



The Producer

Maine Sheep Breeders Quarterly Newsletter

SUMMER 2014

Message from the MSBA President

As the late spring turns the corner into summer our thoughts turn to warm weather activities. Farm visits, open air markets and other public events across the state allow us to interact with each other and consumers. May it be meat, fiber, milk or a combo of all three the products of our labor are the highlight of the year for many. Get outdoors and enjoy the fruits of your winter work before we enter into haying season!

Lisa Webster
msba@me.com
207-838-9410



Maine Sheep Breeders' Association - by sheep people for sheep people.

As a paid member of MSBA you receive this newsletter four times per year. Please make sure we have your correct email/ 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, about breeding, management, and marketing techniques. Your MSBA membership includes membership in the American Sheep Industry Association (ASI), and you receive the monthly 'Sheepnews'. The MSBA board of directors (BOD) meets 6-8 times per year. We encourage membership involvement at the board of directors meetings, on committees, and volunteering for one of our events or educational programs. Everyone has something to contribute. Please contact Donna Flint or Richard Brzozowski and volunteer a few hours for the good of all.

facebook

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

Dear Sheep Breeders,

Welcome to the summer issue, which contains a lot of information about fibers, pastures, and diseases. Please do not hesitate to contact the authors for more information.



If you currently own sheep and graze them on pasture, you are eligible for FREE parasite testing from a group at the University of Maine. This summer's project is the start of a three-year research, teaching and outreach commitment to the small ruminant producers in Maine, New Hampshire and Vermont that will be funded through Northeast SARE. For details, please see Jim Weber's letter on p. 8.

Testing for CL will be available at the University of Maine Animal Health Lab (UM AHL) during 2014-2015 for goats and sheep at no cost for participants in the CL project. For more information, please see Anne Lichtenwalner's articles on p. 5-7.

Please remember - if you want to re-read an article from a previous newsletter issue, they are posted on the MSBA website <http://mainesheepbreeders.com/Producer.shtml>

I encourage you to contact me with your questions, ideas, and articles for publication in this newsletter; pictures of your farm or animals you like to share with other sheep breeders; your feedback, comments, and suggestions. Happy reading.

Dorothee Grimm, editor

MSBA Annual Wool Pool

Due to decreasing participation over the past years, there will be no wool drop off at the Fiber Frolic for the MSBA Wool Pool this year. As in years past, Bartlettyarns is purchasing the 2014 wool clip from MSBA members. Instead of dropping it off at the Fiber Frolic on one specific day, you can drop off your wool directly at Bartlettyarns in Harmony. Please see their instructions below:

BARTLETTYARNS is accepting wool. For the last several years we were proud to partner with the MSBA to purchase raw wool from Maine Producers. For several years we have paid higher than the National Greasy Wool Price in order to help support this industry. We are strongly committed to partnering with Maine farmers in this endeavor.

Although a bit disappointed there is no drop off this year, please know that Bartlettyarns is strongly committed to assisting farmers, be it an outright purchase of your wool or to custom process! Our custom processing is "not" always the "old" way. We have options for you to get your very own fiber back, be it roving or yarn. Check us OUT!

We have several different options with regard to wool purchase and/or exchange. Those most popular include out right purchase or custom exchange with a processing fee. However we have several other plans that might be a perfect fit for the producer. Details are located on our website at www.bartlettyarns.com. In addition, we have added a few new items available for the custom processing customer!

Our office hours are 8:30 am till 4:30 pm Monday, Tuesday, Wednesday and Friday. Thursday we are open until 6 pm and Saturday 10 am - 4 pm. We ask that wool be delivered prior to 2 pm. After 2 pm we cannot guarantee load off or weigh in services. Please call ahead.

Note: There is no off loading services on Saturday, so anyone dropping off wool must be prepared to off load and put into the warehouse themselves and we are not responsible if it is left outside or gets wet. We only have office staff on Saturday and only a receipt will be given for the number of bags received and exchanges for product cannot be done on this day. Sorry for any inconvenience this may cause.

We are planning a full service drop off Saturday in the near future, please stay tuned for more details. We will post on Facebook, on our web site and on the MSBA Facebook page.

We do not accept wool from hair breed sheep. A complete set of instructions is located on our website, www.bartlettyarns.com. We may also be reached at 207-683-2251. We thank you in advance for your patronage.

Bartlettyarns, Inc.

Maine Sheep Breeders Association

2014 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

2014 Membership Dues \$20 per Year/per Farm, Payable by January 31, 2014



Make check payable to: MSBA Treasurer

**Mail to: Richard Brzozowski
525 Cobb Bridge Rd
New Gloucester, ME 04260**

Fiber Processing - A Series

Part II

By Pogo Pogorelc

The long Maine winter is a good time to do the research and make arrangements to have your fiber processed. Don't wait until the barn and shed are full of raw fleeces - just tempting all of the vermin to attack them - to decide what to do with your clip.

