



# Goat Management

## BREEDING SEASON

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Breeding season is a time of great potential for the goat producer. This is the time when the genetics are fixed for the next kid crop and all the expectations of the coming year begin. Because of this there are several steps that should be taken to insure success.

Several things should have already been addressed related to selection of animals. The doe herd should have been culled to remove poor performing animals after weaning of the previous kid crop, and new replacements selected that are ready to be bred.



The buck(s) that will be used should have been selected and ready to be placed on pasture. Any new additions to the herd should have undergone a receiving period and be out of quarantine before the start of the breeding season. Pastures should be ready and breeding pastures either not next to one another or separated by a good electric fence. Bucks will fight through even good fences to breed a doe on the other side, so be prepared.

### Breeding Information:

- Age at puberty
  - Bucks 5 to 8 months
  - Does 7 to 10 months
- Estrus Cycle
  - Length 18 – 22 days
  - Duration 12 – 36 hours
- Buck to Doe Ratio
  - Yearling 15 – 20 does per buck
  - Mature 20 – 40 does per buck
- Gestation period 5 months (146 – 155 days, average is 150 days)

### Preparing the Buck for Breeding:

The buck is very critical to the success of your breeding program. He contributes almost half of all the genetic material of every kid he sires and because of this contributes greatly to the quality of the next kid crop. This is why it is critical that you select good quality bucks that will move your herd in a positive direction. Bucks should be selected well before the start of the breeding season. Health issues exist with bucks and because they are generally the largest goats on the farm and often smell, they tend to be the last animals worked or, in some cases, are ignored.

Before the start of the breeding season you need to be sure to evaluate the bucks for body condition. Increase feed levels to insure bucks are in good body condition (body condition 2.5 to 3 on a 5 point scale) before the start of the breeding season. Also make sure that the bucks are receiving a good

quality mineral mix, free choice, that has adequate selenium (Se) and copper (Cu). If you are unsure of the Se status of the animals or have had problems with low conception rates, retained placentas or weak kids in the past you may want to give the bucks an Se shot a couple of weeks before the start of the breeding season. Research has indicated that Se has a positive effect on male fertility. The best way to take advantage of this is by providing a good quality mineral mix year round but the shots will help if you have had related problems.

Check the buck's feet and trim properly. Give enough time between trimming and the start of breeding for any soreness to heal. This allows the buck to move around the pasture better and he will



be more successful breeding. Because the buck smell is concentrated on the front legs it is recommended that you use gloves and a long sleeve shirt when handling these animals. Their hooves also tend to be larger than does so be prepared. Treat any signs of foot scald or rot. It may also be a good time to set-up and use a foot bath. A buck with a sore foot will not be as successful at breeding.

Parasite control is always an issue in goats. It is recommended that you check the bucks for parasites, both internal and external, and treat if needed. It is **not** recommended that you treat all animals at breeding so be sure to utilize a selective treatment procedure (FAMACHA or FEC) and deworm with an effective product when necessary.

In general it is not necessary to have a fertility test conducted on your bucks. First it is difficult to find

a veterinarian that will perform this service and many have indicated that fertility of the buck is seldom a problem. The libido or drive to breed is the major reason bucks are not successful in the breeding herd. The smell of a buck is one indicator that a buck is ready to breed. This smell will get stronger closer to the normal breeding season of shorter day length (July to December) and be reduced during increasing day length (January to June). Bucks that have no buck odor during September and October will most likely not be good breeding bucks. It is recommended that you utilize some type of breeding marker to help determine if the bucks are active. This is most often done by using a breeding harness or, less commonly, brisket pant.

Breeding harnesses are available from several sources and in different styles. The ones designed for sheep generally work for most goats. You may have some difficulty the first time you use a new harness design getting it to stay in place but most problems can be solved. The marker crayon is important; select a color that will show up well on your animals. There are different crayons for hot, mild, and cold temperatures. The difference is in the hardness of the crayon so you should select one appropriate for your breeding season. Hot types are for summer, through about August. Mild are generally used in fall and early winter while cold is generally used for winter breeding in Kentucky.

