Twilight Tour & Tasting

The 5th Twilight Tour & Tasting will be held Wednesday, June 19, 4 to 7 p.m., at the Washington County Agriculture Education Center (in Boonsboro) and Western Maryland Research & Education Center (in Keedysville).

The purpose of the Twilight Tour & Tasting is to showcase all things sheep and goat. The event is open to the public. Participants will have the opportunity to sample dishes made from lamb, goat meat, and cheese. Arik Mills, co-owner of Rik’s Café (in Hagerstown) will be the featured chef.

Shepherds Manor Creamery, Maryland’s first and only licensed sheep dairy, and Caprikorn Farms, a licensed goat dairy, will showcase their small ruminant dairy products. Patty Sanville from Budding Creek Farm in Frederick will give a fiber demonstration. Browsing Green Goats from Southern Maryland will discuss their business of leasing goats for vegetation control.

Besides learning about the products and services provided by sheep and goats, participants can go on a wagon tour of the Western Maryland Research & Education Center to learn about the sheep research being conducted by the University of Maryland.

Pre-registration is required for the event. Attendance will be capped at approximately 100. The registration deadline is June 1. The registration fee is $10 per person. Children under the age of 10 will be admitted for free.

To register, go to https://2019twilighttour.eventbrite.com. You can also register by mail by sending your name(s), contact information, and check (payable to University of Maryland) to Twilight Tour & Tasting, Western Maryland Research & Education Center, 18330 Keedysville Road, Keedysville, MD 21756.
Amanda Grev joined the University of Maryland Extension team in January and currently serves as the Pasture Management Specialist at the University of Maryland’s Western Maryland Research & Education Center. Originally from Rochester, Minnesota, Amanda completed her undergraduate degree at North Dakota State University, with a double major in Equine and Animal Science.

After graduation, she completed an internship abroad at a veterinary clinic in Brisbane, Australia, followed by a research internship at Kentucky Equine Research in Versailles, Kentucky. Amanda received her M.S. and Ph.D. in Animal Science from the University of Minnesota, where her research focused on the interaction between animal nutrition, forages, and pasture management.

In her spare time, Amanda enjoys spending time with friends, reading, camping, horseback riding, and hiking with her German Shorthair Pointer, Rue.

D.F. Crosley’s Sore Mouth Relief

D.F. Crosley’s Sore Mouth Relief is an evolutionary anti-microbial formula that effectively controls many forms of fungus and bacteria. It helps to eradicate and prevent secondary infections that are often present with the sore mouth virus. Sore Mouth Relief’s active ingredients include zinc ion and thyme oil. These ingredients are recognized as safe by the FDA.

D.F. Crosley’s Sore Mouth Relief can be purchase from Mid-States Wool Growers at midstates.com.

BioWorma® with Livamol®

BioWorma® with Livamol® is a feed supplement that controls the spread of parasitic larvae in the pasture. Livamol® with BioWorma® contains a naturally-occurring fungus that captures and consumes infective worm larvae (including chemical and anthelmintic resistant larvae) within the manure of grazing animals. BioWorma® is effective when fed to sheep, goats, cattle, horses and others—including deer, alpacas and zoo animals.

Premier 1 Supplies is the first US distributor of BioWorma® with Livamol®.

https://www.premier1supplies.com/p/livamol-with-bioworma

To learn more about BioWorma®, go to www.bioworma.com or www.wormx.info.

New Scrapie Rule Published

A long-awaited scrapie rule was recently published in the Federal Register. The rule, which was first proposed in 2015 by the US Department of Agriculture Animal and Plant Health Inspection Service, has been anticipated by the American sheep and goat industry since 2016.

For the most part, the industry will not notice much of a difference in the scrapie eradication program, but some segments will see a change. Particularly, changes will be noticed by goat producers and those moving animals in slaughter channels or transporting unidentified sheep or goats.

Importantly, the rule incorporates into regulation APHIS’ long-standing policy to use genetic testing to identify genetically resistant or less susceptible sheep for exemption from destruction and as qualifying for interstate movement. The rule took effect on April 24, 2019.

Continued on page 3 - ID & Record Requirements
Identification & Record Requirements in Interstate Commerce

A foundational component of the scrapie eradication program is the ability to trace diseased animals to their flock of origin. The new rule makes the identification and recordkeeping requirements for goat owners consistent with those requirements that sheep owners have followed for many years. Like sheep producers, producers of goats for meat or fiber and slaughter goats more than 18 months of age will be required to officially identify their animals to their flocks of birth or flocks of origin, and to maintain certain identification records for five years. There is flexibility in the type of official identification that can be used, but the device or method must be approved in accordance with USDA regulations.