Volume matters when looking for a processor, what your final product and costs will be. All services are charged per pound - in some cases raw weight (washing) and sometimes a combination of raw, in-process, and finished weights. If the mill has a minimum weight it must be met per "batch" or "run" - everything going into the same end product (all the way to the size of yarn). Here are some examples: most of the small mills in Maine, New Hampshire and Vermont have a minimum of 5 pounds raw for spinning, Green Mountain Spinnery has a 35 pound minimum, and Bartlett yarns Inc. has 100 pounds minimum of washed fiber. There are also sliding fee schedules - the greater the weight, the less the per pound fee.



Bartlett yarns Inc., Maine - yarn, sweaters

Plan ahead, because it is not unusual for processing to take 6 months (or longer) from time of delivery until you have your product back. Don't expect to have your yarn at the summer farmer's market when the mill got it in May. This varies greatly with the time of year and the size of the mill. When you make arrangements the processor may be able to give you an estimated turnaround time.



What product you want back will also determine what processor to use. The small mills all do roving, batts, and yarn. Some mills will custom dye your yarn. The Maine Top Mill in Waldoboro, ME makes 13-21 micron fiber into Top. You can have blankets made at MacAusland in PEI, or socks, comforters, and quilting batts made at Zeilinger Wool in Michigan.

How much you get back depends on the type of wool you have and your end product. From raw to washed wool is the greatest loss in weight - it can vary from as little as 10% for alpaca to over 50% for fine wool like merino. In each step of the process there will be some more loss: picking & carding, drafting, and spinning. The general guideline from fleece to finished yarn is 45% to 50% of the raw weight.

How do you estimate your costs?

Read pricing information carefully. Some are a simple raw weight cost, i.e. \$12 per pound for roving. Others have a charge for each step of the process, i.e. \$6 per pound for washing and \$12 per pound for finished roving. Let's take the example of a 10 pound batch of Romney. In the first case it will be \$120 - Romney loss is usually about 40% to roving so you will get back 6 pound at a total cost of \$20 per pound of finished roving. In the second case it will be \$60 for washing and \$72 for carding - \$142 for a total of \$23.66 per pound of finished roving. Some mills also charge a "set-up" fee. This is unusual for roving but not uncommon for spinning. Make sure you figure that cost in your per pound return. Finally, there are shipping/transportation costs to be considered. The price of processing in Vermont may be cheaper but you need to get the fiber there and back.

On shearing day (ideally, or shortly after) skirt your fleeces **very well**, sort them, and pack them into your processing batches. Remember that you will be paying for your processing by weight. I tell folks not to put anything in the bag that you don't want back in your finished product. Take out belly and leg wool (too short), take off all tags, and make sure there are not any hoof trimmings. You do not need to keep the fleece intact as for a hand spinning fleece. You may think that taking out the big chunk of wool with fine chaff at the base of the neck is a waste of good wool - wrong - you will be paying to process that chaff, and it won't stay in just that chunk of wool, it will end up in the whole batch, reducing the quality of everything. Check with your processor about packing requirements - some will not accept fleeces in grain bags (it's a bad idea to use them anyway).

The sooner you get the wool off to the mill, the sooner you will have your own fiber product to use or sell.



MacAusland's Woolen Mill, PEI - blankets



Zeilinger Wool, Michigan - socks

During preparations for the fall of 2012 Focus on Fiber seminar a value added fiber spreadsheet was developed. It can help you estimate costs and profit from selling raw fleeces to hand spinners all the way to a finished rug. If you are interested in a copy, please contact me at friendsfolly@roadrunner.com.

Pogo Pogorelc
Friends' Folly Farm, Monmouth

Tour of Bartlettyarns, Inc. in Harmony, ME

by Dorothee Grimm

It was a trip back in time. Huge belt-driven machinery made out of iron and wood. Creaking wooden floors and stairs. Wooden handrails shiny and smooth from the many hands that had rubbed them over decades. Fiber everywhere. The owner, Lindsey Rice, told the history of this woolen mill as he fired up the machines. I was not the only one in awe.

On a cold, snowy spring day in March, Lindsey Rice invited MSBA members to tour his historic fiber mill. The location on Higgins Stream has been home to a mill, powered by water, since 1821. When the first mill building burned down in 1920, the current mill was built and water power was replaced with electricity.



First carder.

Raw wool is first accepted in the warehouse. The wool is sent to Jamestown, SC for washing. For dyeing, wool is sent to Philadelphia. Huge bales of clean wool in natural colors or dyed come back to the warehouse. Then the journey through the three floors at Bartlettyarns begins.

On the first floor, the wool goes into a duster, which pulls out second cuts, hay chaff, dust. Cleaned, the wool goes to the picker which picks apart fiber bundles, and blends different fibers and colors. Because the wool is dyed before being spun, Rice can make several different color shades by blending darker wool with lighter wool in different ratios. After a second run through the picker, the fibers get blown up to the third floor.

