UF IFAS Extension UNIVERSITY of FLORIDA

Small Ruminant Update

Vol. 4 No. 4 Fall 2024

In this Issue

Title	Page
Ectoparasites	1
Breeding Soundness Eval	1
Producer's Corner	2
Effective Grazing System	3-4
Recent Market Report	3
Nutritional Flushing	4
Find your County Extension	4
Urolithiasis	5
General Announcements	6-7
FAMACHA Factsheet	8-9
Upcoming Events	10-13

Ectoparasites of Small Ruminants

There are many ectoparasites that may cause challenges in small ruminants, examples include species of insects, mites, ticks, mosquitoes and flies. Numerous challenges can arise depending on the parasite—examples include: anemia (blood sucking ectoparasites), infectious disease transmission, localized or systemic irritation (allergic response), ocular or nasal discharge, etc. Some parasites are spread through direct contact or by fomites (i.e., bedding, transportation facilities, grooming equipment, etc.).

Lice

Lice can be divided into 2 categories: chewing and sucking. May be present throughout the year but most common in the cooler months. Lice mostly spread through direct contact but can spread through fomites too. Treatment is best accomplished via topical administration of an insecticide.

Flies, Mosquitoes and Gnats

Abundant throughout the world and become of greater concern during the warmer months. Often they spend increased time around low-lying regions with standing water. Administration of topical insecticides can also be utilized to aid in control.

Ticks

Both hard and soft ticks may parasitize small ruminants. The tick's life cycle varies broadly, from months to several years. Most tick species spend little time actually on their host. Consult with your veterinarian prior to the application of product for treatment of ticks.

It is important to make an accurate diagnosis of the type of ectoparasite infesting the animal prior to treatment—consult with your veterinarian!

The Breeding Soundness Evaluation (BSE)

For optimal farm productivity, producers should select rams/bucks for fertility, in addition to other traits. To help identify males who are capable of successfully breeding females, a breeding soundness evaluation (BSE) should be performed annually. It is not uncommon for up to 10-15% of rams/bucks to fail a BSE. This can be very costly to the producer, if they fail to identify this problem prior to the start of the breeding season.

The BSE should be performed by a veterinarian. This evaluation should take place 30-60 days prior to the breeding season.

The BSE consists of:

1) Physical examination
2) Evaluation of the reproductive organs
3) Semen collection and evaluation

If the ram/buck fails the initial BSE, there should still be time for a re-test prior to breeding season. If he fails the second BSE, he will be considered an unsatisfactory potential breeder and must be replaced for the upcoming breeding season.

Utilizing a BSE can greatly improve the profitability of a flock/herd. When utilizing a ram/buck that has satisfactorily passed their BSE, producers should expect a shorter lambing/kidding season, fewer open ewes/does, therefore resulting in a higher percentage of lambs/kids born.

Consult with your veterinarian prior to breeding season in order to schedule your ram/buck's BSE. This will help set your operation up for success this season.

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For more information contact us:

Brittany N. Diehl, DVM, MS ▪ bn.diehl@ufl.edu ▪ (352) 294-4319

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Producer's Corner Submission:
The Benefits of Mentorship

Submitter: Valaria Kilby, Dragonspawn Weir, Lakeland, FL

My husband and I have a small place in north Polk County, FL where we raise sheep and an occasional steer for market. Something I would like to touch on is the need for mentorship in the industry.

It doesn't matter how large, nor how small your operation is, all of us at one time were just starting out. For us, that came about when we decided to retire and move to Florida. Like many others, we are admitted transplants to the state. What I had planned on was getting a few cows, some chickens, and going with that. My husband had a different scheme.

When he said to me he wanted to raise sheep I gawked at him like a (pardon the pun) deer in the head-lights. My response was "Great! You have chosen the only livestock I have no experience with." We had friends with sheep and the plan became to spend a lot of time at their place learning all we could about sheep.

Then came COVID. That as they say, was that. We moved a thousand miles away, completely unprepared for the nuances of raising sheep. Enter Louise at Windlestone Ranch.