A sheep or goat must be identified to its flock of origin and to its flock of birth by the owner of the animal (or his or her agent) before commingling the animal with sheep or goats from any other flock of origin. This includes unloading of the animal at a livestock facility approved to accept unidentified sheep or goats and that has agreed to act as an agent for the owner to apply official identification. The animal must be identified prior to commingling with other animals from other flocks of origin. When transporting unidentified sheep, the owner or the owner’s agent must have an owner/hauler statement that contains the information needed for the livestock facility to officially identify the animals to their flock of origin and when required their flock of birth. Ownership changes also require the sheep and goats to have official identification.

APHIS notes that if the flock of birth or flock of origin is not known because the animal changed ownership while it was exempted from flock of origin identification requirements, the animal may be moved interstate with individual animal identification that is only traceable to the state of origin and to the owner of the animals at the time they were so identified. However, to use this exemption the person applying the

The Lambs Are Here!

Sixty-seven lambs (East Friesian x Lacaune) were delivered to the University of Maryland’s Western Maryland Research & Education Center (in Keedysville) on April 24. This year’s lamb research project will be a repeat of last year’s comparison study of ram, wether, and short-scrotum “rams.” The lambs will be evaluated for growth, carcass characteristics, and reproductive traits.

Two youth programs will be held in conjunction with project: 4-H small ruminant research academy and 4-H entrepreneurship project. The University of Maryland has agreed to purchase all of the lambs to serve in their dining halls. Last year, the lamb was featured in the university’s Fall Harvest Festival, which highlighted local food.

To learn more about the project, visit the blot at https://wmrecresearch.blogspot.com.
Identification & Record Requirements in Interstate Commerce (continued from page 3)

Identification must have supporting documentation indicating that the animals were born and had resided throughout their life in the state.

Sheep and goat producers who are new to the program and are requesting their flock identification number for the first time may receive some assistance in obtaining tags. Currently, APHIS will provide up to 80 plastic flock ID tags free-of-charge to producers who have not received free tags from APHIS in the past. APHIS will discontinue the availability of no-cost metal tags for producers. For more information, visit USDA’s Sheep and Goat Identification page on their website: https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/animal-disease-information/sheep-and-goat-health/national-scrapie-eradication-program. To request official sheep and goat tags, a flock/ premises ID or both, call 1-866-USDA-Tag (866-873-2824).

Owner/Hauler Statements

One of the purposes for the changes to the current scrapie eradication program is to ensure that all potential pockets of infection are captured so that the United States can be officially declared free of scrapie. Full eradication of the disease will ultimately reduce producer costs and improve trade opportunities for American sheep and goat products.

A key part to this effort is identifying all sheep and goats that are moved in interstate commerce. Fortunately, the majority of sheep and goats that are moved in interstate commerce are already identified back to their flocks of origin and birth, but there are some populations that have not been previously included.

The new regulation makes some changes to capture animals that previously were not required to be identified.

APHIS will now require that those individuals or their agents who move unidentified sheep or goats to a market or other premises where they will then be identified and those moving animals in slaughter channels to have an owner/hauler statement that indicates specific information needed for official identification and recordkeeping. This includes the name, address and phone number of the owner and the hauler (if different), the date the animals were moved, the flock identification number or the PIN that is assigned to the flock or premises of the animals, the number of animals, and the species, breed and class of animals. If breed is unknown, the face color for sheep must be recorded and for goats, the type (milk, fiber or meat) must be recorded.

The name and address of point of origin, if different from the owner address, and the destination address must also be included in the owner/hauler statement. If moving individually unidentified animals or other animals required to move with a group/lot identification number, the group/lot identification number and any information required to officially identify the animals must be included on the owner/hauler statement.

For animals in slaughter channels, the owner/hauler statement must indicate that the animals are in slaughter channels (except wethers that are less than 18 months of age). An owner/hauler statement is not required if the animals are not in slaughter channels and are officially identified or are traveling with an Interstate Certificate of Veterinary Inspection, commonly called a health certificate. Animals moved from one premises owned by the producer across state lines to another premises owned or leased by the producer – such as for grazing – will need an owner/hauler statement unless an ICVI is required.

Source: American Sheep Industry Association (sheepusa.org)
SAVE THE DATE!