The third floor is considered the men's floor, due to the large machinery and heavy lifting required. It houses a line of three carders, that align the fiber blend into a long, moving sheet which by the third carder is turned into 96 strands of pencil roving. The spools of pencil roving are then moved to a machine called a mule where it is spun into yarn. The mule holds 10 spools, which get spun onto 240 bobbins.



Mule spinning.

Bartlettyarns is the last mule-spinning operation in the US. A mule imitates the motion of a hand spinner as it spins on its 6 foot draw out, and winds up the single ply onto the bobbins on its way back. For videos of its operation, go to <https://www.facebook.com/pages/Bartlett-Yarns/>. The third floor also houses a smaller carder to make roving for hand spinning.

Once the bobbins are filled with single ply yarn, they are moved to the second floor. Here, the women's work begins, which requires an eye for details. Series of bobbins are drawn back onto a single spool. Up to three full spools go onto the twister. Here, two, three, or four strands are plied onto each bobbin, up to 40 bobbins per spool. The two-ply, three-ply, four-ply bobbins are taken to the skeiner or to the

cone maker, depending on the product's final purpose.

Some of the finished products go back across the street to the small store, filled with yarn, roving, knitting kits, finished hats and sweaters. The sweaters are knitted in Fall River, MA from 100% Maine grown and Bartlettyarns spun wool.



Skeiner.

Last year, Bartlettyarns purchased 15,000 pounds of Maine wool (including the MSBA wool pool) - which is only about a third of the annual volume processed at this mill. The majority of the products go to yarn shops across the US, incl. Halcyon Yarn in Bath, ME. About a quarter is retailed directly to individual customers, and a quarter goes to farmers in exchange for raw wool. A customer in Camden buys bags of pencil roving and felts them into dryer balls.

The business does custom processing as well. Fiber producers can have their fibers blended and processed into yarn (minimum is 100 pounds). The yarn comes in sport weight, worsted, and bulky (similar to the Icelandic Lopli). Roving can be made from smaller amounts, even single fleeces. For more information, visit www.bartlettyarns.com



Fiber sheet after 1st carder.



Twister, making two-ply yarn.

Dorothee Grimm
Scarborough, ME

University of Maine Animal Health Lab: Caseous Lymphadenitis Project 2012-2014

by Anne Lichtenwalner



Caseous lymphadenitis (CL) is a chronic, incurable disease of small ruminants. It's also highly contagious, and affects many areas of the world, including the Northeastern United States. The causative bacterium (*Corynebacterium pseudotuberculosis*) travels throughout the host, and eventually may cause abscesses in the skin, lymph nodes or internal organs. It can be transmitted from animal to animal, by shearing equipment, or by other environmental factors. During 2012, a Sustainable Agriculture Research and Education (NESARE) grant funded a project to encourage farmers to detect CL before it gets onto their farm, and to maintain a disease-free farm by use of biosecurity, effective disinfection practices, and immediate culling of any CL-positive animals.

Who can get CL?

Unlike many diseases, CL crosses species lines. It can affect sheep, goats, llamas and alpacas. Some strains can affect horses and cattle. People can also be affected, though this is not common. Because camelid species (llamas and alpacas) are often used as guardian animals in sheep flocks, they should be evaluated as CL carriers. In addition to possibly bringing CL into a previously negative flock, camelids are very susceptible to internal abscesses.

How do they get CL?

CL can be transmitted easily when small skin abrasions are present, such as those caused by splintery fencing/feeders. For instance, when an abscess near the neck ruptures and the exudate gets onto porous surfaces, like wooden feeders, another sheep may be infected by a wood splinter that carries the bacteria. For this reason, having cleanable (metal, plastic, or painted wood) feeders is recommended. As well, infected handling or shearing equipment may spread CL. It may also be spread via coughing, once internal abscesses in the lungs have ruptured. Once infected, the animal may harbor the bacterium for prolonged periods without forming abscesses. When abscesses occur and rupture, the exudate ("pus") is a potent source of infection for other animals for extended periods of time (months to years). Flies have been reported as possible carriers of CL.

How do you know if CL is present?

The disease causes "dry" abscesses, primarily of lymph nodes. These are sometimes called "cheesy glands". Abscesses may be visible (when in the lymph nodes just under the skin) or hidden (internal lymph node abscesses). External abscesses decrease the value of the hides, and internal or extensive abscesses may downgrade carcasses of meat animals. Rupture of abscesses results in spread of the bacteria, and if internal abscesses rupture, the release of toxins may prove fatal. Animals with internal abscesses may be thin and may have a chronic cough, but often animals carrying the CL bacteria don't have any signs. The best way to know if your animals are carrying the bacteria is to test their blood for antibodies to the bacterial toxin.

How can CL be prevented?

