

## **Wilson County**

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## **News and Information from UT-TSU Extension Wilson County**

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## **Challenges of Parasite Control for Sheep and Goat Producers**

Sheep and goat producers know that the presence of internal parasites matter. They matter to growth rates, to reproduction, and to input costs. They matter to lamb or kid quality at the market, to health management, to feeding management and ultimately to the profitability of the sheep or goat operation. There are very few effective dewormers available due to resistance issues and new formulations are not coming to the market. Producers need to consider other options than relying on a dewormer to manage internal parasites.

Sheep and goat producers need to know their "enemy." Internal parasites are spread via manure. Livestock pass internal parasite eggs in their manure. These eggs then hatch and go through several larval stages until they reach an infective stage. This takes approximately six days. The infective stage larvae migrate to the leaves of plants and then consumed as the sheep and goats graze.

A rotation strategy can help to stay ahead of this cycle. The key is to subdivide fields so that the animals have enough to eat for four to six days then move to a fresh area. Fields can be subdivided using temporary fencing such as poly-wire or electric net fence. Most parasite larvae are found in the first two inches of forage growth, so the goal is to move the sheep and goats out of a field before they graze down to levels where parasite larva will be consumed.

A kink arises when some of the parasite larvae survive as long as 120 days. Survival is longer in cool and moist weather conditions and usually much shorter in hot and dry conditions. The challenge comes when producers have to balance between weather patterns and making rotation decisions..

Parasites have survivability mechanisms. Parasites can go into a dormant state inside sheep or goats when environmental conditions are unfavorable and remain in this state until environmental conditions improve. Sheep and goat producers often see problems when this occurs during the summer. This leads to a "bloom" of large numbers of infective parasites. Therefore, adequate rest periods need to increase to 65 days or more between grazings during the summer.

Multi-species grazing also contributes to breaking the parasite life cycle. While sheep and goats share many of the same parasites, cattle and horses do not. Cattle and horses grazed with sheep and goats help to break parasite life cycles because the sheep and goat parasites cannot survive in those other species. Sheep and goats can graze fields at the same time as cattle or horses, or they can graze in a leader-follower system. The leader-follower system allows one species to graze and then after an adequate rest period and forage regrowth, the other species grazes the field.

Another strategy is to consider the genetics of the sheep and goats. Producers should keep records that identify when they treat animals for parasites. Producers should cull animals that they consistently treat more often than most animals in the flock or herd. This allows producers to develop genetics that are more resistant to parasite infections. The parasites will still be present, but the animal's immune system can better withstand the infection.

Good pasture management as well as good selection practices can both lead to fewer parasite problems in sheep and goats.

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