



Maryland Festival Highlights

All the familiar sights and sounds of the Maryland Sheep & Wool Festival are joined by some special new ones in this, its 46th year.

The display created by retired academic librarian John Crane, "Sheep Breeds: A World of Difference," will provide visitors with an opportunity for a visual and tactile exploration of the fiber of 71 sheep breeds. (And if you want to dive down further into that adventure, there are still spaces available in the Thursday, May 2, class "Breed Study for Knitters: Swatching Beyond Gauge!" with Gretchen Frederick and Kathy Reed, and guest Deborah Robson (follow the links at sheepandwool.org to register online.)

This year's featured breed is the Lincoln Longwool, and the National Lincoln Show & Sale will coincide with the All Breeds Show & Sale Saturday evening, with the pre-sale show at 7 p.m. on Friday. Forty head of sheep are on the sale list, which can be downloaded here: www.bannersheepmagazine.com/salecatalogs/2019/Maryland%20Catalog%204-19.pdf.

The free Shepherds' Seminars also offer something familiar and something new:

Saturday, May 4, 1:30–4:30 p.m. So You Want to Raise Sheep? Overlooked Shepherding Basics from the Trenches (What to Do and What to Avoid), with Peter Austin. In the Dining Hall and outdoors with critters.

Sunday, May 5, 9:30–10:30 a.m. So You are Thinking of Becoming a Shepherd, with Lisa Westra. 4-H Hall.

And on Sunday two fiber arts lectures in the 4-H Hall (fee \$5, payable at the door) will further enlarge your knowledge: A Close Look at Wool from a Fiber Geek's Perspective, with Deb Robson, 11 a.m. to noon, and The Science Behind the Magical Properties of Fibers and Dyes, with Kimber Baldwin, 1–2 p.m.

Tickets are available on a first-come, first served basis.

And don't miss David and Nancy Greene's display of late 19th and early 20th century shearing equipment and artifacts in the Home Arts building. David will also be signing copies of his book, *The History of the Maryland Wool Pool*, (available for purchase in the T-Shirt Building).

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The Festival is excited to offer "Sheep Breeds: A World of Difference," the hands-on display created by John Crane. See and touch fiber from 71 different breeds of sheep, including sample locks, carded roving, handspun yarn, and knitted swatches. In Barn 7-8.



President's Message

Lee Langstaff
MSBA President

Spring is here! The Maryland Shearing School (February 8-9) and the MSBA Seminar Day (February 23) both went off without a hitch—both with excellent attendance and very positive feedback. We are fortunate to have the human resources and expertise available to us to be able to provide such quality opportunities for both members and non-members.

We're on the verge of the 46th annual Maryland Sheep & Wool Festival (May 4-5) as well, and it is shaping up to be a good one! Again, we owe so much to those of you who get involved to make this event possible each year. I hope that most of you will be able to join us at the Festival—whether as volunteers, vendors, sheep show participants, or in whatever capacity is your niche. It's a fine celebration of the remarkable animal that ties us all together, one way or another. Special thanks to all of you who participate in making MSBA events add value to all of our sheep and wool endeavors.

I hear from many of our member shepherds that the frequency of triplets and quads is up among those who have lambled already. Perhaps all that rain last summer, and the

resulting more-lush-than-usual pastures served as a natural flushing for many of our ewes. The downside was that hay was hard to find, and on the expensive side, this past winter after such a wet hay-making (or not) season. As we watch things greening up now, it's hard not to wonder what sorts of conditions we'll face this summer.

I am pleased to report that MSBA is doing well and living up to its mission, and is guided by an engaged and active Board of Directors. It continues to be a pleasure to be working on behalf of our members with such a group of people. If you are interested in becoming more involved, we would welcome hearing from you.

I look forward to seeing you at the Festival. Remember that set-up day for the Festival is on April 28, and extra hands are always welcome. Once again there will be an All Breeds Sheep Sale on Saturday evening—including the National Lincoln Longwool Sale. Come join us!

At a well-attended Shepherds' Seminar Day, Dr. Margi Dunlap (below) demonstrates necropsy procedures on lambs, and Dr. Rosalind Hain (bottom) discusses dealing with sheep medical issues.



On a chilly Monday this past March, a shepherd and a shearer in an extremely loved van headed down the highway to spend two days meeting with legislators in Washington, D.C., on behalf of the American Sheep Industry Association. Sounds like the beginning of a joke, right? Well, it definitely was not. We took this

Maryland reps lobby for sheep in D.C.

assignment very seriously. We were going to do this!

We were not without apprehension; this was well outside the realm of a normal week in our lives.

We settled into the hotel and re-read the main objectives that ASI wanted us to talk about with our state's representatives and senators. We researched the bills, we looked over our schedule of meetings, we googled locations, we planned what to wear. We were going to do this! We were going to do this right!

The morning came, and with it the morning briefing. Off we went as a flock of 50 to the U.S. Department of Agriculture briefing. Long lines of Ubers, taxis, and pedestrians arrived at the front of the USDA building, and we waited patiently with ID in hand to go through security.

We listened intently as Under Secretary of Agriculture for Marketing and Regulatory Programs Greg Ibach, Undersecretary for Research, Education, and Economics Scott Hutchins, and staff from the USDA Risk Management Agency gave us a briefing on legislation they are working on that applies to agriculture. The most exciting bit of information came as the announcement was made that the U.S. Sheep Experiment Station was no longer on the chopping block—for this spending cycle. Let's all work to ensure the station stays off of the chopping block.

At this point we were free to grab some lunch. We had no planned meetings for the afternoon, but thanks to a friend from Ohio who has done this many times before, we were invited to attend a few of the meetings he had set up. We attended as observers. This was exactly what we needed! A mentor, a friend, a teacher. The apprehension melted away and as we went to bed that night, we knew that we were going to do this!

Wednesday morning our day began with a breakfast dedicated to the U.S. Sheep Experiment Station. Idaho 2nd District Rep. Michael Simpson spoke to us and echoed the message we received the day before that the station is safe for now. Our meetings were set to meet with Rep. Jamie Raskin's office, who is Patty's representative (8th District). We only

National news & views



had a scheduled half hour with each legislator's office, and we had been told to only count on 15 minutes. We met and we delivered the information in a clear concise manner. We were doing this!

