

# THE BLEAT

A UGA Extension Newsletter for Middle Georgia Sheep and Goat Producers



## Spread the Love of Lamb During #LambLoversMonth

By Caitlin Jackson

County Extension Coordinator/ANR Agent  
Monroe County

Beef, chicken and pork are all proteins that majority of Americans consume and cook regularly. Can we really say the same about lamb or even goat? Before the pandemic the answer would probably have been no. However, the pandemic has done something interesting for the sheep industry. As meat cases emptied of beef, pork, and chicken products the items that were left were lamb and the "fake meats". Given the option between the two, it's not surprising that consumers chose lamb. While not an ideal way to get onto the American dinner plate, this is an opportunity that the lamb industry can take advantage of. For the last several years the American Lamb Board has promoted February as #LambLoversMonth with sweet giveaways and amazing recipes. For February 2021 let's make this the best #LambLoversMonth as more Americans than ever are eating and cooking lamb!

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# LAMB AND KID CARE

**DR. NIKI WHITLEY, FORT VALLEY STATE UNIVERSITY**

Proper care of lambs and kids starts before birth with proper vaccination and nutrition of the dam (mother). Ewes and does should be at a body condition score of around 3.5 to 4 at the time of birthing and should be provided with vaccinations 2-4 weeks prior to giving birth. The common vaccine recommended for sheep and goats is CD&T ([www.sheepandgoat.com/cdt](http://www.sheepandgoat.com/cdt)), Clostridium perfringens type C&D and tetanus, but others may be warranted for individual farms based on consultation with a veterinarian.



Vaccination and proper feeding of the dam allows for suitable colostrum (first milk) to be produced. The antibodies in the colostrum will help to protect the offspring until they can be vaccinated and produce their own antibodies. Proper nutrition also helps the offspring to be born strong and healthy so they will get up, nurse and ingest enough colostrum in the first 24 hours of birth to stay strong and healthy.

If birthing is attended, help can be administered as needed and the offspring cleaned off if bonding with the mother would not be impeded. The offspring should be watched to ensure all get up and nurse in a timely manner - that the mother and lambs/kids are bonding. The naval cord is clipped 1-2" from the body and the naval dipped in iodine disinfectant (at least 2%) to help prevent infection. Birth weight should be recorded.

For animal welfare reasons, tail docking (lambs only) and castration is recommended at 1-7 days of age. For unvaccinated dams or lambs/kids with questionable intake of colostrum and not yet vaccinated, a tetanus antitoxin should be used at docking/castration.

For castration, some breeders/owners (of pets, show wethers or dwarf goats) may choose to wait until 4-5 months of age, due to an assumed greater...

## TAGGING TIPS

- Tag as lambs or kids
- Don't tag in fly season
- In humid climates, tag in the winter
- Don't tag too close to the head
- Tag when the ear is dry and clean
- Use smaller tags
- Avoid metal or round tags
- Apply an antibiotic, fly repellent and/or a disinfectant to the ear or tag

In order to reduce infection related to ear tagging sheep and goats, the following guidelines (summarized) were provided by Premier1 (no endorsement intended; reference: [www.premier1supplies.com/w/ear-tag-infections/](http://www.premier1supplies.com/w/ear-tag-infections/)):



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...susceptible to urinary calculi, though with proper feeding and free choice access to fresh, clean water, this situation can generally be avoided regardless of age at castration. Late castration (3 months of age or more) can be very painful, may be more likely to result in infection and can reduce growth rate, so a veterinarian should do the procedure. Castration may not be needed at all for commercial production if males can be easily separated from females by four months of age and the market/buyer does not mind purchasing intact males.

The lamb or kid should be identified around the time of birth in some manner so that records of dam and offspring performance can be collected. Ear tags, tattoos or, for kids, even ear notching can be used. There are many different types of tags that can be used – plastic (light colors with black writing are easier to read) blank or pre-numbered, loops, one piece, or two piece, metal loops and/or RFID (radiofrequency identification).

