WINTER 2021 VOL. 10

THE BLEAT

A UGA Extension Newsletter for Middle Georgia Sheep and Goat Producers

Ready or Not, Here Comes 2022!

By Caitlin Jackson
County Extension Coordinator/ANR Agent
Monroe County

2022 is right around the corner and just like that we've survived another trip around the sun! Often the end of the year makes one reflect over accomplishments and short falls from the previous year and what new goals should be a priority in the new year.

In this issue of the BLEAT we are following the same format: a little reflection of this past years successes and improving production (and profits) for 2022.

IN THIS ISSUE

UNIVERSITY OF GEORGIA EXTENSION

FVSU extension
Knowledge for Inspiring Lives!

MASTER SMALL RUMINANT

A NEW UGA EXTENSION SERIES FOR SHEEP AND GOAT PRODUCERS

Over the last ten years the United States has experienced increases in Hispanic and Muslim populations resulting in increased demand for lamb and goat meat. To meet the increased demand, Australian lamb and goat meat have dominated import markets in the U.S. to the point where American lamb and goat meat are nearly impossible to find in local meat cases. Despite increased demand from ethnic markets and the “foodie” movement of individuals who are excited about lamb and goat meat as alternative proteins, the United Stated Department of Agriculture reported a one percent decrease in ewe and doe inventory. One reason cited for the decreasing small ruminant population is the challenges associated with production. There are many challenges specific to sheep and goat producers in the Southeast. However, with education and proper management small ruminant operations can become profitable and sustainable long term.

To meet the production education needs of small ruminant producers in middle Georgia Caitlin Jackson, Monroe County Agriculture and Natural Resources Agent and Hailey Partain, Upson/Lamar Counties Agriculture and Natural Resources Agent, created the Master Small Ruminant program. This six session intensive series included lecture sessions on basic production schedules, reproduction, lambing and kidding, forage management, predator control, marketing, parasite management. In addition to the lecture sessions there was a capstone Saturday field day where participants handled sheep and goats in a safe environment to better understand low-stress handling techniques, hoof trimming, body condition scoring, record health data points, ear tagging, utilizing herding dogs, and practice FAMACHA scoring and obtain their certification.

LECTURE SESSIONS

Class One - October 12, 2021

Topics: Forage Management and Grazing Systems

Class Two - October 14, 2021

Topics: Herd Health

Class Three - October 19, 2021

Topics: Reproduction and Kidding

Class Four - October 21, 2021

Topics: Marketing, Selling Locally, and Processing

Class Five - October 26, 2021

Topics: Parasite Management and Fecal Egg Count

Class Six - October 28, 2021

Topics: Insect Management and Predator Management

FIELD DAY

The field day agenda included a sheep dog herding tutorial, showing exhibition, equipment demonstration, ear tagging, FAMACHA certification and concluded with learning to use the sheep working facility and roll cage to ear tag the flock of sheep.

A BIG THANK YOU TO UPSON COUNTY LIVESTOCK AND ROCKY BRANCH RANCH

"It has been said that it takes the income from two productive females to make up for what carrying one open (non-pregnant) female through the year costs a producer. "

PREGNANCY DETECTION IN SHEEP AND GOATS

Dr. Niki Whitley, Fort Valley State University

Finding out if ewes or does are pregnant can help determine if there are fertility problems in your flock/herd (i.e. ram/buck problems or reproductive disease/nutrition issues) and allow for developing a plan to overcome those problems. It can also help with planning for lambing/kidding. If you purchase a female with unknown pregnancy status, a pregnancy test may be in order.

Methods for pregnancy detection can be as easy as watching for return to estrus which may be easier for goats than sheep since goats tend to show estrus more than sheep. If the doe is vocalizing a lot, flagging her tail, has a swollen vulva, urinates with the smell of a male around 21 days after breeding or stands to be mounted (by other females or a male), that is a good sign she is not pregnant. Ewes show fewer signs of estrus in general, though a swollen vulva, more activity, standing to be mounted by a male, and urinating with the smell of a male around 17 days after breeding could indicate no pregnancy.

A ram or buck might be used with an (anti-) breeding apron to check for return to estrus/heat. The piece of material is fastened around the girth area behind the front legs, hanging down so he can't penetrate the females for breeding but he can mount to show if they are in estrus/heat.

