



The Producer

Maine Sheep Breeders Quarterly Newsletter

FALL 2016



Dear Sheep Breeders,

This summer has been very challenging with regard to the weather. We did not receive nearly enough rain, which has impacted all of our crops, including hay for our animals. If you have hay or straw for sale, or if you need to purchase hay or straw, please take a look at U Maine Extension's Hay Directory <https://extension.umaine.edu/livestock/hay/>

If you want to get your hay analyzed, please take a look at U Maine Extension's video about Testing Forage Quality and why it is important https://www.youtube.com/watch?v=rP_nOx4OHFU

Late summer and fall also means fair season. Good luck to you if you are showing your sheep! We hope you can get out and meet some of your fellow sheep breeders and share experiences with each other.

Some MSBA news:

Cindy Green has resigned from the board and as Vice-President. On behalf of MSBA, we thank Cindy for her service and wish her the best for her future endeavors.

Please note, that our annual MSBA meeting has been moved to the Ag Trade Show in January 2017. Details about the program, date and time will be provided in the next newsletter, as well as via email.

Please don't hesitate to reach out to us and the other board members if you have any questions, comments, concerns, suggestions. Contact information can be found on p. 7, as well as online at <http://mainesheepbreeders.com/MSBA-Board-Members.shtml>

We wish you a happy fall, and a successful breeding season.

Dorothee Grimm and Leah Hoenen, editors



Your ...

Article

Classified Ad

Event

Photograph

Question

Comment

Request

... could be here

If you would like to contribute to this quarterly newsletter in any form,
please contact us:

Leah Hoenen, leah.hoenen@gmail.com

Dorothee Grimm, dorothee.grimm@web.de

Meet the MSBA Board Members (Part 3)



Diane Schivera

I live in Appleton with cows and a donkey and laying hens. I don't have sheep of my own. As MOFGA's Organic Livestock Specialist I work with people who have sheep.

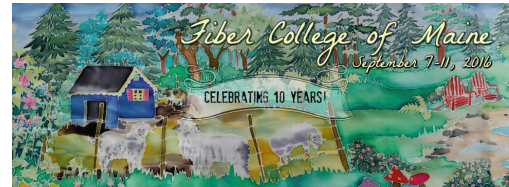
My goal for MSBA is to educate sheep farmers, to share sheep farmers' knowledge with each other and the public, and to promote Maine sheep products.

This concludes the introduction of our current board members.

Unfortunately, we were unable to feature long time board member Joe Miller, as he has been battling cancer. On behalf of MSBA we wish him all the best and speedy recovery!

Calendar of Events and MSBA Board of Directors (BOD) Meetings 2016

September 7-11: Fiber College of Maine, Searsport. More information at <http://www.fibercollege.org/>



Sept. 17-18: Finger Lakes Fiber Festival, Hemlock, NY. More information at www.gvhg.org/fiber-fest

September 17: Natural Dyes for Wool with Marty Elkin, Shaker Village, New Gloucester. Register at maineshakers.com

September 23-25: Common Ground Country Fair, Unity. More information at <http://mofga.org/TheFair/tabid/135/Default.aspx>

Clare Thomas-Pino is calling out to all Maine sheep producers to send her information for her sheep presentation: pictures to show the diversity of breeds of sheep in Maine, what people are doing with sheep products, pictures of handling of sheep, of sheep in barns, of lambing, pasture, etc.

Please email your pictures to Clare_Thomas@umit.maine.edu Thank you in advance for your contributions!

September 27, 7pm: BOD meeting via conference call. The call in phone number will be distributed prior to the meeting. BOD meetings are open to MSBA members. If you are interested in participating, please contact Gary Anderson garya@maine.edu

September 28: Dyeing to Spin: Space Dyed Roving with Linda Clutterbuck, A Wrinkle in Thyme Farm, Sumner. More information at <http://www.awrinkleinthymefarm.com/>

October 1-2: Vermont Sheep & Wool Festival, Tunbridge, VT. More information at vtsheepandwoolfest.com

October 9: Open Creamery Day. Various creameries throughout Maine. More information at mainecheeseguild.org

October 15-16: New York State Sheep & Wool Festival, Rhinebeck, NY. More information at www.sheepandwool.com

October 16, 11am-5pm: Maine Cheese Festival, Savage Oakes Vineyard and Winery, 174 Barrett Hill Rd, Union, ME. Enjoy Maine made cheeses from sheep's, goats' and cows' milk, meet the cheese makers. More information at mainecheeseguild.org

October 22: Sheep & Goat parasitology seminar. Other health topics like scrapie will be included. With Drs. Anne Lichtenwalner, Gary Anderson, James Weber. Location and time TBD. More information will be provided via email as it becomes available.