As with tail docking and castration, if the dam did not receive tetanus vaccination prior to giving birth, the offspring did not ingest enough colostrum, or the offspring are five weeks of age or older and were not yet vaccinated themselves, use of a tetanus antitoxin might be considered when tagging.

Research published in *Veterinary Record* indicates that metal loop ear tags resulted in more infection than others tested in sheep (Edwards and Johnston, 2016).

Label directions should be followed for vaccinations, including giving two shots 2-4 weeks apart for 'priming' the immune system so the following yearly boosters will be effective.

For CD&T, early research indicated that booster injections twice a year for goats may be beneficial. The CD&T booster prior to heavy feeding or any stress is also usually recommended.

Providing a creep area/creep feed starting at 10 days of age (or younger for orphans) can help lambs or kids grow better, especially if part of a litter or 2 or more, and can reduce strain on the dam by supplementing her milk production. Creep feeding, or providing feed (grain, hay and/or pasture) to offspring that the adults cannot access, especially with a high protein ration, can also reduce the impact of gastrointestinal nematodes on grazing offspring (Ayardes de Melo et al., 2017). However, the overall profitability of the use of creep feeding depends on the cost of the ration used, benefits seen and the market price of the offspring.

Feeding offspring may be different for different production systems. Those pushing growth will want to provide the protein and energy requirements suggested by the NRC (National Research Council, *Nutrient Requirements of Small Ruminants*, 2007) for high gains given the breed/type and age of the animals being fed. In general, younger lambs and kids require high quality diets with high nutrient content.

As lambs and kids age, the nutrient content levels can decrease as the amount of feed they can eat increases, but up to a year of age, they are still growing and still susceptible to gastrointestinal parasites, so proper nutrition is critical. An Extension agent or specialist can help you design a diet for your animals or help you identify someone who can.

# RAISING ORPHANED LAMBS AND KIDS

by Shanna Reynolds | Oglethorpe County

If you raise sheep or goats long enough, you will inevitably end up with an orphaned baby. You may have multiples born to one mother without enough milk for all of them, a dam that rejects her young, or a mother die due to complications with birth. I've even heard of startup farmers buying bottle babies as an inexpensive way to add breeding animals to their herds, although it is rarely economical to feed a bottle baby for any reason. Whatever unexpected events come to your flock, it's important to know how to raise orphaned kids and lambs as economically and safely as possible.

Whenever possible, you should try to graft orphaned babies onto another mother. This may be an option when several females give birth near the same time and one dam is only raising a single kid. You can attempt to graft a newborn that has been rejected or is a triplet or quad onto the mother of the single. Grafting decisions should be made as soon as possible after the birth. The process becomes more difficult as time goes by. If grafting to a mother who has recently given birth, rub the orphan in her birthing fluids and afterbirth so it smells like her own lamb. If a bottle raised baby is with many other mothers and babies, it may steal enough milk to raise itself.

With any feeding method, monitor orphans' growth to ensure they are receiving enough milk.

Without question, one of the most critical components of caring for newborn farm animals is ensuring they ingest colostrum. Colostrum is the first milk produced by mammals when they give birth. It is rich in antibodies for disease resistance as well as other essential nutrients. It also plays an important role in preventing newborn hypothermia. Colostrum can be milked from a doe or ewe that kidded in the last 18 hours. If none is available, use frozen colostrum from goats or cows. Synthetic colostrum replacers are available as a last resort. A newborn should receive 3 ounce of colostrum per pound of body weight during the first 24 hours. This can be divided into 3 or more feedings. So for example, a 7 pound lamb or kid would get 7 ounces of colostrum 3 times. You can also divide into more frequent feedings. For example, a 7 pound baby could get 5 feedings of 4-5 ounces each in the first 24 hours (still around 3 ounces of their body weight in the first 24 hours). If too weak to nurse, you must provide the colostrum by tube feeding directly into the stomach. Chance of survival decreases drastically without colostrum.