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There are lots of different types of aprons available (online), or homemade ones can be used. A marking harness on the male could be used with it so those in estrus are marked with the crayon marker when he mounts, making it easier to check the whole flock/herd.

Another method is ultrasound. There are simple ultrasound machines that give a sound if pregnant (inexpensive in comparison, but not as accurate) and the ones that give a visual representation (real time ultrasound, B-mode). It is best to wait until at least 32 days after breeding (or removing the male) before attempting ultrasound (and rectal detection may be best at this time). Waiting until later (60 days) allows for scanning from the slick part of the belly instead.

An experienced technician is needed to use the equipment and interpret the images for ultrasound. The number of lambs or kids may be determined with this method, depending on the stage of pregnancy and experience of the technician.

Real time ultrasound equipment can be quite expensive, especially for those units with lots of bells and whistles and with different probes/transducers. However, advancing technology has made some units available for less than $1000.

Some veterinarians may be able to do it for a reasonable price per animal if they already have the equipment for other species.

Taking a blood sample from the doe or ewe and sending it off for pregnancy detection is a more recent method, though even that has been around for at least 10 years. It is quite easy to take a blood sample from a sheep or goat, or you can ask your veterinarian.

The blood tests measure either progesterone or a specific pregnancy hormone. For open animals, they are extremely accurate, but less so for pregnant animals (i.e. 5% or so animals testing positive may be open). Examples of tests for specific pregnancy hormones include BioPRYN® and Altertys®/IDEXX (available at animal testing labs in GA for sheep and goats).

There are cattle pregnancy tests for milk progesterone that have been used in goats successfully in on-farm testing (by Dr. Whitley) following the cattle guidelines. Because progesterone can be high in open animals during specific times of the cycle, care has to be taken to follow the directions for any progesterone-based test (milk or blood). Recently, a cattle-side blood pregnancy test was developed by IDEXX (Alertys®) and was used successfully at FVSU for cattle. It is not labeled for other species yet (though the same hormone is used for their lab-based test), but hopefully they will work on getting it available for sheep and goats soon.

Of course, waiting until you see them bag up is a sure sign of pregnancy, but that could be costly since it is likely too late by then to do anything about it if they are not pregnant. It has been said that it takes the income from two productive females to make up for what carrying one open (non-pregnant) female through the year costs a producer. If the whole herd or flock is open, it can be devastating if not detected early enough to re-breed.

For more information, contact your local county extension office, Dr. Niki Whitley at whitleyn@fvsu.edu, or your veterinarian.

HAY PURCHASES

DON'T GUESS, TEST!

Shanna Reynolds | Oglethorpe County

As we move through the hay feeding season, what considerations are you giving to hay purchases? If shopping for a new tractor, a farmer wouldn't just buy because it looked nice. They would do research and ask questions. Adequate nutrition is essential for weight gain, milk production, reproduction, and overall profitability in a livestock operation. Don't let such an important decision rely solely on how a bale looks or smells. No one can determine the quality of hay by physical evaluation alone.

If you have ever thumbed through the Market Bulletin hay for sale ads, you have likely wondered what all the hay descriptions mean?

The marketing tactics used for hay can leave your head spinning. What makes something "horse quality," and what makes the $9 per square bale bermudagrass better than the $5 per bale stuff? If someone says their hay was "fertilized by UGA test recommendations" does that increase its quality? Is first, second, or third cutting best?
Your hay purchase should be determined by what nutrient requirements your animals have. Livestock in various stages of production have vastly different nutritional requirements. Moderate quality hay can be used for animals in maintenance (ex: dry females and mature males not currently breeding). Growth, reproduction, and lactation will all require additional energy.

The only way to match the energy and other nutritional aspects of hay to the right animal is to have a laboratory analysis of hay you purchase. Putting all the buzz words aside, here are a few factors that ACTUALLY influence forage quality:

1. **Plant Maturity** at harvest is the most important factor determining forage quality. Early in the growing season, plants are in a vegetative stage with high concentrations of starch, sugar, proteins, and minerals. As the growing season advances, plants begin to develop elongated stems and seed heads with a higher proportion of fiber.

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Subsequently, the digestible portion of the plant decreases. Maturity also influences the rate at which an animal can consume the forage. The number of days since the last cutting can be treasured information in hay shopping.

