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Wild & Woolly

Maryland's Sheep & Goat Producer Newsletter

Volume XVIII Issue III Summer 2019

Jeff Semler at wagon tour

Flavors Abound As the Sun Goes Down*

Approximately 100 people sampled lamb, goat, and cheese and went on wagon tours of the Western Maryland Research & Education Center.

It was the 5th year of the Twilight Tour & Tasting, which started out as a way to promote goats and evolved into an event that promotes all aspects of sheep and goats: meat, dairy, fiber, and vegetation control. The event was open to the public. This year, special guests included members of the Maryland Association of County Agricultural Agents. A representative from Governor Hogan's office was also in attendance.

Arik Mills, co-owner of Hagerstown's Rik's Café was the featured chef. He prepared four dishes made from lamb and goat and cheese: lamb sliders (with sheep cheese), Baked Moroccan Lamb Loin, Goat Tacos (with feta goat cheese), and African Goat over Jasmine Rice.

Exhibitors included Shepherd's Manor Creamery (New Windsor, Maryland), Maryland's first and only licensed sheep dairy; Caprikorn Farm, makers of artisan cheese and home to some of the heaviest milking goats in the US, and Budding Creek Farm (Frederick), a small sheep and fiber farm.

Jeff Semler escorted wagon-loads of people to see the lamb research being conducted at the University of Maryland's Western Maryland Research & Education Center. This year's research is a repeat of last year's comparison of ram, wether, and short-scrotum lambs.

**Editor's note: I "stole" this title from an article in the Food/Local section of the Herald-Mail, the local daily. The author help to promote the event.*

In This Issue

WMREC Lambs: A Progress Report

By Susan Schoenian

There are sixty-four lambs in our comparison study of ram, wether, and short-scrotum lambs: 21 ram,18 short-scrotum, and 25 wether. One lamb had to be removed from the study for health reasons. The study is a repeat of last year. So far, the lambs are gaining well. The ram and short-scrotum lambs are gaining faster than the wether lambs, 13% and 7% more, respectively.

The lambs are consuming a combination of pasture, hay, and grain. The pastures are a mixture of cool and warm season grasses, legumes, and forbs. Grain is being hand-fed twice daily at 2-3 percent of body weight. It is a balanced mixture of whole barley, soybean meal, and minerals. There is a bale of grass hay under the shelter, for the lambs to nibble on.

Sex	No.	Start Wt.	77 d weight	ADG	ADG Ratio
Ram	21	45.0 ± 10.3	108.2 ± 18.3	0.819 ± 0.132	113%
Short scrotum	18	45.1 ± 10.9	104.8 ± 13.5	0.776 ± 0.071	107%
Wether	25	43.5 ± 10.9	99.4 ± 13.6	0.726 ± 0.074	100%
All	64	44.4 ± 10.6	103.8 ± 15.5	0.771 ± 0.103	100%

On August 6, the lambs will be evaluated for reproductive traits: mating desire (libido) and semen quality. The lambs are scheduled to be harvested on August 8 at Old Line Meats in Baltimore. Carcasses will be measured to determine differences among the groups. The meat (lamb) will be served to students and faculty in the dining halls at the University of Maryland. The pelts (skins) will be used in a youth entrepreneurship project.

To learn more, go to https://wmrecresearch.blogspot.com.

Lambs are grazing a mixture of cool and warm season grasses and legumes.

Bloat Can Be Life Threatening!

By Susan Schoenian

Bloat is when gas is trapped in the rumen and the animal is unable to belch. It can be life threatening.

Bloat is diagnosed by physical observation/examination of the animal. Affected animals show an enlargement of their upper left side caused by an accumulation in the fore stomachs (rumen-reticulum) of free gas or froth. They show varying degrees of distress. Eventually, they have difficulty breathing. Sometimes, affected animals are simply found dead. At the same time, bloat may be over-diagnosed, since it is a normal post-mortem change in ruminants.

Enlarged upper left side typical of bloat

There are several kinds of bloat. Frothy (or primary) bloat is nutritionally-derived. It is associated with the ingestion of leguminous forages (alfalfa and clovers), cereal crops, or lush pasture. Even turnout to wet grass pastures in the spring can result in bloat. Animals can bloat on dry hay, too; for example, a sudden change to rich alfalfa hay. Feeding of garden greens can be a cause of bloat.