**"WITHOUT QUESTION, ONE OF THE MOST CRITICAL COMPONENTS OF CARING FOR NEWBORN FARM ANIMALS IS ENSURING THEY INGEST COLOSTRUM."**



## Continued from page 4

Babies taken from their mothers must have a warm and dry place to sleep. Prepare a well-bedded area that is draft-free. A large percentage of lamb and kid deaths shortly after birth are due to hypothermia so monitor body temperature and help dry kids off that are still wet. The inside of their ears and mouth should not feel cold. If a kid doesn't have a strong suckle reflex, it's body temperature may be low. Use a heat lamp suspended away from walls to provide supplemental heat for the first few days of life.

After 24 hours of colostrum, lambs and kids can be changed over to goat's milk, cow's milk or a commercial milk replacer. Gradual change over is best, like any feed adjustment. Youngsters can either be self fed or hand fed. Self-feeding requires less labor and allows the kids or lambs to suckle more often. Gravity fed or straw/suction fed lamb bars or buckets can be purchased for self-feeding.

Hand feeding by bottle allows you to control the amount of milk or replacer each lamb gets. If you choose to feed free choice in a self-feeding situation, be sure the milk is cold. This will help prevent over eating and milk spoilage. Lambs and kids typically consume 1-2 quarts daily on a self-feeding system.

Avoid placing very young lambs in the same pen with older lambs if using a self-feeder or they may not get sufficient amount of milk.

The youngsters should be given plenty of opportunities for exercise and sunshine.

A high protein creep feed and clean water should be available at all times, but especially when weaning from milk. As soon as the kids and lambs begin eating a little grain and hay, the rumen will begin to develop. They will start to chew their cud at this time. The rumen is fully developed at around 8 weeks of age. If they weigh two and a half times their birth weight, 8 weeks old is an appropriate time to wean. Start weaning with once per day milk feedings for several days before removing milk entirely.

A few additional cautions when raising orphans:

Do not overfeed a bottle baby. Overfeeding can cause scours and potentially bloat. Bottle babies are notorious for acting hungry all the time, but they will literally guilt you into their own death.

Artificially raised lambs and kids should be vaccinated for enterotoxemia (overeating disease). Do not use milk replacers meant for cattle or pigs as they do not have a high enough fat content for lambs and goat kids. Keep feeding buckets, nipples, or bottles as clean as possible to avoid infections and stomach upsets. Constipation can be a problem in newborns. If you notice dry and matted feces on the tail, clean with a damp rag.

Lastly, take time to enjoy the presence of new life on the farm! Kidding season, though full of challenges, is my favorite time of year!





# NO HOOV NO HORSE SHEEP (OR GOAT)!

By: Caitlin Jackson | Monroe County

Foot rot in sheep and goats is a common costly disease in the U.S. and Georgia flocks are no different as foot rot is as serious here as it is across the country. There is some good news in the fact that footrot can be prevented with close management and maintaining good biosecurity.

## WHERE DOES FOOT ROT COME FROM?

Think of foot rot as 'The Perfect Storm' of hoof disease because it occurs when two anaerobic bacteria (*Fusobacterium necrophorum* and *Bacterioides nodusus*) have the opportunity to come together in the perfect environment. The *F. necrophorum* is found in soil and/or manure and naturally occurs wherever there are small and large ruminants. The *B. nodusus* is found in the hooves of infected animals. Add in a moist, warm and possibly unsanitary environment and very quickly the infected animals mingling around with the rest of the herd will result in foot rot spread throughout the herd.

## FOOT ROT VS FOOT SCALD

Foot scald is a type of foot rot and is sometimes referred to as benign foot rot. Foot scald is an infection of *F. necrophorum* only and is contagious. Foot scald is something to be concerned about as it can cause lameness and will often result in sores between the toes of the hooves.