The initial contact with Louise was to the cattle side. I was looking for a steer. Of course, visiting her ranch gave us an eyeful of all the great looking sheep she had. We had gotten our sheep only a few months before and were explaining how green we were. She said the best thing in the world to me then.

"If you have any problems or questions, do not hesitate to call."

And thus began an unofficial mentorship. I have called her for everything…and I mean EVERY…SINGLE…THING. She will vouch that in the two years we have had sheep that if it could go wrong, we had it go wrong. But through it all, I could call or text Louise and she was always able to talk me though it. Best part…I never felt like she was faulting or blaming me for the things going wrong with my sheep.

I won't mince words…without her mentorship, I would have quit on these sheep. Period. End of statement.

One thing about Florida that we definitely were not prepared for was the extreme parasite issue. Being originally from Maryland, it wasn't nearly as prevalent.

Having that mentorship from Louise was the one thing that kept us from quitting. And that can be a huge difference for anyone.

Producer's Corner—Knowledge Exchange

Are you a producer? Have something to share?!

If you are a small ruminant producer and have a topic area of interest that you believe would be beneficial to share with other producers—please let us know! We are looking to feature one producer in each newsletter issue!

We believe knowledge exchanged between producers of their practical experiences is valuable and we want to provide a space to facilitate that. We would ask that you provide a few paragraphs to be shared in the newsletter on your chosen topic. The content and grammar will be reviewed by our UF Small Ruminant Extension team, and edits will be made as needed prior to publishing.

If you're interested, please contact us via email at bn.diehl@ufl.edu. We look forward to hearing from you!

Developing an Effective Grazing System for Your Small Ruminants

By: Lizzie Whitehead,
UF/IFAS Extension Agent,
Bradford County

Small farm operations are becoming more popular as the amount of land that is available for large livestock enterprises and row crops is reduced by urban sprawl. Sheep and goats are ideal for small farm operations due to their smaller size and lower land requirements compared to larger livestock. Effective grazing management strategies are essential for small ruminant producers, as they help optimize pasture health, enhance animal productivity, and promote environmental sustainability. Forages play a vital role in providing nutrition, forming a key component of a small ruminant's diet. When planning grazing management techniques, several factors should be considered:

-Animal nutrient requirements
-Forage species
-Forage nutrient requirements
-Input costs
-Estimated return on investment
-Desired outcomes

Figure 1. Sheep grazing in pasture. (*Credit: UF/IFAS Communications*)

Grazing Considerations

Grazing decisions often hinge on stocking rate or stubble height. The **stocking rate** refers to the number of livestock per acre of land and can be adjusted to ensure that the nutritional needs of the animals are met without overgrazing the pasture. The appropriate number of animals per acre depends on the species of livestock you have. Typically, if you have adult sheep or goats, you would want three animals per one acre of land. **Stubble height** indicates the length of forage remaining after grazing. Delay grazing until your pasture has reached at least 6-8 inches in average height. Allow for a period of rest when the pasture is 3-4 inches in average height as shown in figure 2.

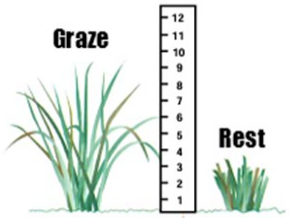

Figure 2 *by Lori K. Warren, PhD, UF/IFAS*

Continuous Grazing

Some producers favor continuous grazing for its lower input costs and minimal labor requirements. In continuous grazing, livestock have uninterrupted access to a pasture without rest periods for plant regrowth. The livestock will determine the stubble height and grazing frequency in that area, as shown in Figure 3. However, a major drawback of continuous grazing is the risk of overgrazing.

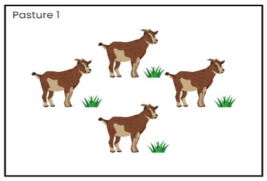

Figure 3 *by Lizzie Whitehead, UF/IFAS Extension Agent.*

Overgrazing

Signs of overgrazing include short stubble heights, bare spots, and diminished pasture productivity. Overgrazing can harm plants by preventing them from replenishing stored nutrients, leading to die-off. As desirable grasses decline, less desirable weeds may take over. Restoring overgrazed pastures can require substantial time, money, and labor.