We had a break between meetings and decided to go ahead drop off the information packets that ASI put together for us at the offices of other Maryland representatives we were not scheduled to meet with formally. We had time to grab a bite to eat before our next meetings at our two senators' offices. We were excelling at this!

We spoke with Senate staffers and even had a brief chat with Sen. Ben Cardin in person, as he poked his head in during our meeting with his staff. He apparently attends the local ag fairs each year, "not as a senator, just as a man." We were definitely excelling at this.

We were done with official business at this point. We had relayed details of the main objective items to those that had the power to make changes needed for our industry. Not all agenda items were necessarily items that we deal with directly on the East Coast (although one in particular, the Minor Use for Minor Species Provision, was).

But this was not about us as individual farmers and ranchers, it was about our industry and the challenges we face as a network of shepherds. Producers large and small, fanning out through the house and senate office buildings. Working together to make a difference for all of us.

We're so glad we did this. We're absolutely going to do it again next year. We decided on the ride home that not only did we do this... We CRUSHED it!

*Emily and Patty
outside the Capitol.*



Patty Sanville

*is President of the
Frederick County Sheep
Breeders Association.*

**Emily Chamelin
Hickman**

is MSBA Secretary.

National views ▶

MSBA contingent attends ASI Convention

Jeff White

is Vice President of MSBA.

MSBA members were well represented at the American Sheep Industry Association convention in New Orleans January 23–26. Jan and I, along with Peter Austin, arrived Tuesday afternoon, leaving Maryland's 20-degree temperatures behind for the Gulf Coast's balmy 60s. After checking in, we presented a generous supply of previous Maryland Sheep & Wool Festival T-shirts and other merchandise to be put to good use by ASI.

Wednesday morning Jan and I were off on one of the preplanned tours, visiting a number of natural areas and an oyster operation down on the Mississippi Delta. That evening the MSBA group met up and we were off to Felix's for great seafood, brews, and camaraderie.

Thursday morning I attended the President's breakfast, where state sheep organizations provided an overview of their activities and goals. The goals and concerns are similar—maintaining and growing membership while providing services to their members. Western states have concerns over controlling large predators.

Next up were sheep health topics, including the California Wool Growers Association's (CWGA) continuing effort to reintroduce a footrot



MSBA members were well represented at the American Sheep Industry Association convention in New Orleans January 23-26. Out for a great sampling of local New Orleans seafood and brews are, from left to right, MSBA members Ken Farrell, David Greene, Peter Austin, Emily Chamelin Hickman, Jan White, and Jeff White.

vaccine in the United States (in 2012 Merck discontinued sale of Footvax here, and stated in 2015 that it has no plans to resume distribution). CWGA is working to develop an autogenous vaccine from samples of footrot strains in U.S. sheep, or resume importation of Footvax for sheep. They hope to make this vaccine readily available nationwide. MSBA could probably get an annual permit for evaluation purposes.

Next was Maryland's own Susan Schoenian, who presented via Skype an overview of Bioworma, the fungi product that has demonstrated potential as a biological control for gastrointestinal worms (primarily the barber pole worm).

Other events at the convention included updates and discussion on the National Sheep Improvement Program (NSIP). At the awards lunch, John Helle was presented with the Industry Innovation Award for creating the Duckworth wool clothing line from his Montana ranch's Merino sheep (check out <https://www.duckworthco.com>). I met the Helle family in the elevator and invited them to the Sheep and Wool Festival.

I believe we all made a good showing at the convention and other states are recognizing Maryland has a diverse and engaging association. An added bonus for us was New Orleans' great seafood and entertainment.

Next year the ASI convention will be in Scottsdale, Arizona.

See page 12 for another perspective on the convention, and page 13 for great news about Maryland's Make It With Wool team in New Orleans!

Jan admires a splendid pair of horses on patrol with the New Orleans mounted police.



The image below is where I'll start. It shows a ram owned by my grandfather. This animal was an undefeated champion from Pennsylvania to New Mexico in 1922. His wool sample is nearly 100 years old. It remained white until about 15 years ago, when it started to lose its quality. At the Independence Day Sesquicentennial Celebration at Philadelphia in 1926, where there was an exposition of the major industries of the day, my grandfather won the livestock gold medallion—literally, almost 4 ounces of gold.

Why raise wool breed sheep?

This article is adapted from a talk in March at a wool breeds judging clinic at Ohio State University, sponsored by the Ohio Sheep and Wool Program.

And with that came prestige. But with the advent of synthetic fiber, the glory days and the money were clearly over.

What about the judges?

Is judging just an ego trip? How visual is the placing line? It depends on the judge. They can pander to the crowd by picking pattern and fitting. (And in that endeavor, they are often rewarding the Show Jocks, whose ethic is: Don't like to wash show sheep. Easier to fit than meat breeds. Less competition than the meat breeds. Just looking for another string to show and market. My take is that if a breeder in the wool breeds is not serious about true fleece quality, they should go grow some meat sheep.)

Judges should recognize that there often are often counterproductive trends in the show ring. An example: I proposed a size standard in Columbia sheep since few intermountain commercial people want one. The breed is too tall and has a late maturity curve. A breed association board member said it would kill the show market if the breed declared an optimum size.

However, the show game exists whenever there are reasons to separate the different color ribbons. Why not use practical ones? Right now, the Natural Colored sheep I see in the ring are tall, cut-flanked, hard-doing (basically, lacking depth and capacity), average fleece sheep—when the scorecard dictates that 60% of the evaluation



should be focused on fleece. How does that happen?

Judges of wool breeds need to double down on fleece quality as a serious part of their placings. They should use their opportunity as a judge to push traits with utility instead of trendy or visual ones. And they need to be prepared for the possibility that spectators will not be able to visually follow their choices as they evaluate fitted and wool breeds.