December 7, 2019

Delmarva Small Ruminant Conference: All Worms All Day

The Delmarva Small Ruminant Conference All Worms All Day will be held for a third time in Southwest Virginia on Saturday, December 7. The first conference was held in 2017 at Delaware State University. Last year’s conference was held in Western Maryland.

All topics covered in the all-day conference will pertain to internal parasite (worms + coccidia) control in small ruminants. Continuing education credits will be available for veterinarians and certified veterinary technicians. A youth program will be offered.

All speakers are members of the American Consortium for Small Ruminant Parasite Control (ACSRPC; www.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 (Georgia); and Susan Schoenian, University of Maryland.

More information will be available in the next newsletter.

Coccidiosis in Lambs and Kids

by Susan Schoenian

Coccidiosis is one of the most economically-important diseases of sheep and goats. It is caused by a single cell protozoan parasite of the genus *Eimeria*. With few exceptions, coccidia are host-specific. There is no cross-infection. In other words, even sheep and goats are affected by different species of coccidia.

In addition, while sheep and goats are affected by many different species of coccidia, only a few are known to be highly pathogenic. The others do not cause disease or symptoms.

At some point in their life, almost all sheep and goats are exposed to coccidia and shed oocysts (eggs) in their feces. Ideally, young lambs/kids are exposed to low levels of coccidia and develop immunity. As compared to worm parasites, resistance to coccidia develops at an earlier age. Disease only results when exposure to infective oocysts overwhelms the animal’s immune system.

Scours (diarrhea) is the most common symptom of coccidiosis, though it is not always present. Any time young lambs and kids are doing poorly and experiencing digestive problems, coccidiosis should be suspected. Coccidiosis is most commonly observed in young lambs/kids (1-6 months of age) being raised under intensive management conditions, usually confinement, but not always. Coccidiosis outbreaks can also occur in lambs being raised on pasture.

Continued on page 7
USDA NASS reports document the size of the US sheep and goat industry, as well as industry trends. A sheep and goat inventory is published annually. Several years ago, this report stopped reporting data specific to Maryland. Maryland is now lumped into “other states.” Every five years, a National Census of Agriculture is conducted. This report provides data on every county and state in the US. Every plot of land that produces $1000 or more in income is counted.

**Annual sheep and goat report: Inventories Decline 1%**

**Sheep**
The sheep and lamb inventory on January 1, 2019, was 5.23 million head, down 1% from 2018. The breeding sheep inventory was 3.82 million head, also down 1%. The 2018 lamb crop was 3.24 million head, up slightly from 2017. The 2018 lambing rate was 107 lambs per 100 ewes. This is a crude estimate of the national average lambing percentage.

Wool production in 2018 totaled 24.4 million pounds, down 2% from 2017. The number of sheep and lambs shorn was 3.37 million head, also down 2%. The average fleece weight was 7.2 pounds, unchanged from 2017. The average price paid for wool in 2018 was $1.75 per pound. The total value of wool produced in the US in 2018 was $42.8 million, a 16% increase from 2017.

**Goats**
The goat and kid inventory on January 1, 2019, was 2.62 million head, down 1% from 2018. The breeding goat inventory was 2.15 million head, also down 1%. The 2018 kid crop was 1.64 million head.

Meat and other goats totaled 2.06 million head on January 1, 2019, down 1% from 2018. The milk goat inventory was up 2% to 430,000 head. The Angora goat population totaled 137,000 head, 5% less than 2018.

Mohair production was 755,000 pounds in 2018. One hundred and thirty-three thousand head were shorn. The average weight of the clip was 5.7 pounds. The mohair price in 2018 was $5.25 per pound. The total value of mohair produced in the US was $3.96 million.

**Other states**
In “other states,” the sheep and lamb inventory increased 3%, from 155,000 to 160,000 head. The

*Continued on page 10*
Sub-clinical coccidiosis often goes unnoticed, as clinical signs are not usually apparent. Diagnosis of coccidiosis is based on epidemiology (who, when, and where), clinical signs, fecal analysis, and post-mortem exams. Fecal oocyst counts can be misleading, as clinical signs can be present with low oocyst counts and vice versa. The interpretation of fecal oocyst counts is further complicated by the fact that not all coccidia species are pathogenic. A post-mortem is the most accurate method of diagnosis. Intestinal lesions are indicative of disease. Response to treatment can also be indicative of an accurate diagnosis.