Rotational Grazing

In a rotational grazing system, livestock are rotated between pastures, allowing rest periods for plant regrowth. Rotational grazing is a highly recommended (*continued on page 4*).

Market Report Update

The reported data below is compiled by the USDA—Livestock Auction.

Visit the website:
mymarketnews.ams.usda.gov/livestock_auction_dashboard

Market report dates:

10/07/2024 to 10/12/2024

Sheep Overview

Wtd Average Price (per cwt)

Feeder Sheep/lambs	$171.73
Slaughter Sheep/lambs	$128.43

Goat Overview

Wtd Average Price (per cwt)

Feeder Goats	$269.14
Slaughter Goats	$214.52

Local Price Trend Report— Ocala Livestock Market in Ocala, FL

Market report date: 06/21/2024
**A more recent report is not available.*

Sheep (low to high range)

Young ewes	$ 40—70.00
Young rams	$ 65–115.00
Old ewes	$75—125.00
Mature rams	$225—280.00

Goats (low to high range)

Small does	$30—100.00
Small bucks	$40—135.00
Medium does	$50—135.00
Medium bucks	$50—165.00
Large does	$—
Large bucks	$150—220.00
Boer –Type Goats	
Does	$180—270.00
Bucks	$390–410.00

Nutritional Flushing to Improve Reproduction

By: Cassidy Dossin,
UF/IFAS Extension Agent,
Clay County

Fall is upon us and along with it comes the breeding season for sheep and goats. This is a crucial time for producers as reproduction is the basis for farm profitability and functionality. As small ruminant producers make plans for the breeding season, they may consider implementing a practice called nutritional flushing to boost reproductive numbers. Flushing is the practice of increasing the plane of nutrition, with a focus on energy supplementation, for ewes and does ahead of and into the breeding season. This practice has the potential to boost ovulation, conception, estrus exhibition, and embryo implantation rates in small ruminant females. Flushing has shown to improve the lamb or kid crop by 10-20% through increasing the number of ovulations in ewes/does and increasing survival of lamb/kid embryos, resulting in more twin births.

The timeline for flushing can vary; typically flushing begins 2 to 3 weeks ahead of the breeding season with a gradual increase in nutrition and can carry 2 to 4 weeks or longer into the breeding season. Animal response to flushing is greatest in mature ewes and does with moderate to below average body condition score (BCS), between 2 to 3. Ideally, BCS scores should be 3 to 3.5 at breeding. Producers should note that it takes 3 weeks on an increased level of nutrition to increase the BCS by one half-score. Flushing has shown no benefit in animals with excessive body condition (BCS 4-5) and animals that are overly thin (BCS 1); thus, producers must evaluate their animals and potentially select a fraction of the herd or flock for flushing to reap the greatest impact.

Producers can increase the plane of nutrition to flush their flocks or herds in a variety of ways. To flush a flock, total digestible nutrients (TDN) or energy needs to be increased in the diet, and a smaller increase in crude protein (CP) can be beneficial as well but is not the primary focus. Corn is a high-energy feedstuff and can be a great supplementation for flushing at around 1 pound per ewe per day. A variety of grains or feedstuffs can be used for flushing, however, increasing feed costs is not the only method. Good quality hay, silage or haylage, and turning animals out to high quality pastures are also methods for flushing a herd or flock. However, legume pastures should be avoided as fresh legumes contain estrogen-like compounds that may interfere with estrous cycles. Flushing is a beneficial management tactic for breeding season preparations that can easily be adapted to fit into any operation. Producers should start planning early, keep accurate records, and assess available resources before implementing flushing on their sheep or goat operation.