Frothy bloat can occur with high grain diets, particularly when animals are not well-adapted to the diet. Free gas bloat occurs with grain diets. It can also be caused by a physical obstruction in the esophagus. While nursing lambs/kids seldom bloat, abomasal bloat is common in bottle-fed babies. Hand-feeding warm milk is the primary risk factor.

Continued on page 4

Maryland Pasture Field Day

Fall Pasture Planning and Maintenance

University of Maryland Extension is hosting an upcoming pasture field day on Wednesday, August 14, 2019 from 6-8:30 pm at the Western Maryland Research and Education Center (WMREC) in Keedysville.

This field day will focus on fall pasture planning and maintenance and is part of a larger MD/VA/WV Tri-State Pasture Education Series. Topics will include pasture evaluation and assessment, fall weed control, preparing for seeding, and stockpiling to extend the grazing season. Registration is FREE and can be completed at https://mdpasturefieldday.eventbrite.com. Please register by Monday, August 12.

Questions? Please contact Amanda Grev at agrev@umd.edu or 301-432-2767 x339.

We hope to see you there !

Bloat Can Be Life Threatening! (continued from page 3)

If/when bloat is suspected, timely intervention is important. Passage of a stomach tube can be effective at relieving free gas bloat, but it will not correct frothy bloat, unless the foam is broken down first. A variety of anti-foaming agents can be given as drenches to break down the foam. These include cooking oils, mineral oil, antacids (simethicone), and sodium bicarbonate (baking soda).

There are also commercial products that can be used. Forced exercise after the administration of anti-foaming agents will help break down the foam and promote the expulsion of gas. In more advanced cases, a trocar or needle (14 gauge) can be inserted into the rumen to relieve the pressure.

Most of the time, bloat can be prevented by adapting animals slowly to new diets. For example, when adapting animals to lush pastures, they should be turned out initially only for short periods of time on a full stomach of hay to limit consumption of green forage. In fact, whenever green feeds are fed, it is a good idea to offer dry hay.

Having pastures that are grass-dominant or have equal amounts of grass and legumes will help to reduce the risk of bloat. Legumes that contain condensed tannins (e.g. birdsfoot trefoil and sericea lespedeza) do not cause bloat because their protein is digested more slowly. Condensed tannins also have an inhibitory effect on gastro-intestinal parasites.

Any time grain is fed, it should be introduced slowly and only gradually increased, to give the rumen time to adjust. Whole grain diets are preferable to pelleted and especially ground rations. Poloxalene in the feed or mineral can help to prevent frothy bloat. Ionophores (Bovatec® and Rumensin®) in the feed or mineral can help to prevent bloat. Free choice baking soda is another way to help prevent bloat in sheep and goats.

This article was originally published in the Delmarva Farmer and Lancaster Farming.

SAVE THE DATE !

October 19, 2019

Maryland Small Ruminant Pasture, Grazing, and Browsing Conference

The first-ever Maryland Small Ruminant Pasture Grazing and Browsing Conference will be held Saturday, October 19, 9 am to 4 pm, at the University of Maryland's Western Maryland Research & Education Center in Keedysville.

Speakers will include Dr. Amanda Grev, Pasture Management Specialist, University of Maryland Extension; Matt Morris, Extension Educator, Frederick County; Erika Crowl, Extension Associate, Baltimore County; Maegan Purdue, Extension Associate, Worcester County; Jeff Semler, Extension Educator, Washington County; and Susan Schoenian, Sheep & Goat Specialist, University of Maryland Extension.

The registration fee is $35 per person. It includes refreshments, lunch, and a flash drive with resource materials. For more information and/or to register, go to https://2019grazingconference.eventbrite.com. To avoid paying credit card fees, the registration fee (payable the University of Maryland) can be sent to 2019 Grazing Conference, Western Maryland Research & Education Center, 18330 Keedysville Road, Keedysville, MD 21756. Be sure to include your contact information with your check.

Tapeworms recovered from the small intestines

Big Nasty Tapeworms

By Susan Schoenian

Tapeworms are unsightly. They are big nasty worms that reside in the intestines of their host. They are the only worm species that are visible in the manure of small ruminants. For this reason, they often cause great alarm to producers, especially newbies. Despite this, there is no consistent evidence that tapeworms cause production losses or ill health.