Prevention
Disease prevention starts with good hygiene, management, and nutrition. Coccidiostats can be added to the mineral, feed, water, or milk replacer to help prevent disease outbreaks. Lasalocid (Bovatec®) is approved for use in confined sheep. Monensin (Rumensin®) is approved for use in confined goats. Decoquinate (Deccox®) can be fed to young, non-lactating sheep and goats. It is included in some milk replacers.

The effectiveness of coccidiostats depends on two factors: timing and dosage. Coccidiostats need to be fed early in the coccidia life cycle, before the onset of clinical signs (usually 3-4 weeks ahead of time). Coccidiostats must be consumed at sufficient (labeled) dosages in order to be effective. Consumption of coccidiostats by nursing lambs/kids can be a limiting factor.

Treatment
Amprolium (Corid®) has been used to both prevent and treat coccidiosis in sheep and goats. Because it acts late in the life cycle, it is considered to be more effective as a treatment. Corid® is added to drinking water or administered as a drench. Sulfanamides (sulfa antibiotics) have also been used to treat coccidiosis in sheep and goats. Like Corid®, they are added to the drinking water or administered as a drench. Drenching is always better because sick animals often do not drink enough water.

No drugs are FDA-approved to treat coccidiosis in sheep and lambs. Extra label drug use is required. While Corid® can be purchased over-the-counter, it is not approved for sheep and goats; veterinary involvement is required. As a result of the Veterinary Feed Directive (2017), antibiotics that are put in drinking water must be obtained from a veterinarian. Sulfa antibiotics must be purchased from a veterinarian and used according to their recommendations.

Natural control
Sericea lespedeza has demonstrated effectiveness as a natural control for coccidia. Unfortunately, it is not widely available. The effectiveness of essential oils (e.g. oregano) is still being investigated as a potential natural control for coccidia. There is no vaccine for coccidia (for sheep/goats). There is some evidence that some breeds and individuals are more resistant to coccidia infections and that heritabilities are similar to nematode (worm) resistance.

Source: Adapted from Coccidiosis: Sheep 201: A Beginner’s Guide to Raising Sheep

Read full article at www.sheep101.info/201/coccidiosis.html
Youth Activities

Junior Sheep & Goat Skillathon

The Junior Sheep & Goat Skillathon will be held Sunday, May 5, 8 a.m. to 2 p.m., at the Maryland Sheep & Wool Festival. The festival is always held the first full weekend of May at the Howard County Fairgrounds in West Friendship. Parking is free, but there is a small entrance fee.

The skillathon is open to individual and teams of youth between the ages of 8 and 18. Youth compete according to their age as of January 1, 2019: junior, 8-10; intermediate, 11-13; and senior, 14-18. Three to four youth from the same county or state may compete as a team.

Stations for the 2019 skillathon will include the following:

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Junior stations typically include 10 questions/items; intermediates, 15; and seniors, 20. The Predation and Reproduction stations are new for 2019. There will be no written test.

The Maryland Sheep Breeders Association provides ribbons and premiums to the top 10 individuals in each age category. Festival t-shirts are awarded to the members of the top 3 teams in each age category.

Continued on page 9
New Fact Sheets

The American Consortium for Small Ruminant Parasite Control (ACSRPC; wormx.info) is publishing a fact sheet series entitled “Best Management Practices to Control Internal Parasites in Small Ruminants.” The fact sheets are written and reviewed by members of the consortium. So far, nine fact sheets have been published. The latest fact sheets include: Genetic Selection: Using Cross-breeding and Estimated Breeding Values (by Scott Bowdridge and Andrew Weaver), West Virginia University; Proper Use of Dewormers (by Lisa Williamson, University of Georgia); and Management of Coccidia (by Kwame Matthews, Delaware State University).

Several more fact sheets are in the works: targeted selective treatment, on-farm selection for parasite resistance, the periparturient egg rise, and common myths.

The fact sheets are available at https://www.wormx.info/bmp

Canadian Fact Sheets on Internal Parasitism Management

The Centre d’expertise en production ovine du Quebec (CEPOQ) has also published a series of seven fact sheets on internal parasitism management. The French fact sheets have been translated into English and are available for download as PDF files at https://www.cepoq.com/nouvelle.php?nouv=95.

Youth Activities (continued from page 8)

Registration for the skillathon is via EventBrite at https://2019skillathon.eventbrite.com. There is a $5 registration fee to cover the cost of lunch (pizza + sodas).

Two youth programs will be held in conjunction with this year’s lamb research (at the Western Maryland Research & Education Center): 4-H Small Ruminant Research Academy and 4-H Entrepreneurship Program.

