

# THE BLEAT

*A UGA Extension Newsletter for Georgia Sheep and Goat Producers*



## **A Resource for Sheep and Goat Producers by UGA County Extension Agents**

*By Caitlin Jackson*

*County Extension Coordinator/ANR Agent  
Monroe County*

One area of livestock production that has seen steady increase in popularity in Georgia is that of sheep and goats. Flock size ranges from large to small and can be marketed in a variety of ways. Regardless of flock size, producers across Georgia routinely are faced with the same production challenges. To better equip sheep and goat producers of Georgia with the tools and knowledge to keep their operation profitable and sustainable, a group of UGA Extension Agents in middle Georgia are working together to provide these resources through publications, evening programs, and field days. We hope that this quarterly newsletter brings relevant information and resources to producers across the state.



**UNIVERSITY OF GEORGIA**  
**EXTENSION**

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## FAMACHA vs Fecal Egg Counts

*by Sarah Greer; ANR/4-H Agent, Crawford County*

The majority of my calls and visits dealing with sheep and goat producers are over parasite issues. A call about an unthrifty goat who was just dewormed top my lists. Without fail, I'll go out and see this animal or talk to the producer and even though they were just treated, it usually was not done correctly. The dewormer was either ineffective because of parasite resistance, the wrong dose was used or it was too late anyways. Small ruminants are prey animals. In nature, the second they look or act sick, they are picked off. The ones who hide the weaknesses survive. Once your animal starts to go down, it's usually already too late because they've been fighting this infestation for a long time.

The Southeast has all the requirements for small ruminant parasites to thrive. Our hot, humid summers and mild winters allow for the life-cycle to continue almost year round to create one of the most challenging problems in the sheep and goat

industry. Even though the peaches got enough chill hours this year, the winter lacked the long, deep freezes necessary to really kill the parasite cycle, so we probably won't get much of a reprieve.

A producer's toolbox of resources to manage parasites includes everything from rotating pastures and culling persistent carriers of parasites to bringing in new genetics and grazing on *Sericea Lespedeza*. With increasing resistance to our labeled anthelmintics, or dewormers, and nothing promising on the horizon, sheep and goat producers must fight parasites from all angles. Two particular tools, the FAMACHA system and Fecal Egg Counting, allow us to better target when to use these dewormers. When used together and frequently, producers can gauge the parasite load in their herds and slow the development of resistance.



## UPCOMING EVENTS

June 5th - Small Ruminant Meat Fabrication Field Day (FVSTU)

June 11th - Small Ruminant Nutrition & Reproductive Management (Pike County)

June 15th- Georgia Sheep and Wool

Growers Association Annual Meeting (Athens, GA)

August 1st - Deadline to register 4-H and FFA

Market Lamb and Market Goat Projects

**Cont. from page 2-**The FAMACHA system was developed in South Africa and is a visual test to check the mucous membranes – typically the inner eyelid of – of an animal to read their anemia level. The barberpole worm, our largest enemy in the war against parasites, attaches to the inside of the small ruminant's stomach and sucks blood. As the infestation grows, the animal loses blood, which gives their inner eyelid a pale appearance due to anemia.



The FAMACHA card, which has colors to represent 5 levels of anemia, is held against the inner eye lid so the producer can rank their animal's anemia level. During peak barberpole season (think warm and hot conditions), producers are encouraged to check animals each week. Be diligent about records and make note of any changes in an animal's levels. If a doe falls from a 5 to a 4 in one week, she may need some attention, but without accurate records this wouldn't be caught. To obtain a FAMACHA card, you must be trained by a FAMACHA certified trainer. Fecal egg counts are a bit more scientific in nature, but can be helpful in gauging parasite load in your herd. While some are intimidated by the procedure, it is relatively easy once you train your eye to differentiate between eggs, undigested forage and water bubbles. Fecal samples are mashed up and mixed with a floatation solution which allows the eggs to separate from the rest of the materials. After straining out the solids, the remaining liquid can be loaded into a McMaster slide, which can be viewed under a microscope to obtain that animal's egg count. Fecal egg counts are a snapshot in time and represent a sample of what we could expect the infestation to be like in the whole animal. Think of all the fecal matter your animal sheds all day! We are only testing 2-3 pebbles. These are particularly useful in testing if your dewormer is still effective on your farm.