The tapeworm that most commonly affects sheep and goats is *Moniezia expansa*, often called the "milk tapeworm" because it infects mostly nursing lambs/kids. In fact, animals seem to develop immunity to tapeworms at a relatively young age, unlike roundworms (nematodes).

In appearance, tapeworms are flat and ribbon-like; hence their name. When eggs are passed in the manure, they look like small grains of cooked rice. You may also see an animal passing an entire tapeworm: a long "string" of nastiness. Tapeworm eggs (triangular in shape) can be observed in a fecal flotation, but a fecal test is not a good diagnostic tool, since eggs are not evenly dispersed in the manure, nor highly indicative of infection level.

Unlike most roundworms, tapeworms have an indirect life cycle, meaning another organism is involved. The intermediate host is a pasture (or grass) mite. Small ruminants get infected when they consume mites containing tapeworm larvae. The larvae can overwinter in infected mites. Sheep/goats kept in confinement, do not get tapeworms, as there is no source of infection.

While tapeworms don't usually cause significant problems, signs of (heavy) infection may include pot belly, dullness, poor growth, and diarrhea. Rarely, tapeworms can cause an intestinal blockage; thus, death.

Continued on page 7

SAVE THE DATE !

December 7, 2019

2019 Delmarva Small Ruminant Conference: All Worms All Day

Lincoln Memorial University in Ewing, Virginia, will host the 2019 Delmarva Small Ruminant Conference: All Worms All Day. It will be held Saturday, December 7. It is the third All Worms All Day Conference. The first conference was held in 2017 at Delaware State University. Last year's conference was hosted by the University of Maryland.

All topics will pertain to internal parasite (worms + coccidia) control in small ruminants. All speakers are members of the American Consortium for Small Ruminant Parasite Control (ACSRPC; wormx.info): Dr. Dahlia O'Brien, Virginia State University; Dr. Kwame Matthews, Delaware State University; Dr. E. Nelson Escobar, University of Maryland Eastern Shore; Dr. Niki Whitley, Fort Valley State University; and Susan Schoenian, University of Maryland.

The conference will feature concurrent sessions for adults and youth (age 14 and up). Continuing education credits are being sought for veterinarians and certified veterinary technicians.

For more information or registration details, contact Dr. Dahlia O'Brien at: dobrien@vsu.edu.

2019 Junior Sheep & Goat Skillathon: Frederick County Youth Win Big

Seventy-five youth from four states competed in the 2019 Junior Sheep & Goat Skillathon held May 5 at the Maryland Sheep & Wool Festival: 16 juniors (8-10), 34 intermediates (11-13), and 25 seniors (14-18). Youth from Frederick County -- Maryland and Virginia -- dominated the winner's circle.

Emily Vincent from Frederick County, Virginia was the first place junior. She had a score of 242/300 points or 81% correct answers. The average junior score was 178 points or 59% correct. The first place junior team was Frederick County, Maryland. Team members included Trennen Latham, Preston Clark, Josie Martin, and Ryan Martin.

For the second year in a row, Marie-Claire Des Rosier from Frederick County, Virginia was the first place intermediate. She had a score of 343/400 points or 86% correct answers. The average intermediate score was 232 points or 58% correct. The first place intermediate team was Frederick County, Virginia. Team members included Eddyn Molden, Kennah Kerns, Jackson Kelly, and Marie-Claire Des Rosier.

Addison Herbert from Frederick County, Maryland was the top-placing senior. She had a score of 426/500 points or 85% correct answers. The average senior score was 333 points or 67% correct. The first place senior team was Frederick County, Maryland. Team members included Addison Herbert, Jacyln Bryan, Jessica Martin, and Grace Ellis.

This year's stations included hay judging, meat identification, breed identification, feedstuff identification, equipment, wool judging and questions, predation (intermediates and seniors only), and reproduction (seniors only). Sheep judging had to be canceled because of the rainy weather. Youth achieved the highest scores for equipment (80-90%), while meat ID (37-48%) and hay judging (38-65%) proved to be the most challenging stations, especially for juniors and intermediates.

The Maryland Sheep Breeders Association has been a long-time supporter of the contest. They provide premiums and ribbons to the top 10 individuals in each age group and festival t-shirts to members of the top three teams in each age group.

Editor's note: Last year, the team from Maryland won the national 4-H livestock skillathon in Louisville, Kentucky.