Thresholds and marginal differences

Hopefully a judge will have several sheep in each class that cross the threshold for minimum acceptable fleece quality.

A sheep is not truly a top sheep if it excels in a few traits but fails to cross each important threshold. It must meet the threshold for both fleece and conformation traits to make it near the top of the class. Once all thresholds are met, a judge can consider marginal differences between animals for each different trait.

David Cook

is a wool breeds judge who has been around the show ring his entire life. The Cook family began raising purebred sheep in 1891. David judged his first National Show at Louisville in 1987 and has judged in 25 states. He has bred and shown Columbia sheep that captured 58 Champion, Reserve Champion, and Premier Breeder awards during a 20-year span. He and his wife Lysa now raise Hamp cross club lambs.



Management ▶ A class winner should not sacrifice wool quality even if the crowd can't see it. But there may be times when your placing is based on conformation. I have judged classes where every sheep in the class had great wool, and classes where every sheep had crap wool. (The marginal difference in wool quality was not a factor, but that happens rarely.)

What is good wool?

As with all things, *context is critical*.

Is it on the hoof or in a bag? In a fleece show you are looking at the end product and determining its quality for a specific use. In a live show, you

are phenotypically trying to evaluate an animal's genetic ability to produce the end product. It is impossible to evaluate some traits on the hoof (such as staple length—except where there are mandated shearing dates).

Judging fleece shows

There are substantial differences in how judges approach commercial vs. hand-spinning vs. breed class fleece shows.

In commercial classes, SIZE matters: Total clean yield (CWFP, or clean wool fiber present), fineness, staple length. In hand-spinning classes, quality traits rule...how clean, how soft, how white, how much luster.

In breed classes, trueness to breed must be considered. Does the wool meet the Breed Scorecard or Standard of Excellence? Aren't judges obligated to follow the Breed Scorecard? Are the Romneys too fine or are the Rambouilletts too coarse?

If judging purely on commercial value, fineness becomes a central concern. There is a very limited commercial market and a low price for coarser grades in the United States.

Different emphasis is placed on some characteristics when judging wool for commercial use compared to fleeces for handcraft use. Handcrafters tend to work with single fleeces, or often parts of a fleece, and adjust aspects of their procedures to the small amount of wool they are processing.

Judging live animals

Know the Scorecard. How many points are on wool quality? Depending on breed/color, there is a range of 35 to 60 points. What are the acceptable grade ranges? Personal story: One of my Columbia ewes that was Champion at Louisville twice almost didn't win. Judge Ron Guenther worried that the fleece was too fine for breed, and told me he almost didn't use her to win. The ewe in question had a 22.49 micron fleece with 1.1 side-to-bitch variation, and a standard deviation under 3. Comfort factor of 99.9. A truly great-fleeced sheep, but wouldn't have met the scorecard if she was half a micron finer. Guenther is the only judge I ever showed under who was concerned about grade-matching the score card.

What traits can you judge? Clean yield is out. Staple length is out. We don't have mandated shearing dates like some Australian and New Zealand shows. So commercially, the two most important traits are off of the table.

Density is a component of yield, but it tends to be inversely related to the other component of

Score Card for Wool Judging (commercial and breed fleece classes)

Estimated Clean Wool Content (yield and shrinkage) 35 Points

High fleece yield with low shrink. Light-colored yolk as free from adhering sand, dirt and vegetable matter as possible. Fiber should be strong throughout and free from breaks. Location of tender points very important. A distinct middle break goes to bottom of class. When testing strength pay particular attention to staple ends. In the US many flocks shear prior to lambing. This often results in a weaning stress break near the tip which increases combing and carding shrink. If tip break, estimate carding shrink and cut place significantly lower accordingly.

Length 25 Points

Should be combing or staple length for the grade:

- Fine- 64, 70, 80 spin count, < 22.04 micron 3 in.
- 1/2 blood- 60, 62 spin count, 22.05 to 24.94 micron 3½ in.
- 3/8 blood - 56, 58 spin count, 24.95 to 27.84 micron 3¾ in.
- 1/4 blood- 50, 54 spin count, 30.99 to 27.85 micron 4 in.
- low 1/4 blood 46, 48 spin count, 34.39 to 31 micron 4¼ in.
- Common and Braid, 44, 46, 36 and coarser spin count, 34.40 and coarser micron, 4½ in.

Lengths of more than a half inch greater than this are of no additional value except in increasing the yield. Uniform staple length is very important. Severely discount varied staple lengths including from sheep fitted prior to shearing.

Uniformity 20 points

Internal uniformity particularly important. Internal variation cannot be skirted and ends up in Top. Must have a good coefficient of variation. Side to bitch variation of secondary importance. Cut heavily for hairy bitch. Cut sharply for belly wool.

Crimp, Character, and Style 10 Points

Well defined crimp from butt to tip. Both frequency and amplitude of crimp important. Crimp related to curvature, resistance to compression, and bulk. Higher variation in uniformity associated with poorer crimp definition.

Purity, Color, and Luster 10 points

Free from hair, kemp, gare (medulated fibers), black or brown fibers (in white animals). Cut heavily for black or brown fibers and coarse hairy bitch. White to cream, bright color most desirable. Should be free from stains and with an even distribution of scourable yolk. Poly twine contamination goes to bottom of class.

yield—staple length. Density remains important, as it gives some indication of yield. Density also is important, because it inhibits dirt and VM penetration into non-covered fleeces.

Uniformity: From top to bottom. Belly wool should be a death sentence. GO LOW. It should be an embarrassment to only check fleeces from middle of the body and above. Can't you bend over, or what?

Belly wool does not grow staple, has a harsher handle, and is coarser than its crimp grading otherwise suggests. It does not yield, is less dense feeling when its higher grease is factored out, and so it is a negative indicator of the most important wool characteristics, which are otherwise unknown when judging on the hoof. So, belly wool loses points in the top three traits from our commercial scorecard. It is easily seen by over-elasticity, higher grease content, cross fibering, and poor lock line differentiation. Tips are noiled, pilled, or matted. Interestingly, people talk of carding belly wool out to disguise it in the fitting process—but they are actually making the problem more prominent. Bottom line: Great-fleeced sheep grow quality wool even on the belly.