## WHAT SIGNS SHOULD YOU BE LOOKING FOR?

Sheep and goats with foot rot will exhibit varying signs of lameness. As foot rot progresses in the hoof the animal will become even more reluctant to move which will result in decreases in weight gain, wool production, milk, and even their reproductive capabilities.

If an animal appears that they are starting to limp or holding their leg up then they should be confined for examination. When you examine the hoof it helps to have a bristle brush to clean the bottom of the hoof. If the hoof is overgrown its best to trim away excess hoof so you can fully examine and expose those areas. If foot rot is present sores may be observed between the toes that range from blanched and white, or red and swollen, the tissue between the sole of the toe and the hoof wall will be eroded or even separated, foul odor, and in more severe cases pus may be present.

## MY SHEEP OR GOATS HAVE FOOTROT, NOW HOW DO I GET RID OF FOOTROT?

The good news about foot rot is that it can be treated. Hooves should be trimmed before treatment so that air can reach the hoof. The first way foot rot can be treated is with a topical application of a copper sulfate solution, which is easy if only a few animals need to be treated. If a large part or all of your flock needs to be treated for foot rot it is best to let your animals stand in a footbath of 10% zinc sulfate solution (8 pounds zinc sulfate to 10 gallons water) for up to 15 minutes. If neither of those options are available to you then a 7% iodine solution or a diluted 50:50 bleach and water solution has shown to be effective as well. Footbath treatments can be repeated every five to seven days. Some antibiotics have been shown to be effective but will require a veterinary prescription.

To fully eradicate foot rot from a flock infected animals should be culled.

## HOW DO I PREVENT FOOT ROT?

The best way that foot rot can be kept out of your flock is to quarantine any new animals for a minimum of 21 days as the *B. nodusus* bacteria will only live in soil for 14 to 21 days. Best practice would be to trim the feet of new animals and treat with a footbath once they arrive. Sanitize all equipment after treating quarantine animals.

Regular hoof trimming at least twice a year and footbaths are important

Cull any animals that do not respond to treatment.

## OTHER FOOT ISSUES

Sheep and goats can have a myriad of hoof issues that can cause them pain in their feet including abscesses, corns, laminitis or a foot trauma.

## IS THERE A VACCINE?

Footvax® is a multi-strain footrot vaccine. It is proven effective in the prevention and treatment of footrot in sheep. Footvax® is used in other countries but has not been available in the United States for a number of years. The California Wool Growers Association, working with the manufacturer, ASI and the USDA, has secured limited access to this vaccine.

In January 2021, the Georgia Sheep Association obtained an agreement from Dr. Cobb, Georgia State Veterinarian, to purchase Footvax® vaccine from California.

GSWGA is working out ordering and distribution details. Interested in learning more? Email them at: [georgiasheep@gmail.com](mailto:georgiasheep@gmail.com)



# GEORGIA JUNIOR NATIONAL LIVESTOCK SHOW

Perry, GA

February 18-20, 2021



### Beef Cattle

2/18 - 8:30 am

- First Year Market Beef Show
- Showmanship - starting with 4th grade

2/19 - 8:00 am

- Breeding Heifer Show

2/20 - 9:00 am

- Market Beef Show

### Dairy Cattle

2/18 - 9:00 am

- Showmanship - starting with 4th grade

2/19 - 9:00 am

- Commercial Dairy Heifer Show

### Swine

2/18 - 8:00 am

- Showmanship - Grades 12-9, 4-8)

2/19 - 8:00 am

- Market Barrow Show

2/20 - 8:00 am

- Market Gilt Show

### Breeding Does/Ewes


2/19 - 9:00 am

- Breeding Doe Show

2/20 - 8:30 am

- Breeding Ewe Show

# GOOD LUCK EXHIBITORS!!!!



*"Testing your soil through your local Extension office will yield a plethora of information that can be immediately put to work to improve your pastures. "*