A fecal egg count, treating and then another fecal egg count should show a lower number if the dewormer is working. One drawback to the FEC is that worms only start shedding eggs after a couple weeks. Immature worms can still be sucking blood, but not showing up in a fecal sample.

Both the FAMACHA and fecal egg counts have their strengths and limitations, but when used together, along with good record keeping, these tools give us an upper hand on managing parasite loads. The FAMACHA system is an accurate, in-field tool that allows producers to quickly assess parasite loads. Fecal egg counts are more labor intensive and require extra tools, but they help producers narrow down which parasites are present and if their dewormer is still working on their farm. When we make the educated decision to worm based on the evidence we can collect from these two methods, we are working to slow resistant worms and keep our dewormers effective.

For more information on running your own fecal egg counts, please see this extension publication from University of Arkansas at Pine Bluff -

<https://www.uaex.edu/publications/PDF/FSA-9608.pdf>

## KID'S KORNER



### Feeding Loose Minerals Over Block Minerals

Minerals are an important and necessary supplement for small ruminants. Mineral blocks and loose minerals are the main way minerals can be fed. In this article I will discuss why loose minerals should be utilized over mineral blocks. A mineral block is a block comprised of salt and trace minerals. Often the mineral content is so low that animals will not be able to obtain their required minimum. An additional problem is that a goat's tongues is soft causing them not to be able to lick the block like cattle. Therefore goats resort to biting the mineral block often resulting in dentition issues. Loose minerals are the better choice in mineral supplement due to the higher minimum levels of mineral. Loose minerals can be fed as a daily top dressing on their feed, or as a free choice supplement in a weather proof mineral feeder. If feeding goats and sheep together it is important to check copper levels as sheep are susceptible to copper toxicity.



*Article submitted by Monroe County 4-H'er Bethany McRae*

# WHEN DEWORMING IS NOT ENOUGH

Dr. Niki Whitley

*Extension Specialist, Fort Valley State University*

Animals that have a heavy parasite load are often compromised on several levels related to their overall health. If barber pole worm (*Haemonchus contortus*) is the primary gastro-intestinal parasite in the animal, loss of blood makes the animal weaker. Other worms may cause diarrhea which can result in dehydration. The animal may lose its appetite, so it loses weight and becomes even weaker due to lack of nutrition.

Depending on the status of the animal, supportive therapy may be needed around the time of deworming.

Animals that are a FAMACHA© 4 or 5 would likely benefit from removal from contaminated pastures to avoid reinfection and placement in a barn or other area for protection against additional environmental stress. Vitamin K results in blood clotting and could be a beneficial supplement to deworming. In addition, although not a cure, kaolin pectin or even human products such as Pepto Bismol® may stop or slow diarrhea to help reduce dehydration.

If the animal is "down" or extremely weak, immediate attention is needed. Electrolytes can be given to improve dehydration and perhaps provide some supplemental energy. Human products (i.e. Gatorade®, Pedilyte®) may be used as needed. Nutritional drenching supplements for quick energy should be considered, especially if the animal is not eating. Clean water along with high protein feed or forage that is very palatable (tasty) should be provided with easy access without much moving around if necessary.

If the animal is not eating, drenching (or tubing) the animal may be necessary until eating continues. Powdered protein supplements mixed in water with electrolytes can help keep the animal on track as well. Research has not been conclusive in the use of mineral supplements such as iron in recovery from parasites. However, anecdotal evidence from goat and sheep producers indicates that use of iron supplements such as injectable iron or oral iron, vitamin and mineral supplements (i.e. Red Cell®, Iron Power®, Perktone®) have greatly decreased recovery time from anemia. Normally, a change in FAMACHA© score takes a couple of weeks, but producers providing the supplements have claimed changes in a few days with severely anemic animals.

The ruminant gut makes B vitamins for the animal to use; GI tract disturbances seen in parasitism (or antibiotic use) may reduce Vitamin B availability, so supportive injections are often used. The B vitamins help with liver function and use of proteins and fat. Vitamins B12 and B9 (folate) are critical for red blood cell formation, so would be necessary for recovery from anemia. A concentrated form of B12 is available with a veterinarian prescription and might be warranted in extreme cases, but good Vitamin B complexes are available over the counter.