Currently, there are vaccines for CL- but they may not be effective, may cause tissue reactions, are often not used as directed, and interfere with testing for the disease. Experimental vaccines have been used effectively in sheep and alpacas. Newer vaccines have been developed in the last 10 years for use in Australia, New Zealand and the UK, and may prove to be more efficacious than older vaccines. If newer vaccines are to be utilized in the United States, authorization for their use must be obtained. Vaccinating for CL prior to, or in the face of active infection may sound like a good choice for a farm, but will take away the ability to use diagnostic testing to detect new infections. Right now, we don't have an effective vaccine for CL in the US. For US producers to prevent CL, testing/culling, education, and developing their own farm biosecurity programs are the best tools.

Do we have CL in Maine?

Preliminary work in 2009 by Richard Brzozowski suggested that approximately 6% of Maine flocks had problems with CL in the past, and that although many were aware of biosecurity, few had a plan for their farm. During 2011, several sheep producers reported a high incidence of CL in their flocks, and due to the slow onset of this disease, the overall prevalence in Maine is likely to be increasing. The current study surveyed 15 sheep farms, finding CL sero-positives in 8 of them. However, 7 farms were negative; 5 were tested 2 to 3 times at intervals of greater than 2 months, and were found to stay negative (the remaining farms were only tested once). In this survey of approximately 500 sheep, the percentage of positive sheep ranged from 3% to 76%. While this was only a very limited survey, it suggests that there is an increasing amount of CL on Maine farms. A new study of CL on goat farms is currently recruiting dairy and meat goat farmers.

What should Maine farmers do about CL?

Studies of CL outbreaks in several countries suggest that the most dependable method of preventing and eradicating CL is by testing, and then culling all positive animals. We support the approach of testing animals prior to purchase if possible, of quarantining

Continued on p. 6

Caseous Lymphadenitis - continued from p. 5

new (or travelling) animals, and CL-testing again prior to release from quarantine. Each farm should develop and follow its own biosecurity plan. Probably the most difficult and essential step is to cull positive animals, if being CL-free is a realistic goal for your farm.

The results of the NESARE study suggested that for intensively managed flocks, where animals are used for fiber, producers may be aware of CL as a major issue, but are not willing to make the culling decisions required to contain it. In these flocks, vaccination may be needed, if excellent records are kept, frequent boosters are given, and vaccination status is clearly communicated to buyers. Vaccine options in the US are limited at this time to Case Bac (Colorado Serum Company).

Other difficulties in these flocks are lack of adequate quarantine facilities and feeders/fencing that cannot be adequately disinfected. Given the persistence of CL in the environment and the expense of replacing infrastructure (wooden feeders/fences) it seems unlikely that complete eradication is possible without ongoing culling in flocks with extensive wooden facilities.

In a flock producing a combination of meat lambs and some specialized breeding stock, sheep had been obtained from multiple sites, and were moved into a number of configurations in the year to maximize access to pasture. Thus, mixing of animals was unavoidable in this flock, and follow-up testing was not possible. High sero-prevalence was found at the initial (only) blood test. The history was unclear, and may have included vaccination (without current boosters). However, low to intermediate titers in a number of animals, as well as negative titers, suggested that natural exposure to the CL organism was present in this flock. Selling animals for meat would be appropriate, but selling animals for fiber or for breeding from this flock would be inappropriate without disclosure of the CL status. As well, losses due to carcass downgrading are likely in this flock.

Finding either negative farms (47%; 7 of 15) or farms with very low numbers of positives was encouraging. On two farms, sheep had recently been returned to the home flock after flock sales that did not work out. On one farm, after reintroduction of animals that were offsite at initial testing, a third visit was made to test all sheep. All sheep were still seronegative. On another large farm, a "commercial" flock had been sold, moved offsite, but then returned to the farm after failure of the sale. In this case, the "home" animals, which were breeding/show stock, were initially all seronegative. The returned flock had one seropositive, which was discovered after the flock had already been returned to the farm. On the second test of the "home" flock, one animal now had a low titer. Culling and quarantine was advised, and tougher biosecurity for show animals suggested. Both farms produce breeding stock, and much discussion about the critical role of biosecurity ensued. All farmers with CL negative flocks were encouraged to use CL seronegative status as a marketing "plus" when selling breeding stock.

Another small fiber flock of 7 animals had 1 sheep with a low titer at the first test; 4 were positive at the second test. In this flock, culling would be impractical, but vaccination and good biosecurity was advised. Even in very small flocks, biosecurity is the best defense against many livestock diseases and parasites. All farmers expressed dismay at the concept of "buying" this disease when purchasing apparently healthy new animals. Testing prior to adding new (or returning) animals to the farm is advisable.