Coefficient of Variation. Internal uniformity is critical for high quality top. Primary follicles produce longer, coarser fiber and medullated fibers. Primary fibers are therefore harsher to the touch. They also do not take dye equally. In unfitted fleece, primary follicle fiber is easily visualized as a halo effect or lamb coat effect, which is why fitting is not allowed in some New Zealand shows. Fleece tip can be viewed under stereo microscope to if see trimming or singeing has disguised lack of internal uniformity.

Uniformity from side to britch. The fleece should be uniform from shoulder to side to britch.

Environmental factors to consider

Environmental factors can impact fleece quality in live shows. In a fleece show they are irrelevant since you are judging an end product, but since in a live show you are trying to assess the animal's genetic ability to produce the end product, it is useful to know how environment can affect a fleece.

Staple length. While I have stated that you cannot evaluate staple length per se without mandated shearing dates, it is a very important environmental factor to consider when evaluating quality traits. It is much easier to have snow white wool, with a defined crimp, and great lock integrity on animals more recently shorn. When you find great quality traits on animals with full growth fleeces, it should always be noted and

rewarded. To assume that a more recently shorn sheep may have as good of quality traits as a sheep standing there in full fleece is to impede the likelihood of improving quality traits in the U.S. clip.

Feed. The nutritional plane can change mean fiber diameter 3 microns, or approximately 2 spinning counts. I read an Australian study where Merino rams varied as much as 5 microns when placed under extreme nutritional variations. Feed changes also show up along the individual fibers and is a source of tenderness.

Humidity and heat. High heat and humidity environments can significantly affect color and

◀ Management

Score Card for Wool Judging (hand-spinning fleece classes)

Shrinkage 30 Points

While shrink is merely a component of yield commercially, it is primary for spinners. Spinners care about cleanliness more than yield. Focus on the amount of total clean wool after shrink in the commercial application shifts to the amount of shrink (waste) for spinners. Extremely low levels of vegetable matter, dirt, wax, and suint (sweat) most important. The fleece must be well skirted. Fleece must be very clean. It is very hard to adequately wash dirty hand spinning fleeces and contaminated higher shrink fleeces cannot be spun in the grease if desired. Sheep often covered year around. More clean wool (yield) is obviously better than less clean wool, but a lot of dirty wool is of no value to the spinner or fiber artist.

Handle 20 Points

Fleece must have a soft handle—that is a primary selection criteria for spinners. No one wants to work with wool that is harsh to the hand. Handle involves several factors: fiber diameter, comfort factor (percentage of fibers <30 microns), coefficient of variation (CV, primary to secondary follicle ratio), individual fiber rigidity/compression, and scale structure (both prominence of cuticle scale height and their frequency. For example, high-luster Romney wool often has a soft handle relative to its fiber diameter because of the low frequency and prominence of its scale structure.)

Crimp, Lock formation, and Style 20 Points

Uniform crimp from butt to tip both in terms of amplitude and frequency. Again, indicative of better CV. Shows more uniformity of fiber diameter along length of fiber in the staple. Less likely to have nutritionally derived tender spots. Better crimp indicates better aligned follicles, which transposes to easier carding with less entanglement and less subsequent fiber loss. Dense well-defined lock bundle structure with little cross fibering (easier to work with in non-mechanized systems). Better crimp adds to elasticity and draping qualities.

Uniformity 10 Points

Uniformity of staple length and internal uniformity (CV) is still important, but front to back uniformity of grade less important since a whole fleece could be used for several different projects.

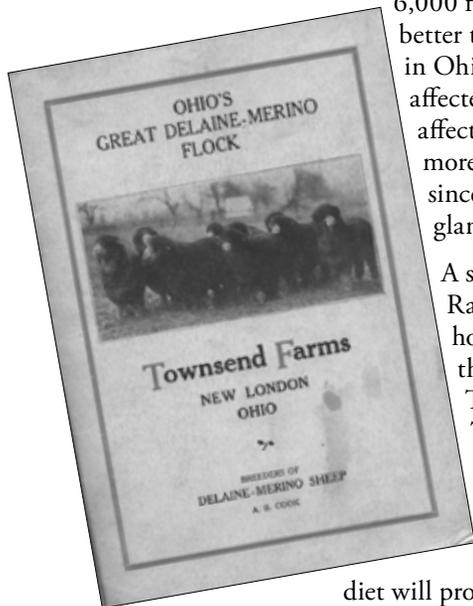
Soundness and Staple Length 10 points

Must have staple length and soundness (lack of tenderness) commensurate to handcraft requirement.

Color and Luster 10 points

White wool with high luster for grade preferred. It dyes more vibrantly and produces more striking end products. Natural colored hand-spinning fleeces must have >35% non-white fiber. Although some colors are more marketable than others, color is not a placing criteria.

Management ▶



A.B. Cook's marketing catalog from the 1920s, when he rented a railcar, filled it with Merinos, showed and sold sheep across the country.

grease content. If a sheep with a belly wool problem is coming off a Wyoming bench at 6,000 feet in altitude, it will look markedly better than it does after spending a year in Ohio. Although color and grease are affected by these factors, they are still affected more by genetics. A sheep with more secondary follicles will be whiter since only primary follicles have sweat glands.

A story: When judging my first Rambouillet National, I placed a horned ram in 10th and I commented that his fleece was coarser than ideal. The Texas owner was convinced that Texas sheep were always the finest. He cored the wool bales when his ewes were shorn and the core was fine. He didn't seem to consider the fact that ewes on a sand and cactus diet will produce much finer fleeces than a show ram who spent his whole life on a self-feeder. At the end of the show I could see smoke was still coming out of his ears. I thanked the people for the opportunity to judge and said that sale day was the important day—that by my placings I had just made a sale order—and that I hadn't said their spouse was ugly and their kids were stupid. It is just a sheep show. Buy and grow what works for you and spend less time worried about who gets the ribbons.