Supportive therapy along with effective deworming drugs may help to reduce mortality or decrease recovery time in sheep and goats. However, avoiding parasites completely would be even better. Contact your local county extension office or veterinarian to learn more about controlling gastrointestinal parasites in goats and sheep.



## AVOIDING HEAT STRESS IN SHEEP AND GOATS

**By: Caitlin Jackson, County Extension Coordinator/ANR Agent - Monroe County**

Summer is here, or at least it feels like summer is here. With temperatures soaring into the high 80's we are getting a glimpse of the long hot expected summer ahead of us. The high summer temperatures bring some unique challenges to small ruminant producers as "the struggle is real" to keep animals comfortable, productive and most importantly avoid heat stress.

Heat stress is caused by three environmental factors: humidity, temperature and air movement. Because we experience high humidity levels in Georgia, animals can be more prone to heat stress at lower temperatures than in areas with low humidity. There are three levels of risk of livestock

developing heat stress. Alert (75-80F) where heat stroke is possible and production will begin to decrease if not cooled off.

Danger (79-82F) where heat stroke is likely especially for animals in confinement with limited air movement. Emergency (83F or higher) where livestock should not be worked or moved and need to be cooled down or fatalities may be possible.

The two easiest way to ensure animal comfort and reduce the risk of heat stress is provide water and shade areas. Ensuring that your flock has access to cool fresh water will keep their core temperature down and also reduce risk of dehydration. Structures and shaded areas allow livestock an area to escape direct sunlight and slightly cooler temperatures.

Structures do not need to be elaborate and can be as simple as a carport.

There are additional management strategies that producers can also implement to reduce heat stress. If animals are in confinement air circulation is key. Fans can be used to blow cool air on animals but it is just as important to ensure that an air ventilation system is in place so that hot air is removed from the barn. Changing feeding times to evening can also aid in animals experiencing heat from digestion during cooler night temperatures. Producers should also take care not to handle livestock during extreme heat as movement leads to increased body temperatures. One important management tip for wool sheep producers is to make sure your sheep are sheared during the spring as research has shown that sheep with a one-inch fleece are more comfortable than sheep with less wool as the wool fibers dissipate heat more rapidly.



Summer heat can have negative effects on livestock production. However, by ensuring animal comfort and minimizing risk of heat stress, producers should be able to ensure that their flocks and herds stay healthy and productive throughout the summer months.

## POPULAR GOAT CUTS

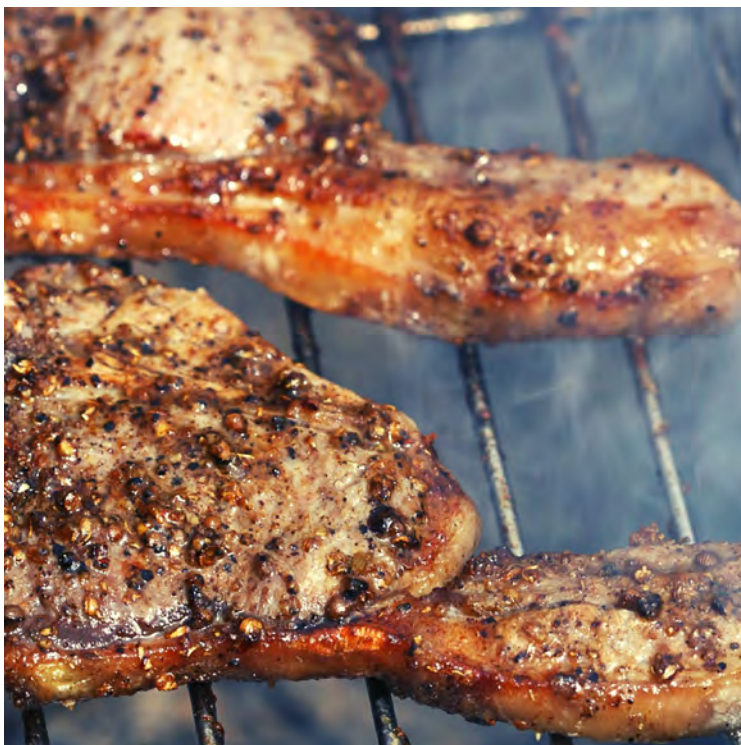
*By Hailey Robinson, ANR -  
Lamar/Upson Counties*