Anne Lichtenwalner, DVM, PhD
University of Maine Animal Health Lab
Cooperative Extension/School of Food and Agriculture, Orono ME

Testing for CL will be available at the University of Maine Animal Health Lab (UMAHL) during 2014-2015 for goats and sheep at no cost for participants in the CL project. If you are interested, please contact: anne.lichtenwalner@maine.edu

Maine Fibershed

The third meeting of this group took place on May 23 in Portland. The group was started in the fall of 2013 by a few Maine fiber enthusiasts. Their goal is to create awareness of and promote locally grown and processed fibers from sheep, alpaca and other camelids, goats, rabbits, yaks, etc. The Fibershed's (originating in California) mission is: "To change the way we clothe ourselves by supporting the creation of local textile cultures that enhance ecological balance, and utilize regional agriculture while strengthening local economies and communities."

The group's next meeting will take place at Long Plains Alpacas in Buxton in August.

If you are interested in participating, please check the Facebook page <https://www.facebook.com/mainefibershed>

Handling Caseous Lymphadenitis (CL) Abscesses

by Anne Lichtenwalner



If animals with CL abscesses can't be immediately culled, it's a good idea to try to "control" abscesses by preventing their spontaneous rupture on the farm. Have your veterinarian do this if possible. Remember, you can harm your animal if you sever a blood vessel, nerve or major structure such as the esophagus or trachea working in the area of the neck. USE CAUTION handling sharp objects and dispose of them in a "sharps container" when finished using.

Prepare well for handling this highly infectious material by having:

- a "cleanable" isolation area for the abscessed animal (e.g. metal, plastic or otherwise impermeable fencing/walls; concrete floor, hose and drainage available for cleaning after)
- be sure this area does not drain into general animal use areas
- old clothes you don't mind discarding; safety glasses
- a good restraint system and a helper
- good lighting
- clippers (disinfect before and after)
- disposable gloves
- a very sharp knife or scalpel
- a very clean small blunt instrument such as a very small spoon for cleaning out the inside of the abscess pocket
- sharps disposal if you use a disposable scalpel
- disinfectant (1:9 dilution of household bleach in tap water) in a stainless steel bucket; make about a gallon
- a roll of paper towels
- a plastic garbage bag for removing the exudate
- povidone iodine solution (I would use a 1:1 dilution with saline contained in a steel bowl; about a quart)
- a 60 cc syringe with a blunt "cannula", like that used for mastitis medications in cattle

Have the animal well restrained; sedating is a good idea if possible. Put on your gloves and lay out your equipment and supplies. Clip the area over the lump. Palpate the lump to find the "soft" spot if there is one. Remember: an abscess contains fluid, either runny or dry. Before it's an abscess, it's just a hard lump- and there is no point trying to drain a hard lump. Disinfect the abscess with a povidone iodine-soaked paper towel. Put ALL debris (towels, pus from the abscess, gloves) into a plastic sack and seal it up, then have it incinerated if possible.

Once you are ready to open the "soft spot" on the abscess, make sure you know how big/where you will cut. Remember that you are only cutting through the skin, which should be less than ¼ inch thick. You'll want the incision to be at least an inch or so in length. Be ready for the material to come out fast: be sure to catch it into wads of paper towels, putting them immediately into the plastic bag of trash. Have your helper watch for any spillage and clean it up immediately.

Once all the pus is removed, scrape out the inside of the abscess pocket with the clean spoon. There should be a small amount of bleeding present. Once you have removed most of the pus, begin flushing out the pocket with the diluted povidone iodine, using the syringe and cannula. Allow the fluid to run out of the incision as you flush it in; this creates a "rinsing" effect. You should rinse it several times, catching all the rinse fluid with paper towels and immediately putting them into the plastic bag of trash.

When you are finished, wipe off the abscess area with povidone iodine. Use fly protection (spray, wipe) near the abscess area to avoid fly strike. Check the animal at least daily; abscesses tend to re-form within a few days. Thoroughly clean and disinfect any nondisposable instruments/safety glasses. Dispose of your clothing and gloves along with other trash in the sealed plastic bag. Place sharps in a sharps container for proper disposal. You should shower immediately, before attempting more chores or handling other animals. Undiscarded clothing should be laundered separately from regular laundry, and placed in the dryer on high heat for at least an hour.

Culling CL-positive animals is strongly recommended, as CL abscesses will break out repeatedly. Disinfect the area where this animal has been kept with bleach solution after you cull the animal. Always feed/work with healthy animals first, leaving the quarantined animals until last, to avoid contaminating healthy livestock. Use separate implements for tending to quarantined animals, and keep these in the quarantine animal area.

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May 6, 2014

Dear Sheep and Goat Producers,

I am a large animal veterinarian and researcher at UMaine in Orono, who is studying applied methods for controlling internal parasitism on farms in northern New England. My lab worked with numerous farms in Maine during the 2012 grazing season to identify the types of internal parasite species found in our local sheep and goats, but we ran out of money and have not done much parasite work in Maine since the 2012 study.