Photo caption: Over conditioned females won't benefit from flushing. UF/IFAS photo by Tyler Jones

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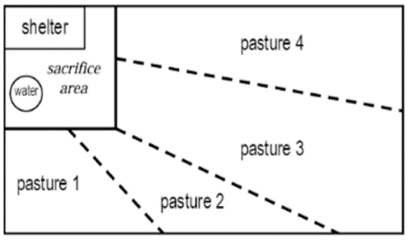
Continued from page 3 (Grazing Systems)
management technique and there are several different ways you can design a rotational grazing system on your property. However, this system does have higher input and requires more labor as livestock must be monitored and moved from pasture to pasture as needed. The livestock manager has control over the stubble height and frequency of grazing to prevent overgrazing. Rotational grazing is particularly beneficial for producers looking to utilize cool-season forages, as it enables designated areas for planting and growth. Figure 4 illustrates a setup for rotational grazing, including a sacrifice area where livestock can be fed or watered, providing access to the pasture intended for grazing.



Source: Lori K. Warren, PhD, UF IFAS

References
Vendramini, J. & Sollenberger, L. 2020. Impact of Grazing Methods on Forage and Cattle Production. https://edis.ifas.ufl.edu/publication/AG268
Warren, L. 2015 Grazing Strategies for Horse Pastures. https://sfyl.ifas.ufl.edu/agriculture/horse-pasture/

Who is your local County Extension Agent?

UF/IFAS Extension has offices in all 67 counties in Florida!
You can find your local County Extension office by visiting:
sfyl.ifas.ufl.edu/find-your-local-office

Urolithiasis in Small Ruminants

Urolithiasis, also called waterbelly or urinary calculi/stones. Knowing the clinical signs, forms and prevention of urolithiasis is key to ensure the health and welfare of your sheep or goats.

What causes urolithiasis?
It is caused by a blockage of the urethra by stones formed in the bladder. It commonly occurs secondary to consuming a high grain, concentrate diet.

Who is at risk for urolithiasis?
Male small ruminants are predisposed to stone formation with an overarching prevalence in castrated males, wethers. Females rarely develop urolithiasis.

Where does the blockage occur?
Male ruminants have an "s" shaped curve in their penis called the sigmoid flexure. This is a common location for stone formation. Smaller crystals may get caught in the urethral process, or vermiform appendage, at the very tip of the penis.

What are the common clinical signs?
Early clinical signs can be vague and vary a lot. Some may include reduced urine flow, hunched back, abdominal discomfort, tail flagging, lethargy and depression.
Ultimately, the stones will completely occlude urine flow, resulting in an extremely distended bladder that may ultimately rupture. If this occurs, the abdomen will become swollen and distended.
It is critical that a veterinarian is contacted immediately if any of these signs are observed.

Why do the stones form?
Most commonly, wethers develop these stones due to an improper Calcium:Phosphorus ratio in the ration. The development of stones is multifactorial and contributed to by numerous factors and is based on the type of stone that is present.

What types of stones commonly form in small ruminants?
There are four types of stones that commonly occur in small ruminants. The two most common stone types are phosphatic and calcium carbonate.

Phosphatic
They may also be referred to as struvite or magnesium ammonium phosphate stones. They commonly form secondary to a high grain, concentrate diet. High phosphorus in the diet can lead to these stones.

Calcium Carbonate
These stones are typically a result of excess calcium in the diet. These stones are more common when feeding a high-legume diet (i.e., alfalfa).

Calcium Oxylate
These stones are less common but still are seen. They more commonly occur secondary to grazing lush clover and legume pastures.

Silica
These stones are more common in the western states where high silicate soils are present. Consumption of high silicate forages may result in excess calcium or insufficient phosphorus, resulting in stone formation.

Urolithiasis is an emergency—contact your veterinarian immediately if suspected!

If left untreated, obstruction of the urinary tract may result in urethral rupture or urinary bladder rupture. If rupture occurs, animals often have a short lapse in the pain associated from the distention. At this time, they may appear normal. However, shortly thereafter depression, lethargy and anorexia will occur. Prognosis becomes bleak as the disease progresses, if intervention does not occur immediately.

Treatment
Once the animal is exhibiting clinical signs, treatment typically requires surgical intervention. If the condition is untreated, the bladder ruptures, this will result in the condition/name "water belly". Having a relationship with a veterinarian is critical for the best chance for a positive outcome. The identification of the type of stone is important to aid in management decisions for prevention and treatment too.