2. **Forage Species and Variety** also play large roles in the final quality of a hay product. Legumes generally produce higher quality forage than grasses. Within a species, there may be large varietal differences. For example, not all bermudagrass is equal. Tift 85 will produce more quantity and quality if managed in comparable conditions to common Bermuda.

3. **Bale Storage** should never be overlooked when hay shopping. Bales should be protected from weather. Significant loses to substance and quality occur over time with exposure to the elements.

4. **High Moisture** content in hay can lead to quality loss and mold danger. Various mold species can present safety concerns for livestock and should obviously be avoided. Not to mention the fire dangers associated with storing high moisture hay in a barn. Round bales of hay should be dried to 15% moisture before baling and square bales to 18%.

5. **Fertilization** has limited effect on the final product's quality. More nitrogen fertilization can equate to higher protein in a sample, but has not been found to increase digestibility. Fertilization by soil test is certainly recommended for the hay producer from a growth/quantity perspective, but should not be strongly considered by a hay customer.

In conclusion let me ask, which of the factors listed in this article are visible when purchasing hay? Very few of them. Don't guess at the quality you are getting. Have your hay tested. Tests are around $25 through most UGA Extension offices. That's very inexpensive compared to feed waste or animal mortality. Make smart hay investments and don't hesitate to contact your local Extension office for help. Agents can advise on what is needed for the class of animal you have to feed and where you may be able to find appropriate hay for sale.

THE DEER WORM (MENINGEAL OR BRAIN WORM) IN SHEEP AND GOATS

DR. NIKI WHITLEY, FORT VALLEY STATE UNIVERSITY

There are several names for the roundworm, *Paralaphostrongylus tenuis*, including meningeal worm, deer worm or brain worm. This internal parasite of white-tailed deer does not usually cause significant problems in its natural host, but when it gets into sheep or goats, it can cause major problems.

The life cycle of the meningeal worm is indirect in that it includes snails or slugs as an intermediate host that passes along the infective larval of P. tenuis. When sheep or goats ingest the snails or slugs as they are grazing, the larvae migrate through the gut and into the spinal cord and/or brain. The worm cannot complete its lifecycle in sheep or goats, so they do not spread it, but the larvae wander through spinal cord causing damage.

The number and location (in the central nervous system) of the larvae will determine symptoms. Animals may show a limp or weakness, could become partially or completely paralyzed, may exhibit blindness, a head tilt circling, anorexia, or other neurological symptoms. It can be fatal.

The animals could get worse, stay the same or get better without treatment (high, repeated doses of deworming drugs, steroids and other supportive therapies). Treatment protocol information can be found at: https://blogs.cornell.edu/smallruminantparasites/chemical-treatment-protocols/, but producers who suspect infection based on symptoms/clinical history (the only way to diagnose in the live animal) should contact their veterinarian for recommendations/treatment. However, please note that there are a variety of diseases/disorders that could cause similar symptoms, including rabies, listeriosis, CAE, scrapie, deficiencies of Vitamin B (polioencephalomalacia), Vitamin E/selenium or copper, and spinal cord or brain trauma.

Prevention is better than trying to rely on treatment, but that can be tricky since that includes reducing deer populations/use of sheep and goat pastures. Controlling the snails/slugs or exposure of sheep and goats to them by fencing out low-lying, wet areas, ponds, swamps, etc. may be more helpful. Overuse of deworming drugs as a preventative can cause increased problems with drug resistance in worms that are an even greater problem for sheep and goats, such as *Haemonchus contortus*, or the barberpole worm.

Resource: www.sheepandgoat.com/deerworm

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Larvae are able to travel 2-3 inches up the plant but could travel further under ideal conditions. In areas where fecal matter accumulates (near water & feed sources or shade) or where pastures are overstocked, parasite density will be high. When conditions are moist and warm, larvae will be more prevalent. In dry conditions, larvae stay close to the soil surface where there may be enough moisture to survive.

Understanding these concepts helps provide some important strategies to help manage pastures to reduce parasite pressure.