I really liked one Montana breeder, particularly because this story affected his view of eastern sheep. Shortly after I started raising Columbia sheep, I bought a ewe from him at the National Ram Sale in Utah. He declared at the sale it was the best fleeced ewe he ever raised. The year after she came to Ohio's heat and humidity I took her fleece to the National Sale purposely so he could see the environmental effect on his ewe's fleece. The fleece was 8th in a class of ten. I asked him to come look at my fleece and tell me what was wrong with it. He said it was too greasy and yellow and that it just wasn't very good wool; that I just needed better genetics. I then told him that it was the fleece from the National Ram Sale ewe—and now he could see what a high heat and humidity environment could do to wool that had been grown under his ideal environment.

My conclusion for you is: Always remember that nobody's eyes are calibrated in microns (unlike the OFDA machine at right). That is why there is objective testing. Make your best effort to judge wool well while knowing you may be wrong.



When I began shearing 15 years ago, I rarely encountered lice. But over the years lice have become more and more of a serious issue, affecting the flocks of more than half of my clients.

LICE!
(we need to talk)

Two types of lice infect sheep: biting and blood sucking. Blood-sucking lice (*Linognathus* species) include the sheep foot louse, which is usually confined to the hairy parts around the hoof. The majority of lice infestations I see are caused by the biting variety, *Bovicola ovis* (formerly called *Damalinia ovis*).

It is species-specific and can only live on sheep, feeding on flakes of dead skin, secretions, and bacteria normally found at the surface of the skin. This causes irritation and therefore sheep bite, rub and pull at their wool.

They are found predominantly on the neck, brisket, and withers region (areas that are hard for the sheep to scratch). They are tiny (just 2 mm long) and light brown to reddish in color.



The eggs are white and are attached to the wool fiber. Lice often favor one or two animals in a flock, so it is not unusual at all to see just one infested sheep in a flock (when the problem is beginning).

As lice populations increase, you will notice symptoms such as “dreading,” or rolled wool locks hanging off the sides of the sheep (from rubbing on fences or posts). The topline wool will usually remain in good shape with the sides showing rubbing and in advanced

cases pulling and bare patches. As the infestation progresses, you may see yellowing of the wool; in extreme cases the wool will smell yeasty and dank when shorn and it will be an odd color, ranging from dark yellow to orange-brown. Biting lice love cold temperatures, which is why you tend to see the most symptoms of lice during the winter months.

When shepherds discover their sheep have lice, the first question they ask is where it came from.

**Emily Chamelin
Hickman**

*is a professional shearer
and MSBA Secretary.*

From my observations, most lice infestations start at county fairs, sheep shows, auctions, and festivals. Anytime sheep come together there is risk of lice transmission. I see it so frequently that I advise shepherds to presume their sheep might acquire lice at shows and treat accordingly.

If you are buying sheep from someone who shows or exhibits animals, assume the sheep have lice (just as you presume they carry internal parasites) and treat them before mixing them in with your flock. The sheep you bought at a show from a conscientious breeder might have picked up lice there.



You dirty Bovicola ovis!

Shearers also must take precautions as they move from flock to flock, cleaning equipment and accessories (even changing clothes) if they have encountered lice in a flock. Australian research has shown that lice may survive for a few days on shearers' moccasins or clothes.

The second question shepherds ask is whether their wool clip is damaged or ruined. The answer depends on the level of infestation. With new cases in a previously lice-free flock or on sheep showing few signs of rubbed wool, your clip should be fine to market as you normally do.

Shearing removes about 30 percent of the lice. Most die in the bagged fleece within a week, but some may survive for up to 3 weeks. Their carcasses then dissipate into the wool.

I know of fleeces from sheep shorn days before a fleece show that were rejected because live lice were found in the wool. But the fleeces of sheep with active cases of lice, shorn a month before a fleece sale, will not be so recognized.

Do lice damage the actual wool fiber? No. They don't eat the fiber—but they can cling to it with their mouths (as scanning electron micrographs of lice-infested fibers show) to avoid being rubbed off by the sheep.

It is the sheep who damage the fleeces by scratching the itch. You will see pulled fibers or wool tags on the side or rib area of the sheep, in extreme cases the sheep will pull their wool out to get at the lice. The sheep's rubbing can cause felting and matting of the fleece. In severe cases, the fleece becomes discolored and begins to smell. The irritation stimulates the skin to produce more lanolin and yolk. Lousy fleeces will have lower yields (after washing weight) than clean fleeces due to this increased grease.

Once you face the ugly fact that your flock is infested (or you want to be proactive following a fair or festival), make a treatment plan. Treatment with a pour-on pyrethrin product is

effective—if you follow the product directions, administer the correct dosage by weight (underdosing encourages resistance), and repeat in 21 to 28 days to kill the larvae that hatch from remaining eggs. These chemicals work best once the sheep is shorn. Small hand-held pressure sprayers work well. Drizzle the chemical the length of the topline with additional spritzes on the chest and underline. These chemicals are safe to use on pregnant and lactating ewes—but pay attention to withdrawal dates for animals going to slaughter. Consult with your veterinarian if you have any concerns or questions.

If you can't shear your sheep when you notice symptoms, or don't shear all your sheep at once, the problem is more complex. Even if you treat all the sheep you do shear at shearing time, you are facing a long-term lice-suppression problem, which requires a treatment plan incorporated into your flock management.

Shearing ewes after lambing allows some of the little buggers to jump onto the lambs to escape (and then some will jump back on the ewes when the chemical wears off). Treating sheep in full or partial fleece is ineffective. Treating with small amounts of pyrethrin before going to a festival or show can lower the odds that you will bring bugs home with you—but not to zero.

If you are tempted to treat sheep in full fleece before shearing—recognize that (in addition to this strategy being ineffective) you might be exposing your shearer to these chemicals in cumulatively risky amounts. Don't poison your shearer! Talk to him or her before attempting any treatments in the 3 months leading up to shearing.

If you are worried about lice damage to your wool, then consider shearing earlier. Or bite the bullet, shear everything at once, adhere to a rigorous protocol for eradication, and start anew.