The topics will be familiar but the content will be new: worm data from our SARE study and new recommendations, CL data from our SARE study and follow up, along with new research at UM, scrapie recommendations summarized and a chance to discuss the program, along with info on integrating scrapie resistance genetics into your flock.

October 28-30: Fall Yarn and Yoga Retreat, with yoga instructor Wendy Youmans, A Wrinkle in Thyme Farm, Sumner. More information at <http://www.awrinkleinthymefarm.com/>

Please check the MSBA website and Facebook page frequently for updates to the calendar www.mainesheepbreeders.com

What Sheep, Goat, and Cattle Producers Need to Know About Dewormers

By Dr. James E. Miller and Dorothee Grimm

On June 23, Dr. Miller from Louisiana State University gave another talk in his annual series of talks on internal parasites in ruminants. This time, the focus was on dewormers.

Introduction

Major gastrointestinal helminths, like the barberpole worm *Haemonchus contortus*, occur in complex with nematodes and coccidia. Most have a direct life cycle, meaning they do not require an intermediate host or vector, with the exception of tapeworms. Helminth larvae can be hypobiotic: they 'hibernate' inside their host without causing damage during the cold season. Some dewormers do not work during this stage.

Animals become infected with helminths when grazing on infected pastures. Eggs are excreted by infected animals; larvae hatch and go through several stages of development. The infectious 3rd larval stage is ingested during grazing. This can happen even on dry lots with grassy spots. These grassy spots are called 'hot spots', because animals graze there and poop where they graze.

Management tools include pasture rotation, dry lot feeding, FAMACHA screening, selective deworming.

Which dewormers are currently available and approved?

Benzimidazoles:

- Short acting (activity lasts 2-3 days)
- Disrupt microtubules in worms, which leads to starvation

Imidazoles

- Short acting (activity lasts 1-2 days)
- Disrupt the enzyme acetylcholinesterase in worms, which leads to paralysis

Avermectins:

- Long acting (activity lasts 14-42 days, some up to 150 days)
- Disrupt the neurotransmitter GABA in worms, which leads to paralysis

In Australia and New Zealand (not US approved)

Amino-acetonitrile derivatives (AAD):

- Short acting (activity lasts 2-3 days)
- Similar action to imidazoles, but using a different receptor
- Very expensive

Spiroindoles:

- Same action as AAD

Combination of two to four anthelmintics

Which dewormers are approved for which animals?

Cattle: most dewormers for cattle are restricted in dairy cattle of breeding age, to avoid residues in milk. The only exceptions are fenbendazole, moxidectin, and rumatel. Pour on dewormers work well.

Goats: only two dewormers are currently approved for goats (incl. dairy goats) – fenbendazole (drench), rumatel (feed additive).

Sheep (incl. dairy sheep): thiabendazole, levamisole, ivermec, albendazole, moxidectin.

How did we get resistant worms?

- Too frequent treatment (6 to 12 times per year)
- Treating all animals at the same time, regardless of infection (no refugia of susceptible worms available)
- Treating just before moving animals to clean pasture or dry lot (no dilution of worm population with susceptible worms)
- Underdosing (not calculating dose per weight of animal accurately)

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Dewormers - continued from p. 4

How can we test the worms in our animals for susceptibility/resistance?

Fecal egg count reduction test (= FECRT): if you observe less than 95% reduction of eggs in feces of your animals after treatment with one particular dewormer, the worms are resistant to that dewormer.

DrenchRite: a group at the University of Georgia will test a batch of worms from your animals (in a fecal sample) for efficacy of your dewormer for ca. \$600.

How do we correctly administer the dewormer?

Drench: The drench must be placed past the back of the tongue, so it can flow passively down the esophagus into the rumen. If it is placed into the buccal cavity (front of mouth), the animal will swallow which may close the esophageal groove and thereby bypass the rumen. This makes the dewormer very ineffective, as it does not get into the rumen for proper mixing with ingesta to provide the necessary contact time with the worms in the abomasum and intestines. Restrict feed intake 12 to 24 hours prior to treatment to slow down ruminal activity, so the drug stays in the rumen longer and can increase contact time and act longer on the worms. The dose might need to be repeated after 12 hours to increase efficiency.

