their protein and energy demands are high in relation to their body size. Kids need to be placed on high quality pastures and may need concentrated supplementation (pellets) to meet their needs. Another reason to separate kids at weaning, by sex, is that the gender of the kid also impacts their nutritional demands. Buck kids grow faster and are heavier muscled than does, while wethers are between the two. Table 1 lists the total digestible nutrients (TDN) and crude protein (CP) requirements of a 60 pound Boer or Boer cross growing kid expected to gain 0.5 lbs. per day.

Table 1. Nutrient requirements of 60 lb. Boer or Boer Cross kid.

Nutrient	Buck	Wether	Doe
TDN	1.81	1.67	1.67
CP	.44	.44	.44

The protein requirements are the same, but there is a difference in energy need for the buck to gain the same as the doe or wether. Because of this, we need to manage each sex group differently to achieve optimum growth while not increasing the fat deposition in doe kids. Extra fat in doe kids can cause many issues if they are used as replacements.

The nutritional demand of the dam is greatly reduced at weaning. Once the dry off period is over, their nutrition needs to be adjusted to meet the needs based on their specific situation. It is important to measure your does’ body condition score (BCS) and weight at weaning. Most does lose some weight and body condition during lactation, taking a measure at weaning helps you track and adjust feeding to better meet the animal’s needs.

In general, the does’ protein and energy requirements are reduced by almost a third between lactation and



dry open status. This allows them to be maintained on lower quality pasture without supplementation in many cases. However, thin does need better nutrition to recover before the next breeding season. You need to observe your animals and make adjustments to the feeding program based on their need (BCS and weight) and forage quality. Table 2 lists the CP and TDN needs of a doe near the end of lactation and then after weaning. This would be considered maintenance level (no weight gain expected).

Table 2. Nutrient requirements of a 120 lb. doe at 10 weeks lactation or dry open.

Nutrient	Dry open	10 week Lactation
TDN	1.60	2.63
CP	0.22	0.45

The reduction of energy demand, at this time, allows the doe to gain body condition and weight on lower quality feed. Supplementation should only be provided if the forage is limited or the quality is very low. Make sure you know how to properly do body condition

scoring and use this as your guide for supplementation. Mineral nutrition is critical to the health and future production of your animals. Here are some tips on meeting the mineral needs of your herd.

- Always, have a good quality free choice mineral mix available to your animals at all times of the year.
- Use a goat specific mineral to make certain you are getting the proper balance of minerals for their needs.
- Be sure to read and follow all label directions in feeding minerals as well as with all supplements. Make sure you understand all warnings on the label.
- Never use a medicated feed and mineral at the same time without veterinarian advice.
- Contact your veterinarian if you have a health issue, if you have questions related to the feeding of any product, contact the manufacturer.

## Post Weaning Management

After weaning, utilize your records to select the animals you want to keep in the herd for replacements and start managing them for that purpose. Evaluate the

performance of the does and sires of the kids. Use your records to determine which does are doing a good job and cull those that are not producing for you. Look at the sires and decide if one of them needs to be replaced due to performance of his kids or other hereditary issues.

Market your kids based on a sound marketing plan and realize that if you keep them, you will need to feed them; and that increases the cost. Evaluate the possible increase in price at the market with the cost of keeping them growing until market conditions change. Even kids on pasture have an expense to keeping them. Market the kids and any cull does before breeding starts for the next kidding season.

Good management during the weaning period will result in higher rates of gain post weaning, reduced health issues, and greater overall productivity of the herd. Once does and kids are through this critical period, it is critical to continue to monitor for health issues and provide good quality forage and access to proper shelter. After weaning is over, make sure to clean the facilities. Identify things that need repair and make sure you adjust your plan and processes to improve for next season.

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