If you purchase sheep at a show or sale or are buying animals from someone who shows, your best bet is to shear and treat the animal before it gets anywhere

Sources

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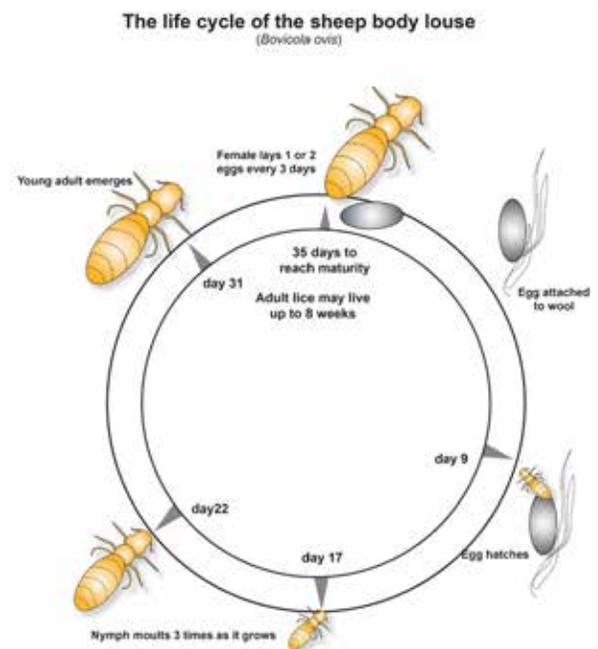
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[Image from Department of Agriculture and Food, Western Australia]



Management ▶ near your other sheep. Shear them before they leave their home farm or immediately upon getting them to your farm, then treat them. If you have purchased an animal with lovely wool that you would like to grow out a bit before shearing, treat the sheep in the fleece but plan to treat all your sheep at your next shearing. It is easier to assume lice are there and be prepared, than to wait for a problem to become established.



First chew, then rub, then chew again. Not how she'd like to be spending her day. [Image from Lice Boss website]

My last bit of advice concerns what I'll call "internet treatments." Diatomaceous earth is frequently touted online as a "natural" method of lice treatment. I'm not going to address claims about its efficacy, but consider



Gotlands: A multipurpose breed

Polly Matzinger's

flock of Gotlands grazes in Frederick County, Maryland.

A nicely fleeced Gotland.



How does one choose a sheep breed? Well, for some there is research into size, prolificacy, land required, meat vs. wool, etc. They may inherit sheep from family or adopt from friends and just fly by the seat of their pants and learn as they go. For others, the "cute" factor looms large (who can resist those adorable lambs romping impishly around the pasture, curiously coming up to you for a scratch?).

For me it was a little bit of all three. Once I saw the Gotland breed I was smitten.

Gotland sheep originated on the Island of Gotland in Sweden. The native horned Gute sheep were crossed with Romanov and Karakul sheep brought from Russia by the Vikings in the early 20th century. Gotland sheep semen was imported into the United States in 2003. The progeny developed from those sires has been selectively bred to be a multipurpose sheep, hardy and adaptable.

They are naturally polled, with no wool on the face or legs. They are short-tailed, with a hair-covered tip. Gotlands lamb easily and often produce twins. They have an abundant milk supply. This breed is considered a medium-sized sheep (and so easily handled alone by those with a small frame like me). The ewes are from 120 to 150 pounds with a height of 25.5–30 inches at the shoulder. The rams range between 165 and 190 pounds with

it from the shearer's perspective. Diatomaceous earth produces the same results as dumping a load of sand on your sheep. *It's dirt.* Putting dirt into your wool not only makes the wool less valuable, it dulls shearing equipment and makes machines run hotter.

If you have blood-sucking lice (you may notice redness and flaking just above the back of the hoof when you trim feet, or in other hairy areas), again the treatment is topical, with pyrethrins.

Bottom line, folks: Consider a maintenance delicing treatment after shearing. It would work wonders in setting back the lice population in our region and would mean better wool and happier, healthier sheep.

a height of 29.5–32 inches.

One of the wonderful qualities of Gotlands is a beautiful fleece. It is long and full of luster, with defined curls. The wool is single-coated and fast growing, requiring two shearings per year. An average fleece weighs is 5–10 pounds, with a micron count of 27–34, with lamb's wool in the low to mid 20s. Lambs are born black and their wool color begins to change within the first few months. Swedish Gotlands range in color from pale silver to pewter to almost black.



Gotland locks adorn a felted scarf that Australian maker Woolysquirrel offers on Etsy.

The wide range of colors are beautiful and blending produces eye-appealing variegation. Their wool overdyes beautifully. For knitters, Gotland yarn is lightweight and has a lovely drape. I find their winter fleece to be coarser and more fuzzy, and perfect for felting. Felters also prize the locks for felting along the edges of garments. The pelts are especially prized in Europe because of their luster and gorgeous locks, and their meat is sweet and tender.

These amazing creatures are so friendly and very docile, they will win you over as soon as you meet them. Whether you are looking for a fiber flock animal, a mixed purpose sheep, or just a pet, the Gotland breed is an excellent choice.

Have you heard the term “fibershed”? Think of natural cycles—the water cycle, the carbon cycle.

Creating a fiber cycle in the mid-Atlantic

The concept of a fibershed is to create a Cradle-to-Cradle® (see box and diagram) system of creating clothes from

regionally grown fibers, natural dyes, and local talent. It is the new local clothing movement (similar to the local food movement), where the goal is to grow, process, fabricate, and market textiles and garments within a discrete physical area. The fibershed concept began in California (see fibershed.org) and is spreading around the globe with the creation of numerous regional fiber systems.

They consider that the system begins with the health of the soil and then to the plants that grow fiber or forage that nourishes the animals that produce fiber, which then is eventually recycled to help build soil and protect the health of our biosphere.

Several Fibershed affiliates are now starting up in the mid-Atlantic region, where there are great resources, talent, portions of the necessary infrastructure, and awareness and interest in sustainability goals.