Pour on: Pour on dewormers work well in cattle, but are poorly absorbed in sheep and goats.

Feed additive: If feeding animals in a group, it is difficult to ensure that each animal receives the correct dose.

Alternatives and new developments

Breeding for resistance: Different breeds as well as different animals within a breed show more resistance to worms than others. Susceptible animals should be culled.

Copper oxide wire particles (COWP), copper sulfate drench: COWP pits the cuticle of worms, thus impairing the worm's ability to remain. Copper sulfate drench may show some activity, but copper sulfate should never be added to feed and fed over time. Sheep are susceptible to copper toxicity.

Condensed tannins containing plants: e.g. *Sericea lespedeza* (grows in warm climates), birdsfoot trefoil (grows in cool climates). Condensed tannins bind to proteins on worms – binding to proteins around the worm mouth leads to less food intake and starvation; binding to proteins around the worm vulva leads to fewer eggs being laid. The tannins have to be condensed tannins. Hydrolysable tannins, like in oaks, can be toxic to livestock.

Worm trapping fungi *Duddingtonia flagrans*: This treatment is still in the development stage, but has shown promising results. The animal is fed a daily supplement of fungal spores. They get excreted in the feces along with the worm eggs. As the eggs hatch into larvae, the spores grow hyphae with loops that are just the right size to physically trap in larvae that try to move through these loops in the feces. This is a long term treatment, as the fungi do not act inside the animals. The fungi act in the feces on pasture, preventing re-infection of animals.

Vaccine Barbervax: This vaccine is being sold in Australia with promising results. Multiple treatments per animal per year are needed. The vaccine is expensive and probably won't be available in the US.

Herbals: No herbal alternatives have proven effective to date in reducing worm counts. This includes garlic, pumpkin seeds, etc. Some herbs might lead to improvement in the condition of the animal, as they might increase appetite or make them feel better, but they do not reduce the worm infection.



Dr. Miller depicting a barber pole larva being caught 'mid step' in a fungal loop.

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Dorothee Grimm, co-editor

Sheep Bits

All About Feed www.allaboutfeed.net

This is a website with lots of information on nutrition during various life stages of livestock animals. The articles deal with topics like copper poisoning in sheep, or the effects of vitamin E during pregnancy.

You can set up a free account to give you unrestricted access to their archive, and to receive their newsletters.

Free Fecal Egg Count Analysis for Northeastern Small Ruminant Producers

New Approaches For Improving Integrated Parasite Control Strategies For Small Ruminants In The Northeast” is the title of a new USDA SARE grant (LNE15-342):

Northeastern small ruminant producers -

Do your small ruminants have problems with gastrointestinal worms?

Do you want to improve your parasite control?

Do you want to know which of your animals are most parasite resistant?

Do you want to learn how to select for traits like parasite resistance in your breeding program?

Do you live in one of the Northeastern United States?

We are offering free Fecal Egg Count (FEC) analysis to assist with Selective Breeding for Resistance to Gastrointestinal Nematodes.

Receive assistance in identifying the most parasite resistant sheep and goats in your flock/herd using FEC analysis combined with FAMACHA scores. Receive guidance on using results in individualized selective breeding decisions.

Criteria for participations - small ruminant producers that:

- ⇒ Live in one of the Northeast states New England, NY, NJ, PA, WV, MD, DE.
- ⇒ Have a history of problems with gastrointestinal nematode worms.
- ⇒ Are FAMACHA certified (online training program is available).
- ⇒ Are willing to share general herd/flock information/history.
- ⇒ Have the ability to obtain and ship fecal samples from your animals twice, 3 to 4 weeks apart.
- ⇒ Have not dewormed the animals to be tested 4 weeks prior to FEC analysis.

Producers interested in participating in this program please contact either Holly Burdett hburdett@uri.edu or Dr. Katherine Petersson kpetersson@uri.edu to obtain fecal sampling and shipping instructions. Samples will be accepted for analysis the remainder of September. As animals naturally acquire resistance to parasites as they age, we would encourage producers to focus on young replacement animals being considered for your breeding program for testing.

For more information including fact sheets and our demonstration video on fecal egg counting, visit our website at <http://web.uri.edu/sheepgoat>

Preparing Small Ruminants for Breeding Season; by Mike Metzger, Michigan State University

Most small ruminants have seasonal breeding patterns and the majority of them have their kids and lambs in the spring. This means that peak fertility is from late September through November. Ewes and does will be fertile for a time before and after peak fertility. Some management attention given to the females and males prior to the breeding season can pay dividends in terms of increased conception and potentially higher profits.