Junior Skillathon Winners

Intermediate Skillathon Winners

Senior Skillathon Winners

Big Nasty Tapeworms (continued from page 5)

Tapeworm segments in the manure

Heavy infections may affect gut motility and predispose animals to enterotoxemia (overeating disease). Tapeworms are often blamed for problems (symptoms) that most likely have other causes.

As compared to roundworms, not many studies have been conducted with tapeworms. In fact, I am not aware of any with goats. Despite this, there is general consensus that tapeworms do not cause significant harm and there is no benefit to treating for them. According to most small ruminant parasitologists, treating specifically for tapeworms is unlikely to be beneficial. Instead, it is recommended that producers focus on the less visible worms that are likely doing much more harm (barber pole worm + coccidia).

However, if you decide you need to treat for tapeworms, praziquantel is the drug of choice. Praziquantel is not available in any form (in the US) for small ruminants. However, it is an ingredient in several deworming pastes for horses. Albendazole (Valbazen®) aids in the removal of tapeworms, but does not kill the heads of the worms. At its labeled dosage (for goats), fenbendazole (SafeGuard®) is not effective against tapes. Nor is it labeled. Any tapeworm removal needing extra label drugs requires veterinary involvement.

Dr. Ann Zajac from the VA-MD Regional College of Veterinary Medicine has written a very informative article on tapeworms: https://www.wormx.info/tapeworms.

This article was originally published in The Delmarva Farmer and Lancaster Farming.

FREE Fecal Egg Count Analysis

As part of a grant project, the University of Rhode Island is offering free fecal egg count analysis to sheep and goat producers in New England and other northeastern states: New York, New Jersey, Pennsylvania, Maryland, West Virginia, and Delaware.

The service is available to new or current members of the National Sheep Improvement program (NSIP). Fecal egg count data will be submitted to NSIP for calculation of FEC EBVs (estimated breeding values). The service is also available to non-NSIP members who have a history of problems with gastrointestinal nematodes and wish to implement on-farm selection for parasite resistance.

Samples will be accepted for analysis during the summer months (peak worm season). If interested, contact Holly Burdett or Dr. Katherine Petersson at urisheepandgoat@etal.uri.edu.

The Dirt on RoundUp®

By Matt Mortis

Recently, someone I know had a bag of wood chips for their grill and right on the bag it said, “This product is known to the State of California to cause cancer.” It’s a good thing we live in Maryland and not California or else we’d have been in trouble! In all seriousness, that bag of wood chips reminded me of a similar situation that is all over the radio and TV and that is the glyphosate/cancer relationship. I am by no means a health professional, but I do know a little bit about the reason this has come to be national news so I will try to outline that below.

First let me give some background on glyphosate. Glyphosate, which is the main ingredient in the herbicide RoundUp® (and countless generic versions) was first commercialized in the 1970s as a broad-spectrum herbicide, meaning it works on both grasses and broadleaf plants. The appeal was that it worked on many weeds, but had no residual activity in the soil as it was immediately decomposed in the soil into carbon dioxide, ammonia, and phosphoric acid by soil bacteria. It was one of the products that paved the way for no-till crop production. Yet, it did not gain widespread popularity until the advent of crops that were tolerant of its spray. I personally think this is when the disdain for glyphosate began as it was associated with “GMO” crops.

Fast forward to 2015 and The International Agency for Research on Cancer (IARC), a division of the World Health Organization, determined in 2015 that glyphosate is a probable human carcinogen. This lead to the August 2018 ruling by a California court that Monsanto was responsible for a worker’s cancer. My concern is that a jury came to this conclusion, not a group of scientists. The reason the IARC came to that conclusion is in the question they asked: Can glyphosate cause cancer under any circumstance? This probable carcinogen determination is what lead to the wave of lawsuits against Monsanto, the developer of RoundUp®. What they did not determine is the actual cancer risk a user of glyphosate may be exposed to. In essence, what is the risk of cancer from glyphosate to the user when used according to the label and in under normal circumstances? That determination would normally be made through risk assessment studies, of which there are many. The EPA and the European Food Safety Authority have both conducted risk assessments on glyphosate and found it unlikely to cause cancer in humans when used according to the label.