## **THE NEXT STEP IN PASTURE MANAGEMENT**

*Written by Brooklyne Wassel | Pike County*

Don't get caught trying to play catch up this year when it comes to pasture management. Think about setting your pasture up for a successful spring and summer. The best first step is the all-important soil sample. Though a large portion of agricultural operations choose to soil test in the fall, it is never too late to test. Testing your soil through your local Extension office will yield a plethora of information that can be immediately put to work to improve your pastures. Most notably is the soil pH and liming recommendation. Lime will raise the soil pH to desirable levels to allow pasture forage to efficiently utilize nutrients in the soil.

Without the proper pH, the process of nutrient uptake is hindered. Once you have your soil pH taken care of, you can turn your attention to green-up.

Spring undoubtedly starts a new phase in pasture management. It is the time of year that brings new growth and new life. As wonderful as it sounds, not all new life in a pasture is welcome. Many warm-season weeds like to start their new journey of life beginning in the spring. This is why February is such a vital time for those who maintain pastures.



To keep pesky weeds at bay such as the infamous pasture bully, foxtail, utilizing pre-emergent herbicides is a useful tool in the producer's tool box.

Pre-emergent is applied before weeds are visible, so it can be easy to miss the timing or regard this control method as frivolous. Believe me, this is not a step you want to skip! Weeds are easier to control before they emerge. If you wait until they are visible, you are already fighting from behind. While some pre-emergents are available to all consumers, some pesticides are specifically labeled for those with special licenses. Don't worry, it isn't as scary as it sounds. A private applicator's license is intended for individuals who produce an agricultural commodity, such as sheep and goats, and wish to utilize restricted-use pesticides. A license such as this allows producers to utilize a wider array of chemicals to control and maintain their pastures.

This sounds pretty good, but now what do you do? You need to start by completing the Private Applicator training program through the Georgia Professional Certifications storefront on the UGA Marketplace. You can purchase the online course for \$25 and will subsequently receive an email with instructions from Dr. Mickey Taylor. The online course has quizzes and multiple modules that have to be passed in order to progress until the certificate is available at the end. Reattempts are allowed, so there is no reason for test anxiety. Dr. Taylor estimates that it takes novice farmers approximately 4-5 hours to complete the course. Take your printed certificate, license application and driver's license to your local Extension office. Your local Extension Agent will take care of the remainder of the process for you. A license will come to you through the mail in approximately one month.

### **A Private Applicators License does come with extra responsibility and things to consider:**

- The initial license is good for five years.
- Three recertification hours are needed within the five-year timeframe to keep the license valid.
- If enough recertification hours are obtained, the license will roll over for another five years.
- Recertification hours are available year-round through numerous Extension events including webinars, so these are not elusive or difficult to earn.
- Private applicators are not allowed to receive compensation for services. This license is for applying for your operation or supervising on your operation, not for applying herbicide for the farm down the street.
- The label is the law! Be sure to always follow the label on all pesticides.

Yes, there are many things to consider before diving into this endeavor, and it isn't right for every pasture manager. If you have any questions about obtaining a Private Applicators License or wonder if this might be the right course of action for you, do not hesitate to contact your local Extension Agent. We are here to help you! While obtaining a license might not be for everyone, making a pasture management plan to prevent weeds most certainly is.

Please visit the [UGA Extension Private Applicators Pesticide Safety Website](#) by clicking on this link

# HOW ARE "EWE" DOING?

*Tips for the Farming Couple*

## Is Your Relationship Woolly?



By Nicole Walters, FACS Agent- Monroe County  
Valentine's Day is just around the corner. Stores are bursting with flowers, candies, cards and other trinkets to send to your special someone. Given the last few months, maybe you find your relationship could use a little more effort to express your appreciation for your mate. Listed below are some helpful tips to develop and maintain your relationship by focusing on your friendship with your mate.