There are different meat cuts that can be taken from a fabricated carcass. Like a sheep carcass, goat carcasses are typically broken up into four sections or primals. These sections include shoulder, rack, loin, and leg. Each section is then broken down into smaller subprimals including breast, shanks, neck, short loin, etc. From there is where we get our individual roast, chops, ribs, etc.

We are going to break down each subprimal and list off the most popular goat cuts for our area starting from where they first accumulate fat. Some popular cuts from the breast include spare ribs and flank. From the shoulder we get bone-in shoulder roast, boneless shoulder roast, forequarter rack, and forequarter chops.

The rack usually consists of bone-in rib chops, boneless rib shops, whole rack, and half rack. The loin can be broken into a whole loin or a shortloin. This can consist of bone-in loin chops, boneless loin chops, tenderloin, and sirloin chops. Goat leg can be whole, halved, boneless, or leg steaks. Any meat not designated to a steak, roast or a specific cut, usually will go into trim that is used to make stew meat, ground meat, or sausage. There are other miscellaneous “cuts” including heart, kidney, and liver that may or may not be available from a local processor.

There are many ways to cook all of the cuts discussed, listed are some common ways: Slow cooking methods as braising, stewing and roasting. High heat and quick methods such as grilling, barbecuing, searing, and pan-frying.



### Grilled Goat Chops with Garlic, Oregano, and Lemon

#### Ingredients

- 6 large garlic cloves
- 1 medium onion, coarsely chopped
- 1/2 cup plus 2 tablespoons good tasting extra virgin olive oil
- Shredded zest of 2 large lemons
- Juice of 1 large lemon (about 6 tablespoons)
- 1/2 cup dry white wine
- 4 teaspoons dried oregano
- 1/4 teaspoon each salt and freshly ground black pepper
- 8 to 9 1-inch thick small rib or loin goat chops (lamb could be used as well)

#### Procedure

1. Allow 1-1/2 to 2 hours for marinating the meat. In a food processor or blender combine the garlic, onion, 1/2 cup olive oil, the lemon zest, lemon juice, wine, oregano, salt, and pepper. Process to just short of a puree. You want some small bits of rind, onion, and garlic. Pour the marinade into a heavy plastic bag or bowl, toss with the chops and refrigerate 1-1/2 to 2 hours.
2. To cook, drain the chops but do not wipe off the marinade. Heat the remaining 2 tablespoons of oil in a 12-inch straight-sided sauté pan over medium high heat. Arrange the chops in the skillet so they barely touch. Use 2 pans if necessary. Brown quickly on both sides. Then turn down the heat to medium-low and cook another 2 minutes a side, or until the chops are barely firm when pressed with your finger. They should be blushed with pink inside. Serve the chops hot.

# QUALITY PASTURE, THE KEY TO SUCCESS FOR GOATS

*Brooklyne Wassel, ANR Agent, Pike County*

Different forages can be planted and managed sustainably for year-round grazing. For goat pastures, several volunteer grasses, legumes, forbs, briers, vines, and shrubs can be managed in the pasture along with the planted forages because goats like variety in their diet. Several kinds of briers, forbs, vines, and shrubs that are generally avoided by cattle and other livestock species are readily eaten by goats. Furthermore, available woodlands can be used with appropriate fencing or developed into a silvopasture system if the situation permits to expand the grazing opportunity. When done appropriately, goat production based on year-round pasture can be more economical, time saving, and environment friendly compared to that based on seasonal pastures combined with supplementary feeding or sole stall feeding. However, the existing pastures of most of the goat producers, especially limited resource producers are low productive and dominated with seasonal perennial grasses.