A major consideration is the reproductive health of the males. In addition to making sure that they are in good body condition, it is recommended that a breeding soundness exam (BSE) be conducted prior to breeding season. The BSE consists of a physical examination, a reproductive tract examination and a semen evaluation. Waiting until after the breeding season to discover a problem with your buck or ram that shows up in the form of an extended kidding/lambing season or open females is costly. Contact your veterinarian to schedule a BSE. It is money well spent.

Regardless of the production system and timing used on your farm, the nutritional status of the animals is a primary concern. The nutritional status of the animals at breeding is probably the primary factor that influences reproductive performance. Based on a body condition scale of 1 to 5, with 1 being very thin and 5 being fat, the goal should be to have the animals enter the breeding season somewhere around a 3.5 body condition score. One practice that is helpful with females that are below the target body condition score is to provide them with a diet high in energy that allows them to gain weight. This practice is termed flushing and should be done two to four weeks before breeding. The high energy diet can be provided by supplementing a high energy grain, such as corn, at a rate of one-half to one pound per animal per day, or by providing a high quality pasture. Flushing can result in an increased number of offspring and a decreased number of open females. If animals are to be flushed using a high quality pasture, take caution and use a grass pasture, not one with a high content of legumes such as clovers and alfalfa. Estrogens from the legumes can cause problems with estrus and fertility. Caution should be used on pastures that are over 50 percent legume for this reason. Animals should also be checked for internal parasites using the FAMACHA system and treated with a chemical dewormer as needed.



MSBA Board of Directors (BOD)

Elected, re-elected, nominated at the BOD meeting on November 24, 2015.

President: open

Vice President: Brant Miller, Bowdoinham, ME; bsmiller99@gmail.com

Secretary: Donna Flint, Oak Ridge Farm, Sanford, ME; donna.flint@maine.edu

Treasurer: Sally Farrell, Buxton, ME; sarah.s.farrell@maine.edu

Dorothee Grimm, Scarborough, ME; dorothee.grimm@web.de (appointed co-editor of The Producer)

Leah Hoenen, Windham, ME; leah.hoenen@gmail.com (appointed co-editor of The Producer)

Joe Miller, Rivercroft Farm, Starks, ME; rivercroft99@yahoo.com

Diane Schivera, Appleton, ME; dianes@mofga.org

Clare Thomas-Pino, Happynest Farm, Dover-Foxcroft, ME; clare_thomas@umit.maine.edu

Lisa Webster, North Star Sheep Farm, Windham, ME; Lisa@northstarsheepfarm.com

Gary Anderson, Orono, ME; garya@maine.edu (Maine Cooperative Extension; non-voting)

Cindy Kilgore, ME; Cindy.Kilgore@maine.gov (Maine Dept. of Agriculture, Conservation & Forestry; non-voting)

As a paid member of MSBA you receive this newsletter four times per year. Please make sure we have your correct email address/ mailing address on file. You are entitled to participate in the annual cooperative Wool Pool sale of fleece. You receive marketing and political representation at state, regional and national levels. You meet a great group of people who love to share information about their animals, their farm and their products, as well as information about breeding, management, and marketing techniques. Your MSBA membership automatically makes you a member of the American Sheep Industry Association (ASI), and you receive their monthly newsletter 'Sheepnews'.

The MSBA board of directors (BOD) meets six to eight times per year. We encourage membership involvement at the board of directors meetings, as well as on committees, and volunteering for one of our events and educational programs. Everyone has something to contribute. Please contact Donna Flint and volunteer a few hours for the good of all.

Join the Facebook group at <https://www.facebook.com/groups/331285921205/>



Maine Sheep Breeders Association

2016 Membership Application

Name _____ **Farm Name** _____

Mailing Address _____ **City, State, Zip** _____

Phone _____ **Website** _____ **E-mail** _____

Breeds of Sheep _____

MSBA Membership Year Is January 1 - December 31

2016 Membership Dues \$20 per Year/per Farm, Payable by January 31, 2016

Make check payable to: MSBA Treasurer

**Mail to: Sally Farrell
1606 Long Plains Rd
Buxton, ME 04093**





MSBA
Maine Sheep Breeders Association

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*East Friesian sheep
Northern Exposure Farm,
Holden, ME*