- Schedule meaningful time together
- Highlight common interests and activities. Use these to create couple traditions and rituals.
- Engage in clear and positive messages
- Envision yourself as a "team" and work towards common goals
- Participate in positive interactions

Maintaining a relationship as a farmer during these stressful times can be hard. Communicating with your mate while using the above tips will help aid in nurturing your relationship. For more relationship resources, visit [www.ugaprojectfree.com](http://www.ugaprojectfree.com).

MENTAL AND PHYSICAL HEALTH  
TIPS FOR THE G.O.A.T.S.  
(Greatest of All Times!)

- **GET REGULAR EXERCISE AND EAT HEALTHY**
- **OFFER YOUR TALENTS AND STRENGTHS TO SERVE OTHERS**
- **ACKNOWLEDGE AND APPRECIATE THE GOOD THINGS IN YOUR LIFE**
- **TARGET REGULAR SLEEP AND WAKE TIMES**
- **STRIVE TO MANAGE STRESS IN HEALTHY WAYS**





# A FOUR PART SERIES ON HARVEST METHODS

BY HAILEY ROBINSON | 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 first option is § 313.5 Chemical; carbon dioxide

## **§ 313.5 Chemical; carbon dioxide.**

The slaughtering of sheep, calves and swine with the use of carbon dioxide gas 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 gas, required effect; handling.**

(1) The carbon dioxide gas shall be administered in a chamber in accordance with this section so as to produce surgical anesthesia in the animals before they are shackled, hoisted, thrown, cast, or cut. The animals shall be exposed to the carbon dioxide gas in a way that will accomplish the anesthesia quickly and calmly, with a minimum of excitement and discomfort to the animals. In swine, carbon dioxide may be administered to induce death in the animals before they are shackled, hoisted, thrown, cast, or cut.

(2) The driving or conveying of the animals to the carbon dioxide chamber shall be done with a minimum of excitement and discomfort to the animals. Delivery of calm animals to the anesthesia chamber is essential since the induction, or early phase, of anesthesia is less violent with docile animals. Among other things this requires that, in driving animals to the anesthesia chamber, electrical equipment be used as little as possible and with the lowest effective voltage.

(3) On emerging from the carbon dioxide tunnel, the animals shall be in a state of surgical anesthesia and shall remain in this condition throughout shackling, sticking, and bleeding, except for swine in which death has been induced by the administration of carbon dioxide. Asphyxia or death from any cause shall not be produced in animals before bleeding, except for swine in which death has been induced by the administration of carbon dioxide.

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**(b) Facilities and procedures -**

**(1) General requirements for gas chambers and auxiliary equipment; operator.**

(i) The carbon dioxide gas shall be administered in a tunnel which is designed to permit the effective exposure of the animal. Two types of tunnels, based on the same principle, are in common use for carbon dioxide anesthesia. They are the "U" type tunnel and the "Straight Line" type tunnel, and are based on the principle that carbon dioxide gas has a higher specific gravity than air. The tunnels are open at both ends for entry and exit of animals and have a depressed central section. Anesthetizing, or, in the case of swine, death-inducing, carbon dioxide concentrations are maintained in the central sections of the tunnels.

Effective anaesthetization is produced in these central sections. Animals are driven from holding pens through pathways constructed of large-diameter pipe or smooth metal and onto continuous conveyor devices that move the animals through the tunnels. The animals are either compartmentalized on the conveyors by mechanical impellers synchronized with the conveyor or they are otherwise prevented from crowding. While impellers are used to compartmentalize the animals, mechanically or manually operated gates are used to move the animals onto the conveyors. Surgically anaesthetized animals, or killed swine, are moved out of the tunnels by the same continuous conveyors that moved them into and through the carbon dioxide gas.

(ii) Flow of animals into and through the carbon dioxide chamber is dependent on one operator. The operation or stoppage of the conveyor is entirely dependent upon this operator. It is necessary that he be skilled, attentive, and aware of his responsibility. Overdosages and death of animals can be brought about by carelessness of this individual.