Maryland Fibershed

Transition Howard County is a nonprofit focused on creating sustainable and thriving communities within Howard County, is creating the Maryland Fibershed. The goal is to grow a resilient and local textile supply chain in Maryland. The mission of the Maryland Fibershed is to increase interest in using local, sustainable materials among fiber artists, hobbyists, and clothing makers.

This organization has created a free directory to promote the organizations that are part of the Maryland Fibershed system to help people and organizations easily find local fiber suppliers and customers. The directory includes farmers, ranchers, mill owners, felters, spinners, weavers, natural dyers, and more. Any organization that is primarily located in Maryland and participates in any part of the fiber lifecycle can be listed in the free Maryland Fibershed Directory.

Transition Howard County wants to help local fibershed organizations thrive. The directory is just the first step. A variety of activities are being planned to increase interest in local fiber supplies



and products such as tours of organizations that are part of the Fibershed. If you would be interested in hosting a tour and highlighting your sustainable practices or if you have other suggestions for activities to promote and grow the Maryland Fibershed, please contact Margo Duesterhaus at margo@transitionhoco.org.

If you would like to be listed in the directory, please fill out the online form here:

<https://www.transitionhoco.org/maryland-fibershed/directory-form>. Since Transition Howard



County is focused on sustainability, please be sure to indicate any sustainable practices, such as reuse, recycling, waste reduction, use of local materials, and/or any activities that build community in the appropriate place on the form.

Chesapeake Fibershed

This emerging Fibershed affiliate encompasses the watershed of the Chesapeake Bay area, which stretches from Virginia and parts of West Virginia up through Maryland and parts of Delaware and Pennsylvania.

Their initial goals are: *(continued on page 14)*

Cradle to Cradle®, developed in the 1990s by Michael Braungart, William McDonough, and the scientists of the German firm EPEA, is a sustainable design concept inspired by cycles in nature, in which products are created according to the principles of an ideal circular economy. It is about eco-effectiveness and goes beyond conventional sustainability tools and approaches.



National views ▶

The Maryland Sheep Breeders Association graciously helped send a few board members to the ASI Convention in New Orleans. I'm parsimonious, hate to leave home, and worry about things going wrong on the farm in my absence. Plus, the best farm-sitter available was my long-suffering wife, and I was hesitant to make my bottomless pit of gratitude any deeper. Nevertheless, it was impressed upon me that the experience would be illuminating and would add to my knowledge as a board member and shepherd. So I went.

Impressions of the 2019 ASI Convention

Peter Austin is an MSBA Board member.

It was illuminating all right, but strangely familiar to the topics that the MSBA Board deals with throughout the year. How do we benefit our shepherding constituents and grow the industry? At the convention, it was just on a much bigger scale.

A subset of ASI is the American Lamb Board. I attended a number of their meetings. One of

their primary efforts is to grade lamb cuts so consumers can be presented with consistency and high quality. In conjunction with the University of Colorado, researchers are developing a machine (a rapid evaporative ionization mass spectrometer) for use in this testing. It can spot-burn a piece of meat and rapidly read the vapor. Along with this apparatus there was group of volunteer students to taste test which meats were most appealing. That way the data might mean something.

What I came away with was great admiration for trying to codify what to me is incredibly subjective (taste) and equally variable (lamb). The machines are expensive, implementation would be possible but a pain in the neck, and more research was necessary. I also learned there was a strong consensus that grain-finished lamb tastes better than grass fed. That being said, we were served lamb shanks at an ASI luncheon. Emily Chamelin Hickman said they were from big feedlot lambs. The shanks were pretty greasy and Jan White (an MBSA member) couldn't eat hers.

One interesting seminar dealt with young entrepreneurs. The shepherding family nationwide has the same color as Maryland—gray. There are some young folks who have embraced the industry, but overwhelmingly it's an older crowd. So, it was invigorating and encouraging to see a group of under-40s who were raising sheep and making money. Most of the speakers came from farming families. They cultivated relationships with stores and meat purveyors who wanted a quality product and a direct link with the grower. It seemed these young shepherds appreciated the 21st century marketplace and recognized the ethnic population as a catalyst for growth and not a marginal group easily dismissed.

My take is that since the end of the Cold War, when stockpiles of wool were no longer needed for uniforms and generous subsidies for wool ended, the sheep industry has become a marginal concern for the U.S. Department of Agriculture. Attending the convention, I was impressed with how poorly we stack up to cows, chickens, and pigs. The needs we have regarding medicines, vaccines, and wormers are not considered important enough by Big Pharma or the government to invest the required funds. It was pretty disheartening. There are Plan B's, but no big sea change in funding and support.

Also confirmed was my impression that the ASI is a Western, big-flock-dominated organization. California, Texas, Colorado, Montana, Idaho, the Dakotas, as well as the Midwestern ag states drive the agenda and the conversation. This makes

continued on page 14



FOLLOW THE HERD

TO

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Nineteen youth and two adults participated in the 2018 Maryland Make It with Wool Competition this past October, and our Senior and Junior champs made a fine showing at the National MIWW competition in New Orleans in January.

MIWW winners shine in New Orleans

Senior Champion: Samantha Fielder, from Harford County. At the National Competition in New Orleans, Samantha was in the Honor Group (top 10) of the Senior Division.

Junior Champion: Karli Abbott, from Talbot County. Karli was 2nd Runner-up in the Junior Division at the National competition.

Preteen Champion: Kailyn Donahue from Baltimore County.

Adult Champion: Mary Ellen Clark from Frederick County.

Stop by the Make It with Wool booth next to the Information Tent at the Maryland Sheep & Wool Festival to see their garments close up, and come to the Wool Fashion Show at noon on Saturday in the Pavilion.

Stop into the MIWW booth for a mini wool workshop on needle-felting, held hourly. Also, be sure to stock up on the Wool Wax Hand Crème! Profits from our sales support the Maryland MIWW Program.

The 2019 Competition will be Saturday, October 12, at the Baltimore County Extension Office in Cockeysville. Registration information and entry forms will be available at the Festival. For more information, email mdmiww@aol.com.