Prevention is KEY to avoid urolithiasis!

Prevention
Prevention is really the best way to avoid urolithiasis.

- Promote water consumption to increase urine dilution.
- Avoid feeding high grain, concentrate diets to male small ruminants.
- Consider delaying castration to allow for testosterone influence longer, resulting in urethra diameter increase. **Speak with your veterinarian to determine the appropriate method and timeline for your operation.*
- The diet should contain a 2:1 ratio of Calcium:Phosphorus at all times.
- Animals should have access to a complete free-choice mineral at all times.

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RECIPE CORNER

Goat Stew

1lb bone-in goat meat, cut in chunks
1/4 cup vinegar
1/4 cup soy sauce
4 cloves garlic, crushed
1 tablespoon vegetable oil
1 onion, chopped
1 red bell pepper, cut into squares
1 cup tomato sauce
2 cups beef stock
1 potato, peeled & cut into chunks
2 carrots, peeled & cut into chunks
1/2 cup green peas
1/2 teaspoon salt & pepper
1 pinch cayenne pepper

Directions: Mix goat meat with vinegar, soy sauce & garlic in a large bowl. Cover & refrigerate for 6-8h. Remove meat from marinade & pat dry. Heat oil in a large pan & brown meat over medium-high heat. Set meat aside. Add onion, pepper, garlic & cook til onion is translucent. Pour in tomato sauce & bring to simmer. Add meat to sauce. Add in remaining ingredients and cook til potatoes/carrots are tender. Enjoy!

Announcements

Upcoming 2025 UF Buck Test

The dates will be announced this winter for 2025. Please visit our website to see program details and requirements.

Visit our website: animal.ifas.ufl.edu/smallruminant/buck-test/

Contact Us:

Clay Whitehead, jacobcwhitehead@ufl.edu, (904) 796-0441
Dr. Brittany Diehl, bn.diehl@ufl.edu, (352) 294-4319

Upcoming 2025 UF Ram Test

The dates will be announced this winter for 2025. Please visit our website to see program details and requirements.

Visit our website: animal.ifas.ufl.edu/smallruminant/ramtest/

Contact Us:

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Dr. Brittany Diehl, bn.diehl@ufl.edu, (352) 294-4319

UF/IFAS Small Ruminant Short Course

Dates: 2025 program dates will be announced this winter

Thank you to everyone who joined us for the 2024—it was great! We had a tremendous turnout and we hope you valued the experience. We will announce the dates for 2025 soon.

Contact Us:

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Matti Moyer, matti.moyer@ufl.edu, (352) 392-3889

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Around the State...

Check out our newest IFAS EDIS publication online!

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UF/IFAS PEER REVIEWED VM264

https://doi.org/10.32473/edis-VM264-2024

Selection of Sheep Meat Breeds in Florida[1]

Laura H. Bennett and Brittany N. Diehl[2]

Abstract

This article is meant to serve as a general overview guide to the breeds of sheep that are most likely to have success in surviving in the harsh Florida climate. It is up to the producer to determine their preferences and goals and to select which breed among those mentioned in this article is most likely to meet their needs and goals. There are differences between genetic lines of breeds that can influence success; even so, the breeds mentioned in this article generally meet the necessary criteria to survive and thrive in Florida.

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Small Ruminant FAMACHA Certification

WHAT IS FAMACHA?

FAMACHA is a diagnostic tool used for small ruminants.

It helps producers determine the extent of anemia caused by barber pole worms based on the color of the inner eyelid.

Photo by Lizzie Whitehead, UF IFAS Bradford County Extension Agent

BENEFITS

- Identifies infected animals
- Allows for selective treatment based on necessity
- Decreases the use of dewormers, reducing the risk of animals developing drug resistance to dewormer
- Prolongs the effectiveness of the dewormer
- Reduces selection for resistant worms by increasing REFUGIA (worms not exposed to drugs remain susceptible)
- Reduces medical costs
- Adds value to the breeding stock
- Assists with selection and culling decisions

HOW TO USE A FAMACHA CARD

1. Cover the eye by rolling the upper eyelid down over the eyeball.
2. Push down on the eyeball.
3. Pull down the lower eyelid. The mucous membranes will pop into view.
4. Hold the scorecard near the eye and match the color of the pinkest portion of the mucous membranes to the FAMACHA card.
5. Repeat the process for the other eye.