4-H Small Ruminant Research Academy

The 4-H Small Ruminant Research Academy is open to older 4-H youth between the ages of 15 and 18. In this program, youth will be directly involved with the sheep research program at WMREC. They will conduct their own literature review and form a hypothesis. They will observe and assist in the collection of data. They will put together a scientific poster to be exhibited at the Maryland State Fair. In 2018, three youth participated in the pilot program. The program will be expanded in 2019; enrollment is limited.

4-H Entrepreneurship Program

The 4-H Entrepreneurship Program is new. It is open to youth between the ages of 13 and 18. In this project, youth will develop their own marketable product: finished sheep pelts from the lambs in the research project. They will learn how to write a business and marketing plan and manage finances. The project should generate a profit for each of the youth involved.

For information and an application for either program, contact Ashley Travis at ashley90@umd.edu or (301) 791-1304. Applications are due May 8.
number of breeding sheep increased 6%, from 92,000 to 94,000 ewes. The dairy goat inventory increased 6% in other states, from 31,000 to 33,000 head. There was a 3% increase in the inventory of meat and other goats in other states.

Source: https://usda.library.cornell.edu/ (February 2019)

**Ag Census: More Sheep and Goats in Maryland**

**Sheep**
In 2017, there were 23,399 sheep and lambs in Maryland, compared to 19,265 head in 2012 – an increase of over 21%. There were 925 sheep farms in the state in 2017, compared to 663 in 2012 – an increase of almost 40%. The three counties with the most sheep (by far) were Frederick (4,684), Carroll (4,100), and Washington (3,775). According to the census, the average flock size in Maryland is 25 head.

The census showed 101,387 sheep farms in the United States – a rise of more than 13,000 producers since the last census. This is the first time since the 1969 census that the United States has shown more than 100,000 active sheep producers.

**Goats**
There are fewer goats in Maryland compared to sheep, but they are more evenly distributed. The goat inventory in the 2017 census was 13,833 head, compared to 10,745 head in 2012 – an increase of almost 29%. There were 1,085 goat farms in Maryland in 2017, compared to 903 in 2012 – a 20% increase. The counties with the most goats are Frederick (1,995), Washington (1,842), Montgomery (1,526), and Carroll (1,072). The average herd size is only 13 goats.

Source: https://www.nass.usda.gov/AgCensus/ (April 2019)

**Test Your Knowledge**

What is the most common symptom of Coccidiosis?

Answer: Scours

**True or False**

Only sheep must be identified to its flock of origin & to its flock of birth by the owner of animal before commingling with other flock

Answer: False
Upcoming Events

May 4-5, 2019
Maryland Sheep & Wool Festival
Howard County Fairgrounds, West Friendship, MD
Info: www.sheepandwool.org

May 5, 2019
Junior Sheep & Goat Skillathon
Howard County Fairgrounds, West Friendship, MD
Info: https://www.sheepandgoat.com/skillathon
Register at https://2019skillathon.eventbrite.com

June 19, 2019
Twilight Tour & Tasting
Washington County Ag Center, Boonsboro, MD
Info: Susan Schoenian at sschoen@umd.edu or (301) 432-2767 x343
Register at https://2019twilighttour.eventbrite.com

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

September 20, 2019
Southwest Virginia Ram Test Sale & Field Day
Southwest Virginia Research & Extension Center, Glade Spring, VA
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, MD
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

http://www.sheepandgoat.com/ http://www.acsrpc.org or wormx.info
http://wmrecresearchblogspot.com https://www.youtube.com/c/MarylandExtensionSmallRuminantProgram
Wild & Woolly is published quarterly by the University of Maryland Extension. It is written and edited by Susan Schoenian, Sheep and Goat Specialist, at the Western Maryland Research & Education Center (WMREC), 18330 Keedysville Road, Keedysville, MD, tel. (301) 432-2767 x343 or 315, fax (301) 432-4089; e-mail: sschoen@umd.edu or Pamela Thomas, Administrative Assistant, pthomas@umd.edu. The cost of receiving the newsletter by mail is $10 per year, payable to the University of Maryland. The newsletter can be accessed for free on the Internet at http://www.sheepandgoat.com. Subscribers to the newsletter listserv will receive an e-mail message when a new newsletter has been posted to the web. To subscribe, send an e-mail message to listserv@listserv.umd.edu. In the body of the message, type subscribe sheepgoatnews.

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