

Reproductive Management in Goats and Sheep

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from Reproductive Management in Sheep and Goats from Alabama Cooperative Extension*

This is the time of year that most goat and sheep producers are gearing up or have already started their breeding season. This article will focus on some basics of goat and sheep reproduction and preparing for the breeding season.

Puberty is the time when an animal reaches sexual maturity for the first time. The ages range from 5-12 months in ewe lambs, 5-7 months in ram lambs, 7-10 months in doe kids and 4-8 months in buck kids. Puberty is influenced by age, body weight, nutrition, breed, and season of birth. For example, spring born ewe lambs usually exhibit puberty earlier than fall born ewe lambs. Lambs and kids born early in the season reach puberty earlier than those born late in the season because of increased age and body weight. General recommendations are that young does or ewes reach 60-75% of their estimated mature weight before being bred.

Estrus or heat is the time when the female is sexually receptive to the ram or buck. Goats and sheep are seasonal breeders and most breeding seasons are August to January. Lambs and kids will be born January to June. Some breeds can breed year round. The estrous cycle is the length of time from one heat period to the next and there is a difference in the length for does and ewes. The average cycle for a doe is 21 days with a range of 18 to 22 days. The average cycle for a ewe is 17 days with ranges of 14 to 20 days. Estrus will last from 24 to 48 hours in does and 24 to 36 hours in ewes. Ovulation normally occurs towards the end of estrus. Ovulation times for does are 24 to 36 hours from the beginning of estrus and for ewes it is 24 to 27 hours from the beginning of estrus.

There are signs of estrus that you can look for in your breeding herd or flock. A doe is restless, bleats, urinates frequently, wags her tail, may not eat, rubs against other goats, stands to be mounted, and may have a red, swollen vulva with a mucous discharge. Signs of estrus in the ewe are less noticeable than does. Ewes will seek out the ram and stand still for him to mount. Ewes may wag their tails, nuzzle the ram around the belly or scrotum and even try to mount the ram. Young ewes rarely exhibit these behaviors.

The gestation length or time that the ewe or doe is pregnant is an average of 150 days with ranges being 142-155 days. Maternal recognition of pregnancy in sheep occurs by day 13 following conception and by day 15 in goats. There is a difference in implantation of the embryo in goats and sheep. Implantation occurs by day 21 after conception in

sheep and by day 52 in goats. Implantation allows nutrient exchange and hormonal communication between the developing embryo and the uterus.

Timing of breeding depends on several things including the weather and how you market lambs and kids as the biggest two factors in our area. Weather can be a two fold concern. Heat stress from high temperatures and high humidity can affect fertility, embryo survival and fetal development. The first 30-45 days after fertilization is the most critical time due to implantation and this is the time when most embryonic mortality occurs. It is not just the female that suffers from heat stress, but rams and bucks are susceptible too. The fertility of males can be affected within days of exposure to extreme heat and may take 6-10 weeks before sperm quality returns to normal. Also there is a concern for the kidding and lambing season. Offspring born in January and February have a greater chance for freezing and getting frostbite. If you kid or lamb in colder months, make sure you have good facilities to house the newborns.

Some producers will plan their breeding season around when they want to sell or market their animals. Selling kids and lambs for specific ethnic holidays requires you to plan your breeding season in advance and knowing what your customer wants. For example, Easter is two weeks earlier in 2015 than it was in 2014 and it was three weeks later in 2014 than it was in 2013. So planning is critical to meet your target weights.

Male to female ration will vary with the age of the ram or buck. Yearling or two year old males are still growing and we generally recommend a lower ratio of 1 buck or ram to 15-30 does or ewes. Mature animals can service more animals and recommendations are 1 male to 35-50 females.

The body condition score (BCS) is important in both females and males. BCS is a term that describes if the animal has enough fat cover and is in good condition. The ideal BCS just before breeding is a 5 to 6 on the 9 point scale. Thin animals can fail to reproduce, have low twinning rates, and low weaning rates. Fat animals can suffer from pregnancy toxemia or problems birthing. Pay special attention to younger animals because they are still growing.

Contact your Livestock Extension Agent for more information on any of these recommendations.