Quality, productive year-round pastures offer goats plenty of forages to fulfill their nutrient requirements. It is always less costly when goats can harvest forages according to their needs rather than feeding them manually irrespective of the type of feeds because feeding involves the cost of feed, storage needs, and additional labor. Furthermore, feed quality can easily decline in certain storage situations and small scale producers often pay a premium for feed compared to larger operations which can lead to more expensive, less nutritious feed. When all of these factors are combined, developing a year-round pasture system is common sense.

Increasing the productivity, quality, and production duration of the existing pasture will provide a better feeding option and minimize the requirement of supplementary feeding. This will make the system economically more viable compared to that associated with low productive pastures. Also, when the pastureland is more productive, producers will be able to hold more animal unit per acre and augment their profits.

A well-managed system will have an enhanced soil quality and decreased opportunity for soil erosion. Incorporation and maintenance of legumes into the pasture system will replace the requirement of commercial nitrogen fertilizer application and enhance soil quality; this will save money and promotes land productivity in the long run. Incorporation and maintenance of legumes into pastures enhance the soil quality, promote healthy environment, and increase the long-term land productivity.

Well-managed year-round pastures minimize the chance of overgrazing and make the pasture system more sustainable. Overgrazing can inflict problematic effects on plants by repeated defoliation and trampling. Continued overgrazing of tall-growing forage generally weakens plants resulting in reduced root systems, lower forage yield, higher soil erosion and water runoff, and increased weed invasion. Besides minimizing the risk of overgrazing, year-round pastures will lower the costs of production and promote economic sustainability.

**QUALITY,  
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# Producer Spotlight

**CUD CREW**

**MARK VANDERHOOK  
MONROE COUNTY**

Mark Vanderhoek operates Cud Crew, a flock of Gulf Coast Sheep that provide targeted grazing and weed management for everyone from home owners to solar facilities. The business has been in operation since 2015 and has worked across middle Georgia. The operation is now housed in Blount, Georgia with 50 head of sheep.

The operation also sells lamb, wool and breeding stock and has plans for a major herd expansion to fully utilize the 80 acres of pasture it currently leases, including the addition of cattle (farm side only) and hair sheep to create more solar grazing opportunities.

Mark and Jill, his wife of 18 years are co-owners of the business and have 3 daughters, Dulcie, 9, Cordelia, 6, and Louisa, 2.

*To contact Mark for more information about his operation his phone number is 478-258-6202*



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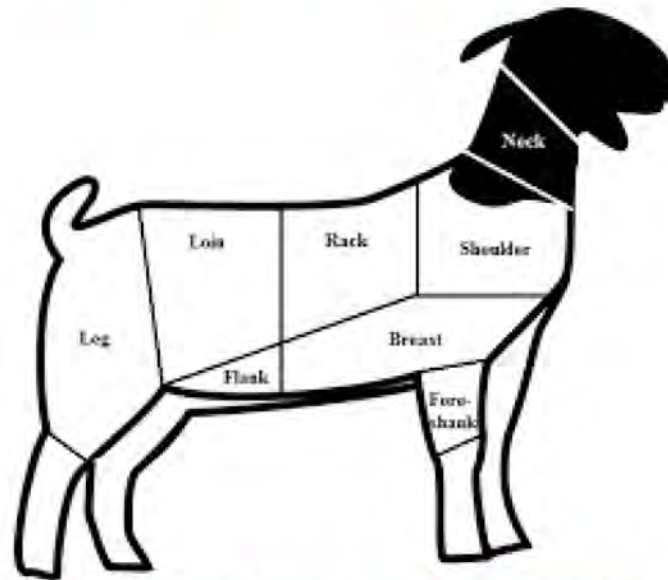
**The Cud Crew clear  
land in an efficient and  
sustainable way.**

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# MIDDLE GEORGIA SHEEP AND GOAT FABRICATION DEMONSTRATION



## Topics to be Covered

Harvesting and Fabrication of Carcasses

GATE Card

Regulations on Selling Meat

Factors Affecting Carcass Quality

**June 5th, 2019**

**8:30AM-1:30PM**

Fort Valley State University's Meat Technology Building

Toomer Lane, Fort Valley

\$20 registration fee, lunch and educational materials included

Space is limited, so RSVP by May 29th by calling (478) 836-3121 or emailing [sarah.greer@uga.edu](mailto:sarah.greer@uga.edu).

# Contributing County Agents

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