The 2012 parasite species survey showed us that Maine was dealing with a serious *Haemonchus contortus* (Barber-Pole worm) problem! Individual farmers cited anemia from *Haemonchus* as a major disease issue that affected their productivity. In response, we submitted SARE grants in 2012 and 2013 on *Haemonchus* management in northern New England. The most recent grant, "Control of *Haemonchus contortus* in northern New England sheep and goats through manipulation of its winter ecology", did get funded, and we are now ready to intensify our original work with sheep and goat producers. Dick Brzozowski will keep you informed of upcoming field studies and educational opportunities that will be available to you during this grant.

Although the grant funds will not arrive until late summer, we are starting a 2014 grazing season census of parasite populations on northern New England farms. For this study, we hope to obtain pooled fecal samples from your animals, one in late May to June, and the other during July to early August. Shipping of these samples to Orono will be free, since we will send you pre-paid mailers, plus instructions on how to package the manure. From these samples, we plan to provide you with a list of the relative abundance of the internal parasite species present on your farm. On some of these farms, we also plan to tell you how well your deworming treatments are working.

If you are interested in participating in this initial project, please send an email with your contact information, plus a couple of sentences on your farm's size and your breeds/species of animals to umainewormsurvey@gmail.com. In return, we will send you more specific information about these projects, and will then send out a mailer with a date for submitting pooled samples to us for analysis.

Sincerely,

Jim Weber, DVM, PhD, Associate Professor
School of Food and Agriculture
Institutional Veterinarian, University of Maine
5735 Hitchner Hall
Orono, ME 04469
jaweber@maine.edu



MSBA Board of Directors (BOD)

Elected, re-elected, or confirmed at the annual MSBA meeting and BOD meeting on November 25, 2013.

President: Lisa Webster, North Star Sheep Farm, Windham, ME; MSBA@me.com

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

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

Treasurer: Richard Brzozowski, Buckminster Farm, New Gloucester, ME; richard.brzozowski@maine.edu
Cindy Green, Houlton, ME; cindygreen98@gmail.com

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

Joe Miller, Rivercroft Farm, Starks, ME; rivercroft@dialmaine.com

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

Nancy Webster, Woolweb Farm, Brooks, ME; woolweb@aol.com

Philip Webster, North Star Sheep Farm, Windham, ME; northstarfarms@me.com

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

Calendar of Events and MSBA Board of Directors (BOD) Meetings 2014

June 3, 5:30-7:30pm: York County Farmers Network Pasture Walk at Noon Family Farm, Springvale, ME.

Rick Kersbergen, UMaine Extension educator in Waldo County, will lead this "Got Hayfields?" workshop, focussing on how to best manage hayfields and pastures to produce high-quality feed for livestock. Topics include weed control, managing soil fertility, hay and pasture renovation techniques, grazing management and basics of forage quality. Pre-registration is requested. To register, or to request a disability accommodation, call 1-800-287-1426, or visit <http://umaine.edu/waldo/programs/events/got-hayfields>. Please contact Frank Wertheim or Becky Gowdy at UMaine Extension in York County, 207-324-2814 or rebecca.gowdy@maine.edu with questions or for directions.

June 7 - 8: Maine Fiber Frolic, Windsor Fairgrounds, ME. More information at <http://www.fiberfrolic.com/>

Please note that there will be no Wool Pool at the Fiber Frolic this year. Interested sheep producers can drop off their wool directly at Bartlettyarns, Inc. in Harmony, ME (see p. 2).



June 16: An evening with Dr. James E. Miller

Dr. James E. Miller is a faculty member in the Department of Pathobiological Sciences, School of Veterinary Medicine at Louisiana State University. He is scheduled to vacation in southern Maine in June. The Maine Sheep Breeders Association, the University of Maine Cooperative Extension, and the Turner Veterinary Service have arranged for sheep producers, goat producers and other interested parties to meet with Dr. Miller and learn from him.

5:00 to 6:30 pm – Evening meal (on-your-own) meet at Cole Farms Restaurant located at 64 Lewiston Road (Routes 100/202/4) in Gray, Maine. Please arrive by 5:15 pm to order off the menu. RSVP 207-781-6099 or email lynne.b.hazeltan@maine.edu with contact phone number, email, number of attendants, and subject line MILLER.

7:00 to 8:30 pm – The educational component of the evening is scheduled for the Maine Forest Service Building on Route 26 (356 Shaker Road) in Gray. Free and open to the public.

Both of these sites are easy accessed from the Maine Turnpike – 10 minutes from Exit 63

Topics to be presented:

- Update and new concepts in regards to small ruminant parasite management - Including organic and natural methods
- Using anthelmintics effectively
- Q&A and discussion – Bring your questions

Dr. James E. Miller is a faculty member in the Department of Pathobiological Sciences, School of Veterinary Medicine at Louisiana State University where he has been for 30 years. He graduated from the School of Veterinary Medicine, Davis, CA in 1978 and obtained a PhD degree from the same institution in 1984. He also completed a Food Animal Residency in 1981. He is author and/or coauthor of numerous refereed journal articles, technical/report papers, proceedings papers, abstracts and book chapters. He is a research collaborator on many projects with national and international organizations.