### **Preparing the Doe:**

Does need to have twins to be profitable and there are steps you can take to increase the chance for multiple births. The critical factors include nutrition and health of the animal. All does should be selected for fertility by only keeping replacements from multiple births, cull does on performance, including single births, and select for good udder structure and teats placement. Young does should be about 70 pounds before the start of the breeding season (60 – 75% of expected mature body weight) to increase success. You also need to check the does for body condition and they should be in good condition on average (BCS of 2.5 to 3 on a 5 point scale is desired). Does in condition 2 to 2.5 will respond to flushing. Flushing thinner does may

increase their chance to conceive but they are less likely to have multiple births.

If you plan to flush the doe herd you need to start four weeks before the breeding season and increase the quality of their diet. Energy feeds tend to have the greatest benefit; however, moving them to a very high quality pasture with good legumes can be as effective. The key is to have their body enter a positive energy balance in time to increase ovulation rate, thus increasing the chance of multiple births. Does in good body condition are already in this positive energy balance if on good quality forage so they generally do not respond as well to flushing.

The mineral balance of the doe is also important to her fertility. Make sure the does always have access to a good quality mineral mix with Se included. Kentucky is in a Se deficient region so we must include it in our minerals to insure animals receive enough in their diets. As with the bucks, if you are unsure of the Se status of the does or have had Se deficient problems, an Se shot a couple of weeks before the start of the breeding season may help with fertility. However, keeping a good quality mineral mix available to the doe herd year round is the best solution.

The doe herd should be checked for parasites, both internal and external, and treated as necessary. Selective treatment is recommended in goats to reduce the rate of resistance buildup by the parasites to the products we have available. You should also check and trim the feet of the does if needed. A foot bath to help treat any foot scald or foot rot may be helpful as well. If you don't plan to utilize a foot bath be sure to check and treat all does that show signs of foot scald or rot.

### **Breeding Pasture Management:**

It is important that the producer utilize good pasture management during the breeding season. Nutrition levels need to be maintained for the does and bucks to continue to breed successfully. Bucks, especially young bucks, will have a tendency to not eat and loose condition rapidly during the breeding season.

If the nutrition level of the pasture or feeding program is not adequate they may become infertile during the season, reducing conception rates. Watch for does that are not eating properly or are losing weight as well. Many producers mix groups at breeding so social structures are often disrupted.

It is recommended that producers utilize single buck breeding pastures. This is where a single buck is placed with a group of does. This allows better record keeping because you know who sired which kid. Bucks that are in rut, with does that are cycling, do not require competition to breed does. If you have two bucks in a pasture they will fight and may injure one another during breeding. If you use more than one buck, rotate the bucks between groups of does during the breeding season. You can move bucks every three to four weeks. This reduces the chance that a single buck will cause a total failure in one group of does. Kidding date is very effective in determining the sire in these situations. If you are a purebred breeder, you may consider pulling the bucks after 21 days and putting them back out 5 to 7 days later with a different group of does. The gap will provide a break in kidding to insure parentage for registration.



Monitor breeding activity in pastures through the use of the marking harness. You may wish to record does that were bred and ones that were bred a second time later in the season. When you change bucks change color of the marker to help determine if does are marked a second time. Some producers will change the color of the marker

weekly to help them remember who is marked when. This will help determine when does should actually kid so you are better able to manage kidding due to better records.

### **Post Breeding Management:**

After the breeding season it is important to maintain the nutrition level of the does for four weeks. During this time the newly formed fetus can be lost if nutritional stress becomes a problem for the doe. You should work all the animals again and check for any injuries that may have occurred during the breeding season. Mixing breeding groups back into larger herds can be stressful to all animals. This is especially a problem with bucks. Be sure to mix them slowly and allow time for them to establish their pecking order before adding new animals to

the group. Bucks that have been together before will still need to re-establish this order when turned back into a common pen. Bucks often loose weight during the breeding season so feed accordingly to improve body condition and make sure they are ready for the next breeding season and winter.

Watch for signs of problems and possible abortions post breeding. If you are unsure if all does conserved, you may want to have ultrasound pregnancy testing done. This can be performed at 45 days post breeding. You can then sort and manage your does based on pregnancy status. Culling open does is a very effective practice to reducing production cost because open does will consume as much feed as pregnant does but not produce any offspring to cover those costs.



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