



INNOVATIONS MAY HELP BOTTOM LINE FOR SMALL SHEEP, GOAT FLOCK OWNERS

Scott Cotton

Small flock owners or those starting out face higher costs per head than larger flock owners.

Each investment must make sense and be efficient whether just starting or maintaining a small flock. Often the investment level needed just to raise lambs, kids, or a fiber product is so overwhelming efforts wither on the vine. Most small flock owners are always looking for value-added income from their flocks. Let's look at specific areas.

Artificial Insemination and Synchronization

Getting females bred and then dealing with the labor efforts related to lambing and kidding are two of the largest challenges facing small flock owners. There must be an effective pregnancy rate for a good crop of newborns. Buying bucks and rams is expensive, followed by separate management efforts and space in the off-season. In the words of a retired grandmother raising sheep for income, "Sure you need several rams to get lambs, but what do you do

with the fellows the rest of the time?" Allowing breeding to occur without scheduling can generate huge labor and management challenges.

Another challenge for small flock owners is that many of them either work off-farm or would like to maximize time for something else. Using technology and innovation, a number of young central Wyoming producers have come up with some management answers.

Several have started synchronizing and artificially inseminating their small flocks. The process uses a commercial product to get ewes to ovulate within a short period, perhaps 18 hours, at which time the owner artificially inseminates them. Females that do not "take" are re-synchronized for three weeks later. Sheep have a 13-19 day estrus cycle with an average of 17 days, and goats have an 18-24 day estrus cycle that averages 21 days.

This approach has several significant advantages for small flock owners:

a. Owning and maintaining rams and bucks is less crucial,

- b. Synchronization of breeding leads to synchronization of lambing/kidding in an effort to have most of the lambing/kidding occur on a weekend if that's when you artificially inseminate. This allows for less interference with off-farm employment, and
- c. Small flock owners can purchase high-quality semen from rams they probably could not afford if buying a ram or buck.

The cost of this approach has been dropping, and some research indicates costs may get down as low as \$1.29 per sheep but is still averaging around \$20 to \$30 with equipment cost amortized over years (see the later segment on sharing resources). Bear in mind you still may need to have access to a ram or buck to cover ewes that were unsuccessful with AI. See related research at <https://agresearchmag.ars.usda.gov/2009/oct/sheep>.

Embryo Transplant

A number of innovative, beginning producers are implanting high quality embryos in other ewes. What's the point? It is possible to buy



several high quality ewes and then harvest some of their high quality embryos and implant them in less expensive mature ewes to carry the offspring to full term. The producer has a crop of high quality lambs with significantly lower ewe investment but can keep the ewe lamb crop for the future. This technique requires more training and professional assistance, but remember it is only being done for startup purposes in this case and yields a high-quality flock.

Night Feeding

Nanny goats and ewe sheep are very similar to most mammals in that they do not usually begin delivery labor if actively involved in nutrition intake and digestion. By feeding a flock in the evenings, they will tend to lamb or kid in the daylight most of the time. It is much easier to lamb or kid in daylight.

Controlling Predation

Small flocks often are managed on smaller parcels than commercial flocks. This smaller area provides them less escape and evasion opportunities than large ranches but is also easier to observe and inspect the flock. Unfortunately, predation

that occurs on small flocks is often by feral or free-roaming domestic dogs from nearby properties. Erecting and maintaining suitable fencing to inhibit dogs and other predators from approaching small flocks is important. Some small producers have found significant advantages to “penning” the flock in an enclosure within sight and sound of a manager’s home. Additional convenience can be provided by installing motion activated lights on the perimeter of the enclosure. Night feeding aligns well with night enclosure of small flocks.

Sharing Resources (shearing, grazing, transportation and labor)

Small flock owners have difficulty contacting and contracting shearers, finding and coordinating grazing leases, getting help for docking and lambing, marketing young animals, and other tasks normally done by large flock owners. The answer is to share resources including labor,

trucking, shearing, providing cleanup rams, marketing, and grazing.

In recognition of the need to connect with and help small flock owners, several groups, including members of the Wyoming Wool Growers Association, are looking into facilitating shearing days at central locations, setting up transportation networks, and providing access to fiber buyers and to lamb marketing cooperatives.

Last year, the Wyoming Wool Growers Association hosted its first shear day in Johnson County at which small flock owners could bring animals to the shearers and get a competitive price and access to a wool market.

It may be possible in the not-too-distant future to start with low quality ewes, develop a high-quality flock, breed and lamb on weekends and have access to a “team” approach to grazing, shearing, lambing, marketing and be dramatically more profitable. What ideas these are!



Scott Cotton is a University of Wyoming Extension educator based in Natrona County and also serving Converse and Niobrara counties. He can be reached at (307) 235-9400 or at secotton@natronacounty-wy.gov.