



# Maryland Sheep & Goat Producer



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## Nominations Being Accepted for Goat Pasture Test

Nominations are now being accepted for the 2006 Western Maryland Pasture-Based Performance Test for Meat Goats. The location of the test is the Western Maryland Research & Education Center (9 miles south of Hagerstown). The test will run from June 10 until October 7.

Male goats of any breed or breed cross, born between December 15, 2006, and March 15, 2005 (inclusive) are eligible. There will be a fee of \$75 per head for the test. \$20 is due at the time of nomination. Producers may nominate up to 5 goats, for a maximum test group of 50 goats. The test is open to producers in any state, but Maryland producers will be given

first option to fill half of the test.

Goats will be accepted to the test on a first-come, first serve basis. Nominations will be accepted until May 20. Contact Susan at (301) 432-2767 x343 or [sschoen@umd.edu](mailto:sschoen@umd.edu) to receive a copy of the Guidelines and Protocol and a nomination and release form. The guidelines and nomination form can also be downloaded from the web at [www.sheepandgoat.com/programs/pasturetest.html](http://www.sheepandgoat.com/programs/pasturetest.html).

[www.sheepandgoat.com/programs/pasturetest.html](http://www.sheepandgoat.com/programs/pasturetest.html)

## Fecal Egg Counts: What Do They Tell Us?

by William Shulaw, DVM  
Extension Veterinarian  
The Ohio State University

In our last electronic newsletter article, I wrote about using several approaches to monitor sheep and make some decisions for selective deworming. One of these is the use of fecal egg counting techniques. What do we mean by fecal egg counts (FECs)? Most techniques to examine feces (manure) for parasite eggs involve mixing the sample with a concentrated sugar or salt solution that has a relatively high specific grav-



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ity. This lets the worm eggs float to the top of the liquid where they are collected on a glass or plastic slide and then examined under a microscope. The heavier material tends to sink more so one can look for the eggs on the top of the liquid. However, as opposed to a simple flotation procedure that only allows one to see the different kinds of eggs present, FECs provide an estimate of the number of eggs present in a specific quantity of manure. They are usually expressed as the number of “eggs per gram” (epg) of feces. Therefore, they are termed quantitative. Although simple flotations can give us some information, the most valuable information comes from quantitative egg counts.

The most common method of determining FECs for sheep and goats is the McMaster technique. Although there are several variations of how this is done, the basic method uses a weighed fecal sample, a known dilution in the flotation solution, and a specialized counting slide to count the eggs. (Pictures of the slides and technique are in the ASI Sheep Production Handbook). After the slide’s chambers have been filled with the manure suspension in flotation solution, the eggs are counted under a grid that defines a known volume of the suspension. Usually, the area under two grids is counted and the results averaged and multiplied by a dilution factor. Because the number of grams of feces and their dilution is known, the result gives you an estimate of the number of eggs in a specific amount of manure eggs per gram (epg) of feces. McMaster counts are not harder to do than simple flotations, and the equipment is relatively inexpensive and reusable. Many veterinarians in Ohio are trained to do them, and some currently offer this service. Most methods require at least two grams of manure, and usually four grams are used as this amount provides a more accurate estimate. This means you need to provide your veterinarian with about a tablespoonful of manure for a proper exam. One pellet is not enough.

### **How many samples are enough?**

Research and observations over the last 40-50 years consistently show that egg counts, as well as worm burdens, from a group of individuals are not distributed across a typical bell shaped curve. Usually, only a few individuals have very high counts, and even when severe

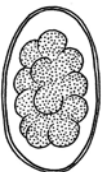
parasitic disease is present in a group, there frequently are animals in that group with very low FECs. For example, in a relatively recent investigation of ivermectin resistance where lambs were actually dying from parasitism, the average FEC for a group of 46 lambs was 3800 epg of feces. However, two animals had FECs of zero and the lowest twenty one were each less than 1000 epg. The top five animals had counts of 13,800; 20,050; 23,950; 25,000; and 29,250 epg. If you wanted a reliable estimate of the average count for the group, would samples from three animals, or even five, be enough? Not likely. Generally speaking, you need samples from about 15 animals to get a reliable estimate of the group average. For those of you reading this that are statistically inclined, you are thinking “Yes, but using a simple numeric average for populations like this is flawed!” You are correct, however, for reasons I can’t really get into in this article, a simple group average is the accepted measure used by parasitologists the world over.