He is a co-founder of the American Southern Consortium for Small Ruminant Parasite Control. The Consortium's primary purpose is to evaluate and promote integrated control of nematode infection with a concentration on alternative non-chemical methods. Dr. Miller is the principal investigator for several competitive and industry supported grants studying the epidemiology, control, and genetics of ruminant nematode parasitism. His area of special expertise is small ruminant gastrointestinal nematode parasitism, which is one of the most serious constraints affecting production world-wide. Economic losses are caused by decreased production, costs of prophylaxis, costs of treatment, and the death of infected animals. Anthelmintic resistance in nematode populations (specifically affecting small ruminants) threatens the success of treatment programs.

Dr. Miller's current research is two-fold: 1) To evaluate alternative (non-chemical) approaches for protection against nematode infection, and 2) To determine why, and/or how resistant animals differ from more susceptible animals to gastrointestinal nematode infection.

July 27: Open Farm Day throughout the State of Maine. A list of participating farms can be found at www.getrealmaine.com

August 11: Maine Crafts Weekend. Hosted by the Maine Crafts Association and the Maine Fiber Arts. For more information go to www.maineecraftsassociation.com

August, date TBD: Maine Fibershed meeting at Long Plains Alpacas, Buxton, ME. <https://www.facebook.com/mainefibershed> (see p. 6)

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

Poisonous Plants in Pastures

by Diane Schivera, M.A.T.,

Jean English photos

If a pasture has enough palatable plants to eat, livestock will generally avoid the poisonous plants. But livestock are individuals, and there are always exceptions. So any pasture management method that results in over grazing will encourage animals to eat plants they would normally avoid.

Drought can also lead to poisonings, because the toxins become more concentrated in plants.

The animals' health and condition will affect the potency and effects of certain toxins. Many pasture plants that are not normally toxic can accumulate nitrates under certain conditions. A healthy animal will process this toxin without ill effects, while a thin or unhealthy animal could have a serious reaction or even die.

The quantity of the plant eaten will also affect the severity of the result.

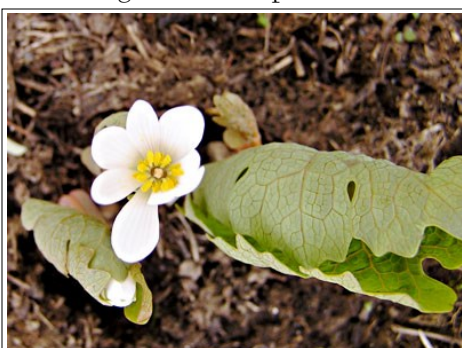
And the part of the plant eaten is significant. Rhubarb (*Rheum rhabarbarum*) leaves are toxic but the stalk is not. Dogbane (*Apocynum androsaemifolium*) tubers are poisonous, but the aboveground portion is not. If animals eat only the tops and don't dig or pull up the tubers, they won't be affected – so again, regarding pasture management, don't push animals to eat plants they would prefer not to, but may eat only because they are hungry and have been in that paddock too long.

The stage of growth or form in which it is eaten can affect the toxicity of some plants. Sweet clovers (*Melilotus* spp.) are fine eaten in pasture but if put up in hay, animals eating that hay can suffer late-term abortions.

Many ornamental plants can cause illness or death when eaten by any animal. Take extra care not to throw cuttings of these into the pasture, and avoid planting exotics or ornamentals along the fence if animals have any chance of reaching through the fence to nibble.

Common toxins found in poisonous plants are alkaloids, nitrates, glycosides and cyanogenic toxins (producing hydrogen cyanide, also called Prussic acid).

If you suspect poisoning, try to find the offending plant in order to decide how to treat the animal.



Bloodroot (*Sanguinaria canadensis*)

Walk your pastures each season when livestock are out. New plants can grow any time, from seeds carried by wind or other vectors. Learn to identify the plants in your pastures.

Common Poisonous Plants

- *Prunus* species include cherry and other stone fruit trees. Fresh, dry leaves are edible, but if the leaves become wilted for any reason, even from frost, they will cause cyanide poisoning and sudden death.
- Red maple (*Acer rubrum*) leaves, wilted or frosted, are toxic to equines only.
- Water hemlock (*Cicuta maculata*) and poison hemlock (*Conium maculatum*) are problematic because they green up early in the spring and look very inviting (spp.), mountain laurel (*Kalmia latifolia*) and sheep laurel (*K. angustifolia*) cause weakness, nausea, salivation and vomiting, if no other green vegetation is available. Later in the season most animals avoid these.