Photo by Makayla Quick, UF IFAS Bradford County Extension Intern

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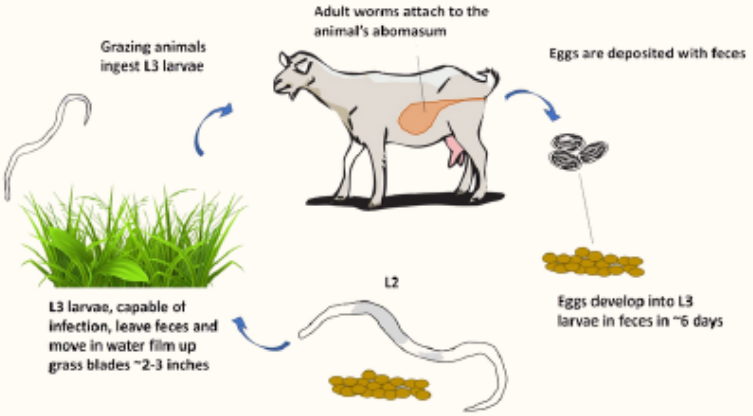
FREQUENCY

This process should be repeated, on average, every 2-3 weeks based on the lifecycle of the parasite.

It should be repeated every 7-10 days during high worm transmission periods (warm and humid weather).



Source: Kevin Korus, UF/IFAS Alachua County Extension Agent

INTERPRETING RESULTS

Categories 1 & 2: Do not deworm unless other symptoms of parasitic infection are present such as:

- Poor body condition score
- Loss of appetite
- Dull hair color
- Diarrhea

Category 3: Consider deworming if >10% of the flock is category 4+ or if the animal

- Is a lamb/kid
- Is pregnant or lactating
- Has a poor body condition score
- Has additional health problems
- Has a compromised immune system

Categories 4 & 5: Always deworm.

UPCOMING TRAININGS

North Florida FAMACHA Certification (Hybrid Course)

- When: December 6, 2024
- Where: UF Sheep Unit (Gainesville, FL)
- Scan the QR code for Registration Link

HAVE MORE QUESTIONS?

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Bradford County Florida

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OTHER ANNOUNCEMENTS:

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SMALL RUMINANT *Seminar*

MARKETING STRATEGIES FOR SMALL RUMINANT PRODUCTS

This workshop will focus on how small ruminant producers can create direct-to-consumer products to sale for custom orders, farmers markets, CSA, etc.

The event will be held November 4, 2024 from 1:00 pm to 5:00 pm (eastern) at the UF/IFAS Extension North Florida Research and Education in Quincy Florida, 155 Research Road, Quincy, FL 32351

The cost for the event is $35 and covers the cost snacks and a copy of the UF/IFAS Extension Florida Direct Marketing Handbook. Registration is through Eventbrite, and the QR code or link on this flyer will allow you to access the event registration

Eventbrite Link:

https://24SRMarketing.eventbrite.com

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FAMU COOPERATIVE EXTENSION

EVENT CONTACT

ROBBIE JONES
2140 West Jefferson St
Quincy, FL 32351

UF/IFAS EXTENSION
GADSDEN COUNTY
850-875-7255
r.jones1@ufl.edu

Gadsden COUNTY

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Small Pasture Clinic

Fall + Winter Cool Season Forages

October 26th 2024 8:00AM-12:00PM

625 N. Hathaway Ave Bronson, FL 32621

Topics:

- Permanent pasture
- Pasture management practices
- Soil testing and fertilization recommendations/requirements
- Poisonous plants

Demonstrations:

- Calibration of sprayer equipment

Preregister online:	Contact Micah Gallagher with any questions:
$20.00	micah.gallagher@ufl.edu
Day of registration (cash only): $30.00	(352) 486-5132

Register Online

https://SmallPastureClinic-LEVY-10262024.eventbrite.com

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