### **What can fecal egg counts tell us?**

Like most measurements in biology, FECs are a snapshot in time. They may remain rather stable over time, or they may explode to very high levels in one to two weeks; especially during summer weather conditions favorable to *Haemonchus contortus*.

On the farm I described in our last article, the weekly FECs performed for the group of March-born lambs maintained continuously on pasture averaged 0; 42; 89; 1,050; and 1,950 epg from May 14 through June 11. This dramatic change was the result of the lambs’ gradual increase in consumption of infective larvae as they consumed more forage; the buildup of worm larvae on the pasture as a result of the prolific egg producer, *Haemonchus*, becoming the predominant worm species; and the fact that the parasite life cycle from egg-to-egg takes about 21 days for completion under ideal conditions. It is also characteristic of what happens on many Ohio pastures in a typical summer.

Therefore, a single egg count for a group of lambs or ewes taken out of context with other information is not predictive of what is going to happen nor is it a good measure of the worm burden the animals are carrying. Nevertheless, FECs do give us some information about



what is happening at the time the samples are taken. The two best uses for FECs are to monitor the rate of pasture contamination and to determine whether drug resistance is present in the worms on the farm.

### **Monitoring pasture contamination**

Monitoring the rate of pasture contamination can be a tool the producer can use in making decisions such as when to move animals from a pasture to avoid a buildup that may lead to a dangerous situation, or it might be used to assess how much contamination is occurring in order to make decisions about future use of the pasture during that grazing season. For example, if pastures used for lambing out ewes in April and May have received a relatively heavy egg burden, it may be wise not to graze them with lambs later in the summer. They may be safe for dry ewes and could be used by an unrelated species. Monitoring contamination rate can help make that decision.

Routine monitoring of FECs following the deworming of groups or selected individuals can also provide information as to whether deworming was successful. In our experience, if the average FEC of a group is much above 100-150 epg 10-14 days following a deworming, either the drug was not as effective as it should be or the egg count was very high when the animals were treated. This should be a red flag to signal that further information about dewormer effectiveness is needed. If one were to see an average FEC of above 2000 epg on samples collected thirty days after deworming a group of lambs, it may indicate that the pasture they have been grazing is pretty heavily contaminated. This is not an unusual observation when non-persistent dewormers such as Valbazen®, Tramisol, or Ivomec® Sheep Drench have been used and the lambs continue to graze a contaminated pasture.

### **Determining whether drug resistance is present**

The most readily available method to determine the effectiveness of a dewormer is by using FECs. The most common approach used for sheep and goats is to collect about 15 samples from animals at the time they are treated, determine the group FEC, and then collect sam-

ples again from those animals 10-14 days later and again determine the FEC. If the drug is working as we would like it to, there should be at least a 95% reduction in the average FEC for the post-treatment samples. It is best to sample the same animals both times, but if 15-20 animals from the group are used, it may not always be necessary.

An alternate approach uses an untreated control group of animals. In this approach, the test group of 15 or more animals is treated with a dewormer, and then 10-14 days later, FECs are determined on samples from the animals in the test group and for a similar group of untreated animals. As in the other method, we are looking for at least a 95% reduction in average FEC in the treated group compared with the control animals. This method accounts for variation in the groups that might not be attributable to the dewormer; such as we described in the last newsletter. It also has the additional advantage of requiring considerably fewer total samples if several drugs are being tested at the same time because both pre- and post-treatment egg counts are not required and several test groups can be compared to the control group. You do have to know, or expect, that average egg counts will be above at least 250 epg in the control group for valid comparisons. Lambs or ewes can be used with either approach but don't mix the two in a test.