**(2) Special requirements for gas chamber and auxiliary equipment.**

The ability of anesthetizing equipment to perform with maximum efficiency is dependent on its proper design and efficient mechanical operation. Pathways, compartments, gas chambers, and all other equipment used must be designed to accommodate properly the species of animals being anesthetized. They 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 well padded rigid material. Power activated gates designed for constant flow of animals to anesthetizing equipment shall be so fabricated that they will not cause injury. All equipment involved in anesthetizing animals shall be maintained in good repair.



**(3) Gas.** Maintenance of a uniform carbon dioxide concentration and distribution in the anesthesia chamber is a vital aspect of producing surgical anesthesia. This may be assured by reasonably accurate instruments which sample and analyze carbon dioxide gas concentration within the chamber throughout anesthetizing operations. Gas concentration shall be maintained uniform so that the degree of anesthesia in exposed animals will be constant. Carbon dioxide gas supplied to anesthesia chambers may be from controlled reduction of solid carbon dioxide or from a controlled liquid source. In either case the carbon dioxide shall be supplied at a rate sufficient to anesthetize adequately and uniformly the number of animals passing through the chamber. Sampling of gas for analysis shall be made from a representative place or places within the chamber and on a continuing basis. Gas concentrations and exposure time shall be graphically recorded throughout each day's operation. Neither carbon dioxide nor atmospheric air used in the anesthesia chambers shall contain noxious or irritating gases. Each day before equipment is used for anesthetizing animals, proper care shall be taken to mix adequately the gas and air within the chamber. All gas producing and control equipment shall be maintained in good repair and all indicators, instruments, and measuring devices must be available for inspection by Program inspectors during anesthetizing operations and at other times. An exhaust system must be provided so that, in case of equipment failure, non-uniform carbon dioxide concentrations in the gas tunnel or contamination of the ambient air of the establishment will be prevented.

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

Looking for a twist on a traditional meal? Try this HEARTY meatloaf. It's a perfect meal to warm you up on a cold winter night!

## MEATLOAF WITH GROUND LAMB

Time: 1hr 15 mins

Yield: 1 loaf

### INGREDIENTS

- 2 eggs
- ½ cup dry breadcrumbs
- ½ teaspoon salt
- ¼ teaspoon black pepper
- 1 lb ground beef
- 1 lb ground lamb
- 2 tablespoons olive oil
- 1 medium onion, chopped
- 4 garlic cloves, minced
- 1 teaspoon dried thyme
- 1 teaspoon dried basil
- ½ cup ketchup or 1/2 cup tomato paste
- 1 tablespoon Worcestershire sauce

### DIRECTIONS

- Preheat the oven to 350 degrees.
- In a large skillet, sauté the onion, garlic, thyme, and basil in the olive oil until the onion is soft and almost golden. Take the skillet off the heat and let the mix cool slightly.
- Crack the eggs into a large bowl and beat. Add the breadcrumbs, salt, and pepper.
- Add the ground meats and your cooled onion, garlic, and herbs.
- Add the worcestershire sauce and ketchup (or tomato paste).
- Mix everything together and place in a greased loaf pan. Make sure you pack it down tightly.
- Bake for 60-65 minutes.
- Let it cool for 5 minutes.
- Drain the fat and serve!



Wash hands immediately after handling eggs and raw meats. Remember to also clean surfaces that come in contact with eggs and raw meats to prevent cross contamination.

Source: [www.food.com](http://www.food.com)

# JOURNEYMAN FARMER CERTIFICATE PROGRAM

UGA Extension in Carroll, Haralson & Paulding Counties are hosting a virtual *Journeyman Farmer* program that provides a comprehensive training for beginning farmers.