But let’s go back to the probable human carcinogen finding from The IARC. There are many things that fall also into that probable category: fried food, red meat (which must be a mistake), and late night work shifts. Even worse are the “known human carcinogens”: alcoholic beverages, sunlight, Chinese style salted fish, and air pollution among many others. I think what that is telling us is we should be drinking (moderately) in the shade! In all seriousness this means that there are lots of things that can cause cancer in high enough doses. We all know that sunlight can give us cancer so we take steps to minimize our risk like wearing clothes or putting on sunscreen. The same should be done with glyphosate. Use it in accordance with the label and science says your risk of cancer is extremely low.

My other question is this: why have many of the known human carcinogens we use in everyday life (gasoline anyone?) not received the same treatment as glyphosate? Is it because there is no unifying villain like Monsanto in the alcohol or salted fish industries for people to rally against?

Decades of science and studies have tried to find the definitive link between cancer and glyphosate, but have yet to yield any. If they do, I will be the first one to say something must be done. However, so far science has said the opposite. That is why I believe the proper use of this important chemical is not something we should spend a tremendous amount of time worrying about.

Matt Morris is the extension agent for Frederick County. He covers all areas of agriculture, with a focus on dairy/livestock and agronomy. You can contact him at (301) 600-3578 or mjmorris@umd.edu.

Editor’s note: It is common to spray fence lines with RoundUp®. Many feed crops are sprayed with RoundUp®.

2019 NAHMS Goat Study

The National Animal Health Monitoring System (NAHMS) Program Unit conducts national studies on the health and health management of US domestic livestock and poultry populations. The next goat study will be conducted in 2019. It will include anthelmintic testing.

Louisiana State University has entered into an agreement with USDA APHIS to evaluate the use of anthelmintics on US goat operations and to determine the prevalence of anthelmintic resistance in the US goat population. A total of approximately 700 goat operations will be targeted with about 4,500 goats to be sampled (twice) to determine anthelmintic resistance. The study will take place between July 1 and December 31, 2019.

Go to www.wormx.info to learn more about the goat study. Click on Resources and Timely Topics. It is the first article under 2019.

Best Practices Aim to Increase Productivity for Lamb Producers

Helping each sheep producer find ways to be more efficient plus take more control of flock productivity, both of which protect against price volatility, is the bottom-line reason for the *Best Practices to Increase Your Lamb Crop* fact sheets. The series is a joint effort of the American Lamb Board (ALB) and the American Sheep Industry Association's Let's Grow program.

Best practices are a cornerstone of many industries – from computer manufacturing to education – and guide processes to achieve a desired result. For the lamb industry, Productivity Best Practices identify ways to produce more with comparable resources, which is a critical component of profitability. After all, lambs sold per ewe is still the biggest influencer of profitability.

Even though sheep production practices in the U.S. vary widely, there are lamb crop best practices that will benefit every flock. Most sheep producers will be able to identify at least 3 of the 12 best practices that will help them gain efficiency and improve profitability. Key indicators have also been developed to help identify which lamb crop best practices will be most beneficial for various production styles.

The fact sheets can be download from the United States Lamb Resource Center at https://lambresourcecenter.com/production-resources/best-practice-resources/

Source: Northern Ag Network, June 13, 2019.

Editor's note: most of the information in the fact sheets is equally applicable to goat producers.

Sheep + Solar

Cornell University has received funding to document how sheep grazing may influence pollinator habitat and sequestration of soil carbon. Sheep will be grazed on solar array sites. The vegetation in these modified landscapes must be controlled to prevent solar panel shading. Grazing with sheep is an efficient, cost-effective way to control the vegetation and keep the land in agricultural production.

The American Solar Grazing Association promotes the grazing sheep on solar installations. Their web site is https://www.solargrazing.org/

New Meat Processing Facility in Southern Maryland

The St. Mary's County government won a $1 million grant from the Southern Maryland Agricultural Development Commission (SMADC) to build an agricultural center and meat processing facility for regional farmers.

Many Southern Maryland farmers have complained for years about the inconvenience and long distance required to move livestock to overburdened processing facilities in rural Virginia, northern Maryland and the Eastern Shore. The new agricultural center, working with a nearby Amish slaughterhouse soon to open in Mechanicsville, would provide a local destination for farmers looking to slaughter, process and package their meat for distribution into the Washington metro area.

In addition to the meat processing facility, which will have butchery and value-added equipment, the agricultural center will include cold storage for farmers, warehousing for food distribution, a commercial kitchen, a retail store and land to support new farmers. Space for agricultural education, research and equipment rental storage would also be included.