I am often asked when to perform resistance testing. This is a good question, and there is no single correct answer I am sure. However, I usually suggest to our producers that if resources are limited, testing should be done in mid to late summer. My rationale for this is: At the present time *Haemonchus contortus* is the most important worm we have to deal with here in Ohio. Although there are several common species of worms in sheep and goats which produce similar-looking eggs that can't be readily distinguished from *Haemonchus* under the microscope, it is usually safe to assume that by July, at least 90-95% of the eggs of this type will be *Haemonchus*. Therefore, resistance testing here in Ohio in mid to late summer will give us a good idea of what dewormers will do against this very important worm spe-

cies. *Haemonchus* season begins earlier in the year in the South, and it may not be the most important worm in the more arid regions of the West, so producers in these areas have to adjust their approach to their conditions.

Most parasitologists today recommend conducting resistance testing at least every two years, and testing for resistance does require significant work and expense. However, not knowing whether the dewormer you are using is effective can be more than expensive. It can be disastrous.

This article was previously published in the September 2004 Sheep Team Newsletter from Ohio State University. It is reprinted with permission of the author.

## Research Update

### Dipstick Spots Worms

Sheep farmers will welcome a quick and easy test for Barber's Pole Worm this spring thanks to research from the Australian Sheep Industry Cooperative Research Centre. The test detects blood in the sheep's feces to identify whether Barber's Pole Worms are present and what level of damage they are causing.

The breakthrough came when Dr. Ian Colditz, a Senior Research Scientist with CSIRO Livestock Industries in Armidale, asked, "Why don't we just test for blood in the sheep's feces?" Drs. Colditz and Le Jambre have since devised a method to do just that.

Unlike other sheep intestinal worms, infections with Barber's Pole Worm can rise very rapidly resulting in deaths only weeks after a drench due to massive blood loss from these blood-sucking worms.

Dr. Brown Besier, Principal Veterinary Parasitologist from DAWA and Parasite Management Program Leader for the Sheep CRC said, "In southern Australia this is a sporadic event happening in some years when the combination of rain and temperature is just right. It often catches farmers off-guard in early summer and late autumn, when there can be considerable sheep losses."

To do the test, farmers will collect fresh dung from the ground. After mixing and diluting for about 3 minutes, they will dip a test

stick into the final mix and read its color in a further 60 seconds. On the spot they'll have an indicator of the infection in that mob and can follow recommendations on whether to drench or not.

The Sheep CRC are working with a commercial company to release the test later this year through rural merchandisers.

Source: CSIRO Australia

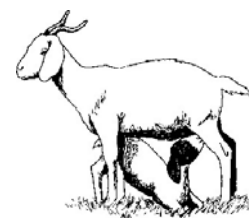
### Evaluating Doe Performance

Researchers at Tennessee State University are comparing the performance of Boer (n=43), Kiko (n=38), and Spanish (n=47) does under southeastern U.S. conditions. Does were exposed to bucks in single sire groups (3 bucks per breed) using a complete three breed diallel<sup>1</sup> mating scheme. Diallel is a mating scheme that uses each parent as both a male and female.

At spring kidding, 39 Boer, 38 Kiko, and 45 Spanish does produced at least one kid. Dam weights at kidding were 94.4 lbs. for Spanish, 108.9 lbs. for Kiko, and 109.3 lbs. for Boer. Litter size was affected by both sire and dam breed and was highest for Boer x Spanish matings, 2.32; and lowest for Spanish x Boer matings, 1.53. Birth weights were similar among dam breeds, but heavier for Boer-sired kids, 7.7 lbs. than Kiko or Spanish-sire kids, 7.0 lbs.

By weaning at 3 months, 33 Boer, 38 Kiko, and 45 Spanish dams had weaned at least one kid. Litter size was not affected by dam breed. The ratio of litter weight to dam weight at weaning was greater for Spanish than Boer does, 71 vs. 58. Kiko does were intermediate at 66%. Kid attrition rate was higher for Boer dams (38%), compared to Spanish and Kiko dams (8%).

Pre-weaning average daily gain (ADG) was lower for kids from Spanish dams than kids from Boer and Kiko dams. As measures of whole herd reproductive performance, percent kid crop and adjusted litter weaning weight per doe exposed were lower for Boer dams (138%, 49.1 lbs.) compared with Kiko (183%, 70.6 lbs.) and Spanish dams (191%, 60.5 lbs.).



The preliminary results of this experiment indicate that breed affects doe performance.