- **Do not overstock or overgraze** – Overstocking pastures results in a variety of issues. Related to parasite management, overstocking will ultimately lead to shorter forages to graze and increases the likelihood of animals ingesting parasites. Maintain a healthy grazing height of your forages and work with your Extension Agent to balance your animal stocking rate with available forages to reduce grazing pressure.
- **Rotate Pastures** - Rotating livestock through different pastures helps to reduce parasite pressure by removing animals before parasite eggs hatch and larva are ingested. For example, the complete lifecycle of *H. contortus* can be about 3-6 weeks, with the time of egg drop to larvae hatching within 4-5 days. If livestock are allowed to graze in a paddock for 3-4 days, and then rotated to another paddock, this keeps the animals from continuing to ingest parasite larvae. If conditions allow, keeping the livestock off that original pasture for 4-6 weeks can allow the parasite larvae to die and the pasture to be "clean" of the parasite larvae that originally hatched. The length of time it takes for parasite eggs to hatch and larva can depend greatly on temperature and moisture conditions. Parasites eggs can sit idly for a long period of time until conditions are favorable. While a lifecycle of 3-6 weeks is realistic during a humid summer in Georgia, that time could be extended by months during drought or cooler times of the year. To ensure that a pasture is totally "clean" of parasites, it should not have been grazed by livestock for 12 months, or the ground has been prepared for planting of a crop or utilized as a hay field.
- **Consider Mixed-Species Grazing** – As mentioned earlier, many common internal parasites are host-specific. This means that cattle can help "break" the cycle for sheep or goat parasites by ingesting them but not providing an environment where they will reproduce - the same is true for cattle and horses by bringing in sheep or goats. You can graze mixed species simultaneously, or alternate livestock species to achieve the same purpose. Grazing different livestock species can also achieve the goal of better utilization of different forage types and improved "weed" control.
- **Incorporate Improved or Alternative Forage**s – Utilizing different forage crops such as legumes or summer annuals can provide higher quality forages that improve the nutritional status of animals which helps reduce stress of internal parasites and also can provide a situation where parasites populations aren't as prolific (prepared seed bed for annual crops, taller crops that larvae can't utilize, etc.). Other crops are considered "bioactive," meaning they can provide a medicinal effect against parasite infestation. These crops include chicory and sericea lespedeza, and are especially helpful for sheep and goat producers.

As much as any other tool, good pasture management can help be the difference in maintaining a healthy flock free of heavy parasite loads. Coordinating with your veterinarian and Extension Agent on ways you can strategically manage your flock and forages will quickly pay off.

A FOUR PART SERIES ON HARVEST METHODS: ELECTRICAL; STUNNING OR SLAUGHTERING WITH ELECRIC CURRENT

Hailey Partain | Upson & Lamar Counties

There are four ways approved by Georgia Department of Agriculture (GDA) and United States Department of Agriculture (USDA) to render an animal unconscious. Regulations for all of these ways can be found on the GDA website under; Code of Federal Regulations, 9 CFR, Chapter III, Part 313.

The fourth option is § 313.30 Electrical; stunning or slaughtering with electric current.

§ 313.30 Electrical; stunning or slaughtering with electric current.

The slaughtering of swine, sheep, calves, cattle, and goats with the use of electric current and the handling in connection therewith, in compliance with the provisions contained in this section, are hereby designated and approved as humane methods of slaughtering and handling of such animals under the Act.

(a) ***Administration of electric current, required effect; handling.***

(1) The electric current shall be administered so as to produce, at a minimum, surgical anesthesia, i.e., a state where the animal feels no painful sensation. The animals shall be either stunned or killed before they are shackled, hoisted, thrown, cast, or cut. They shall be exposed to the electric current in a way that will accomplish the desired result quickly and effectively, with a minimum of excitement and discomfort.

(2) The driving or conveying of the animals to the place of application of electric current shall be done with a minimum of excitement and discomfort to the animals. Delivery of calm animals to the place of application is essential to ensure rapid and effective insensibility. Among other things, this requires that, in driving animals to the place of application, electrical equipment be used as little as possible and with the lowest effective voltage.

(3) The quality and location of the electrical shock shall be such as to produce immediate insensibility to pain in the exposed animal.

(4) The stunned animal shall remain in a state of surgical anesthesia through shackling, sticking, and bleeding.

**(*b) Facilities and procedures; operator*

((1) General requirements for operator. It is necessary that the operator of electric current application equipment be skilled, attentive, and aware of his or her responsibility.