The program requires a two-step training:

**Step 1 - Small Farm Business Planning**

Monday and Wednesday, March 1 & 3

Monday and Wednesday March 8 & 10

5:00 pm -7:00 pm each day; via Zoom

Cost for Step One: \$20

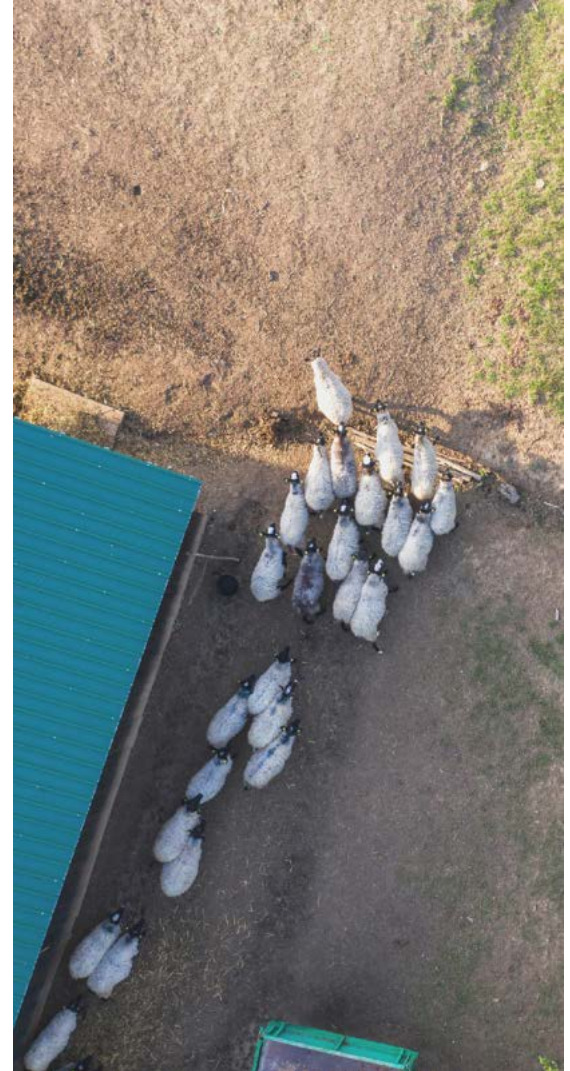
**Step 2 – Small Ruminant Production**

Wednesdays, March 17, 24 and 31, April 7, 14, and 21

5:00 pm -7:00 pm each day; via Zoom

Cost for Step Two: \$30

\*Participants must complete Step One prior to participating in Step Two.



**TO REGISTER:**  
**<https://journeymanfarmer2021.eventbrite.com>**

The UGA Extension offices in Carroll, Haralson, and Paulding counties have teamed up to facilitate a virtual Journeyman Farmer Certificate Program. It is a comprehensive training program for beginning and small farmers provided by UGA Cooperative Extension. The Journeyman Program is a series including the small farm business training and small ruminant production course. This program is for those interested in starting a farm business or those who have recently begun farming and want to improve their operation.

**Step 1** is Small Farm Business Planning and will be held on March 1, 3, 8, and 10 from 5-7 pm via zoom. This training was developed in partnership with the UGA Small Business Development Center. Topics include lessons learned from successful small farms, market feasibility, balance sheets, income statements, risk management, marketing and technology, as well as preparing a business plan. Successful participants will have the foundation to prepare their own farm business plan. Cost for Step 1 is \$20.

**Step 2** is Small Ruminant Production and will be held on March 17, 24, 31, April 7, 14, and 21 from 5-7 pm via zoom. This six-week training was developed by UGA Extension in partnership with Fort Valley State. Topics include: breeds and breeding, health and nutrition, pasture management, predator control, lambing and kidding management, parasites, meat production and marketing. Cost for Step 2 is \$30

Participants must complete Step 1 prior to participating in Step 2.

**Registration is due February 22.** Call (770) 836-8546 or email Carroll County Ag Agent Paula Burke at [pjburke@uga.edu](mailto:pjburke@uga.edu) for more information and to register.





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