Sewing with Wool School in March at the Baltimore County Extension Office was very successful, with 18 youth participants, eight coaches (mothers, grandmothers, friends), and eight teachers. Five participants were new to MIWW.

March sewing school draws a crowd

The morning session focused on specific sewing techniques appropriate to age and experience participants. Topics included seam and hem finishes; pressing techniques for wool; hand and machine stitched hems; zipper insertion; edge-, under-, and top-stitching; piped seams.

Creativity with decorative yarns, threads and machine stitches was the focus of the afternoon session. Participants designed and created an original lined wool scarf.

Copyright Maryland Sheep News, Spring 2019



Judy Williamson

is the Maryland MIWW coordinator

At right, Make It With Wool champions, from left to right: Senior Samantha Fielder, Adult Mary Ellen Clark, Junior Karli Abbot, Preteen Kailyn Donahue. Below, Sewing With Wool School participants wear the scarves created at the session.



Marketing ▶

- Engage fiber producers and identify their fiber production output.
- Identify buyers and their fiber needs.
- Identify existing marketplaces (fiber festivals, fiber and yarn marketing businesses) and work to expand them.
- Establish a web-based marketing program to enhance links between producers with consumers.
- Provide producers with connections to fiber processors.
- Explore special marketing endeavors.



FIBERSHED

Contact Marian Bruno or Gretchen Frederick at chesapeakefibershed@gmail.com, and visit the

Chesapeake Fibershed Facebook and Instagram pages.

The Maryland and Chesapeake Fibersheds are coordinating their efforts.

Sligo Creek Fibershed

This Silver-Spring-based group has a local educational focus for school-aged children. Contact Kerstin Zurbrigg at kerstinzurbrigg@gmail.com.

If you are interested in helping reorganize our regional clothing production system, there's lots to do, so jump on board!



National views ▶

sense. Unfortunately, it comes with a lack of regard for the Eastern states, resentment of cities and suburbs, a hatred of big government, and a fear of multiculturalism and progressive politics.

There was a talk by a young lady, Danielle Beck, from the National Cattlemen's Beef Association. She spoke against deceptive marketing by vegan food groups and the increasingly varied line of animal-free meat substitutes. Alarm, alarm! Our culture is threatened and while the government is too big and over-reaching, it's not big enough to keep evil vegans from using dishonest trade practices to undermine our world. There also was a visit from a Texan legislator and champion of agriculture. Fellow MSBA Board member Jeff White attended and was appalled at the extremity of the politically conservative presentation.

Everyone has legitimate concerns, whether it is fear of militant vegans or government obtuseness. Democracy is messy, and middle grounds are complex. Blah blah blah. I just figured I was on someone else's turf and there to learn and understand. Whether I was talking to a Wyoming rancher with 3,000 sheep or a big honcho from the San Angelo stockyard, if I declared with humor the relative small size of my operation, most would graciously concede "it's all hard work." Thereafter I'd learn something and it was fun.

New Orleans was completely different from any other American city I'd visited. It is an old city and the Marriott was right up against party central and the best in window-shopping. Jazz bands (and open containers were a common sight). Given the atmosphere, I regretted my advanced age—but it was nice to visit.

Thanks to MSBA for helping me attend.

State Fair sponsorships sought

The Maryland State Fair Sheep Show is seeking sponsors for breed awards at this year's Fair, August 22 through September 2: \$50 for the breed or \$25 for a ram or ewe. Contact Denise Ziegler at dilmom@yahoo.com if you would like to be a sponsor. This year's Open Sheep Show is Sunday, August 31.



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Contact the editor for permission to reprint articles.

Ad Rates

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Half horiz.	7.5 x 4.25	
Third	7.5 x 3	\$45, \$150/year
Quarter	3.3 x 4.25	\$30, \$100/year
Biz card	3.3 x 2	\$15, \$50/year
Classified	230 characters	\$10

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Maryland Sheep Breeders Association:
marylandsheepbreeders.org

Maryland Sheep & Wool Festival:
sheepandwool.org

like us!



The Maryland Sheep Breeders Association Board of Directors meets every other month. Meetings are open to members. For minutes of meetings and meeting dates and times, contact the MSBA Secretary, Emily Chamelin Hickman, aeriedairy@yahoo.com.

Membership application
 MARYLAND SHEEP BREEDERS ASSOCIATION

Name: _____

Farm Name: _____

Address: _____

City, State, Zip: _____

Phone: _____

Email: _____

Please include me in the MSBA Breeders Directory.

Web URL: _____

Breed(s): _____ No. Ewes: _____

Send form and \$25 check made payable to MSBA to Kris Thorne, Membership Chair, 1130 Martin Drive, Westminster, MD 21157. She will contact you for additional information for the breeders directory and online profile.

Join *the*

MARYLAND SHEEP BREEDERS ASSOCIATION

...and become part of an active organization that sponsors the Maryland Sheep & Wool Festival (the premier event of its kind in the nation), Sheep Shearing School, various youth activities, and a variety of educational functions.

You can join and pay online at <http://marylandsheepbreeders.org>, and fill out your member profile page. If you prefer to register by mail, fill out the form at left and mail with your \$25 check.

Here are sponsored events and activities for 2019:

- February 8-9: Beginning Shearing School
- February 23: Shepherds Seminar Day
- May 4-5: Maryland Sheep & Wool Festival
- October 25: Annual Meeting & Dinner

As a member you will:

- join an active and friendly community of shepherds.
- receive the quarterly *Maryland Sheep News* and keep up on events, get educational articles, and have a local place to advertise.
- pay a reduced commission on all fleeces sold at the Maryland Sheep & Wool Festival Fleece Show & Sale.
- receive free admission to the Maryland Sheep & Wool Festival and be mailed a free copy of the catalog.
- Be able to promote your farm or business through a free profile page on the MSBA website.

Annual membership/subscription fee: \$25. The membership year runs from October through September. Dues for membership received prior to June 1, 2019, will be accepted as paid through September 30, 2019. Dues received on or after June 1 will be accepted as paid through September 30, 2020.