(*2) Special requirements for electric current application equipment.* The ability of electric current equipment to perform with maximum efficiency is dependent on its proper design and efficient mechanical operation. Pathways, compartments, current applicators, and all other equipment used must be designed to properly accommodate the species of animals being anesthetized. Animals shall be free from pain-producing restraining devices. Injury of animals must be prevented by the elimination of sharp projections or exposed wheels or gears. There shall be no unnecessary holes, spaces or openings where feet or legs of animals may be injured. Impellers or other devices designed to mechanically move or drive animals or otherwise keep them in motion or compartmentalized shall be constructed of flexible or padded material. Power activated gates designed for constant flow of animals shall be so fabricated that they will not cause injury. All equipment used to apply and control the electrical current shall be maintained in good repair, and all indicators, instruments, and measuring devices shall be available for inspection by Program inspectors during the operation and at other times.

(3) Electric current. Each animal shall be given a sufficient application of electric current to ensure surgical anesthesia throughout the bleeding operation. Suitable timing, voltage and current control devices shall be used to ensure that each animal receives the necessary electrical charge to produce immediate unconsciousness. The current shall be applied so as to avoid the production of hemorrhages or other tissue changes which could interfere with inspection procedures.

All federal and state inspected facilities must follow these regulations and get evaluated periodically.

AMERICAN SHEEP INDUSTRY UPDATES

- **Convention Registration Deadlines Approaching** - The deadline for the early bird registration discount for the 2022 American Sheep Industry Association Annual Convention is Dec. 31. Attendees also need to book hotel rooms at the Sheraton San Diego Hotel & Marina by Dec. 29 to receive the guaranteed room rates. Online registration for the convention will close at 5 p.m. mountain time on Jan. 7, 2022, and all registrations after that point must be done onsite in San Diego.
- **ASI Wool Council Offers Shearer-Mentor Grants** - The grant is open to developing shearers and their mentors (those who are helping train them). Developing shearers will receive $500 at the beginning of the program to help them with equipment and/or to supplement their work when they are shearing a low number of head each day. Developing shearers will then receive $1,000 upon completion of the program, which includes sending videos of their progress and a written summary. Mentors will receive $1,500 upon completion, which includes a written summary and documentation of how they assisted the developing shearer.
- **USDA/NASS Surveying Sheep & Goat Inventory** - Starting in late December, the U.S. Department of Agriculture's National Agricultural Statistics Service will measure sheep and goat inventories and wool and mohair production through a nationwide survey. To make it as easy as possible for producers to participate in the survey, NASS offers the option of responding online, by telephone or by mail. The results of this survey will be available in aggregate form only, ensuring that no individual operation or producer can be identified, as required by federal law. NASS will publish the survey results on Jan. 31, 2022, in the Sheep and Goats report. *Click here to respond.*

THE AMERICAN SHEEP INDUSTRY ASSOCIATION IS PROUD TO OFFER THIS MONTH'S ASI RESEARCH UPDATE PODCAST:

COPPER 101
WITH DR. DAN MORRICAL OF PREMIER 1 SHEEP SUPPLIES

THE ASI RESEARCH UPDATE PODCAST FEATURES INDUSTRY EXPERTS SHARING RELEVANT SHEEP PRODUCTION PRACTICES AND RESEARCH PROVIDING AMERICAN SHEEP PRODUCERS ACCESS TO A WEALTH OF INFORMATION ON MANAGEMENT, PRODUCTION AND RESEARCH TOPICS TO BENEFIT THEIR OPERATION.

CLICK HERE TO LISTEN TO THE PODCAST

Merry Christmas
And Happy New Year

As a reminder, your local County Extension Office will be closed from Christmas to New Years Day.

FANTASTIC LAMB RECIPES

PESTO LAMB PROSCIUTTO CUTLETS

by Chef Not Required

Ingredients

- 12 lamb cutlets - fat trimmed
- 1 1/2 tbsp. basil pesto
- 2 slices prosciutto

Directions

1. Cut each slice of prosciutto in half lengthways, and set aside.
2. Roughly coat both sides of each cutlet with pesto.
3. Take one half-slice of prosciutto and wrap around the meaty end of one cutlet - the prosciutto will overlap.
4. Repeat for remaining cutlets and prosciutto slices.
5. Heat a large frying pan over medium heat, and fry cutlets for 3 - 4 mins, then turn and fry for a further 3 - 4 mins or until cooked to your liking - see note from my sous chef (my husband Peter!).
6. Serve immediately.

PREPARATION: 10MIN
COOKING: 10MIN
READY IN: 20MIN

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