Commission members and local government officials at the meeting said the agricultural center should motivate meat producers in the region to grow their operations. Some farms in the region, which includes St. Mary's, Charles, Calvert, Anne Arundel and Prince George's counties, want to produce more meat, but haven't due to the inconvenience of getting it processed. SMADC also views the center as a way to bolster Southern Maryland Meats, a marketing label the commission created to promote and sell the region's producers.

The state founded SMADC in the wake of a master settlement between state governments and the tobacco industry in the mid-1990s.

Source: Delmarva Farmer, May 3, 2019. Reprinted with permission.

Read full article at www.americanfarmpublications.com

Maryland-Delaware Forage Council

Most states have a forage council that is affiliated with the American Forage & Grassland Council. The Maryland-Delaware Forage Council was organized in 1983 to serve as a forum for forages and grasslands in both states and to serve as the integrator and coordinator of the numerous businesses, organizations, and service agencies associated with the forage industry.

https://www.foragecouncil.com

Test Your Knowledge

How is Bloat diagnosed?

Answer: Physical observation/examination of the animal. Animals show an enlargement of their upper left side.

True or False

Tapeworms do not usually cause significant problems.

Answer: True

Upcoming Events

August 3, 2019
Pennsylvania Performance Tested Ram
& Meat Goat Buck Sale
Pennsylvania Livestock Evaluation Center,
Furnace, Pennsylvania
Info: Greg Hubbard at (814) 238-2527
or ghubbard@pa.gov

August 14, 2019
Maryland Pasture Field Day
Western Maryland Research & Education
Center, Keedysville Maryland
Info: https://mdpasturefieldday.eventbrite.com

September 20, 2019
Southwest Virginia Ram Test Sale & Field Day
Southwest Virginia Research & Extension
Center, Glade Spring, Virginia
Info: Lee Wright at (276) 944-2200 or lrite@vt.edu

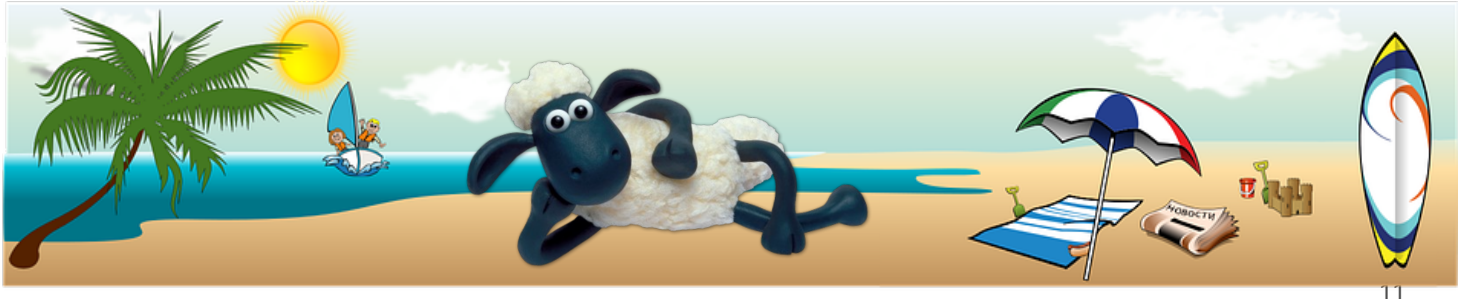
October 19, 2019
Small Ruminant Pasture,
Grazing & Browsing Conference
Western Maryland Research & Education
Center, Keedysville, Maryland
Info: Susan Schoenian at sschoen@umd.edu or
(301) 432-2767 x343
Register at https://2019twilightgrazing.eventbrite.com

December 7, 2019
Delmarva Small Ruminant Conference
All Worms All Day
Info: Dahlia O'Brien at dobrien@vsu.edu

More Information On Sheep & Goats Can Be Accessed At:

http://www.sheepandgoat.com
http://www.acsrpc.org or wormx.info
http://wmrecresearch..blogspot.com
http://www.sheep101.info
https://www.facebook.com/MDSmall
http://issuu.com/mdsheepgoat
https://www.youtube.com/c/MarylandExtensionSmallRuminantProgram
https://www.instagram.com/umesheepgoat/

Summer



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