Lupines (*Lupinus* spp.)

- Other plants that cause alkaloid poisoning are Mayapple (*Podophyllum peltatum*), bloodroot (*Sanguinaria canadensis*), pokeweed (*Phytolacca americana*), false hellebore (*Veratrum woodii*), Jimson weed (*Datura stramonium*) and lupines (*Lupinus* spp.).
- Rhododendrons (*Rhododendron* spp.), mountain laurel (*Kalmia latifolia*) and sheep laurel (*K. angustifolia*) cause weakness, nausea, salivation and vomiting.
- All parts of nightshades (*Solanum* spp.), including bittersweet nightshade (*Solanum dulcamara*), are toxic, except for ripe berries. The toxins include solanine, an alkaloidal glycoside; other glycosides; and atropine. They affect the gastric and nervous systems when eaten, either fresh, or dried in hay.



Water Hemlock (*Cicuta maculata*)



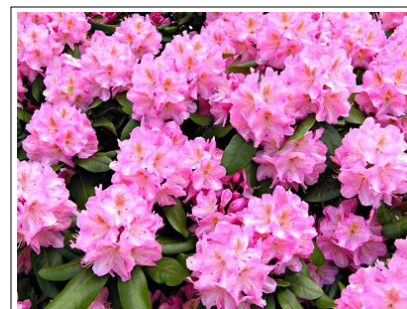
Pokeweed (*Phytolacca Americana*)

continued on p. 10

Poisonous Plants

Continued from p. 9

- White sweetclover (*Melilotus alba*) and yellow sweetclover (*M. officinalis*) may contain toxins when present in moldy hay and when fresh plants are stressed.
- Older varieties of Sudan grass (*Sorghum sudanense*) or sorghum (*S. bicolor*), when wilted or frosted, cause cyanogenic (cyanic generating) poisoning. Silage should be at least two weeks old to be safe.
- Bracken fern (*Pteridium aquilinum*) is toxic if consumed over several weeks. Affected animals are listless, lose weight and can have small hemorrhages on their mucous membranes. They may die from internal hemorrhages or from anemia.
- The buttercup (*Ranunculus* spp.) toxin is an acrid, volatile alkaloid that can cause skin to blister and can inflame the intestinal tract. Cattle and goats poisoned by buttercups produce bitter milk with a reddish color. The toxin volatilizes and is lost when dried in hay.

*Rhododendron* spp.Milkweed (*Asclepias syriaca*)

- Milkweed (*Asclepias syriaca*) contains cardiac glycosides and has low to moderate toxicity. Milkweeds are unpalatable, and death is unlikely unless large quantities are consumed. For animals that can do so, vomiting - the first sign of poisoning - eliminates some of the toxin. (Ruminants and horses cannot vomit.)
- Lambsquarters (*Chenopodium album*) can accumulate nitrates, which can be present in fresh or dried plant matter. The toxicity depends on nitrogen levels in the soil and resulting nitrate levels in the plant.
- Redroot pigweed (*Amaranthus retroflexus*) contains nephrotoxin, which causes kidney failure; soluble oxalates; and can accumulate nitrates. Large quantities must be eaten, fresh or in hay, to cause a problem.
- Curly (yellow) dock (*Rumex crispus*) contain soluble oxalates that affect the kidneys if eaten in large quantities.
- Tall fescue (*Festuca arundinacea*) contains endophytes (a fungus that lives within the plant) that have low to moderate toxicity to livestock, producing intestinal and reproductive problems. Tall fescue is sometimes seen in roadside plantings and spreads from there to fields. Endophyte-free varieties are available for planting in pastures.
- St. Johnswort (*Hypericum perforatum*) photosensitizes skin, so animals - especially white goats - can get sunburned. Alsike clover (*Trifolium hybridum*) and some other legumes, as well as buckwheat (*Fagopyrum esculentum*), can also cause this problem. Animals can become photosensitized just from contacting wet plants.
- Wild and cultivated mustards, in the *Cruciferae* family, contain irritating oils that can cause oral and digestive problems when consumed in large quantities, fresh or dried. They can also accumulate nitrates in soils with abundant nitrogen.
- Yews (*Taxus* spp.) contain highly toxic cardiac alkaloids in all parts except the fleshy red berries. Eating a very small amount can kill an animal.

St. Johnswort (*Hypericum perforatum*)Yews (*Taxus* spp.)Resources

Plants Poisonous to Livestock, Cornell University Department of Animal Science
www.ansci.cornell.edu/plants/index.html

Plant Poisoning of Livestock in Vermont, University of Vermont Extension
www.uvm.edu/pss/vtcrops/articles/VTPoisonousPlants.pdf

Canadian Poisonous Plants, Canadian Biodiversity Information Facility, Government of Canada
www.cbif.gc.ca/pls/pp/poison?p_x=pxpoisworld.html

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