### Doe Performance (at weaning)

Doe breed	Percent kid crop	Adj litter wt. (lbs)	Efficiency <sup>1</sup> %
Boer	138	49.1	58
Kiko	183	70.6	66
Spanish	191	60.4	71

<sup>1</sup>Efficiency = litter weight/doe weight

### Kid Performance

Dam breed	Pre-weaning ADG	Adj weaning wt.	% attrition
Boer	0.387	35.1	38
Kiko	0.405	36.7	8
Spanish	0.355	32.6	8

Source: 2005 ASAS Southern Meeting Abstracts. *Journal of Animal Science*, Vol. 83, Supplement 2

## Lambing and Kidding Report from UMES

by Dr. Niki Whitley  
University of Maryland Eastern Shore

### Kidding

Last year, I bought some Boer crossbred kids for research and decided to keep the females to start a commercial meat goat herd. I kept 8 back from our herd, and I also bought a few Spanish doe kids. All but 5 of the 40 yearlings were exposed late for possible June kidding to 2 different registered Kiko bucks (or the Spanish to the Spanish buck). The 5 yearlings not bred to Kikos were bred earlier to the fullblood "Eggs-Ryals Magnum" buck for potential "show" kids. They are due any time now.

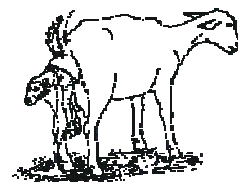
All the adult mature does bred at UMES were Boer, except one super-producing Myotonic (Fainting Goat). This year, we kidded in January again so that we could have the goats finished before we began lambing. We had 19 adult does. Half the does were exposed to a fullblood Boer buck with Eggs-Ryals Magnum

and other ennobled bucks in his pedigree while the other half were exposed to a pure-bred, unregistered Kiko (except 2 which were bred by a fullblood Boer with Eggs Stoney and Eggs Mark in his pedigree).

We had 3 singles and 40 total kids, all born live and all still alive. That's 2.1 live births kids per doe exposed and kidding, weighing an average of 9.1 lbs each at birth. One doe that had a stillborn single last year and a ton of milk had apparently gotten mastitis. She did not have any milk this year. So, we have her 2 as bottle babies and another that someone handled before the mother had bonded with it and then she would not take it. She took the other 2 and I guess she figured that was plenty. So we have 3 bottle baby goats born at UMES.

We also have 9 commercial does and their kids and 4 other bottle babies we bought in a package deal from a local producer selling the majority of her stock. Since her original animals were purchased from UMES, it was nice that we got a chance to buy some of them back.

Last year, I kept the does and kids in the barn until weaning. This year, I needed the barn space, so I had to put them out on pasture when the kids were a few weeks of age. The mild winter resulted in some maintained worm loads that could have slowed growth a bit, though they all look good. We weighed the kids at 50 days old and they were around 30 lbs., having gained around 0.39 lb/day. The heaviest weighed a little over 37 lbs. This is a little less than last year.



Many of the quality 2006 kids from UMES will be auctioned at the Lower Shore Goat and Sheep Producers' Association production sale April 29, 2006 at the Princess Anne Fairgrounds/Civic Center except a few replacements, some of which will also be shown at the Somerset County Fair Open Livestock Show July 29 (come out and see them) and possibly at the Washington County Open Livestock Show July 23. If you have any questions or comments, please contact Dr. Niki Whitley at [nwhitley@umes.edu](mailto:nwhitley@umes.edu) or 410-651-6194.

### Lambing

Well, the 2006 lambing season is over for

UMES. The sires used again this year were Suffolk, White Dorper, Texel or Katahdin in single-sire groups with 3 different sires per breed. We lambled for 1 month and the last ewe lambled the day before I left for Spring Break (to visit my farm in GA), which made the farm workers who stayed behind happy.

If you remember, last year I mentioned that we had a few problems with C-sections and ketosis and having to pull lambs. This year, with 110 ewes, we had 3-4 cases of ketosis and had to pull a few lambs, but the bigger problem was bottle babies. We seemed to have more this year than ever before. It just seemed that we were having triplets all over the place. We didn't really try to graft any this year, so that probably made it worse.

We had another set of quads this year and 5 singles. The rest were twins or triplets. The average born live this year was 2.58, compared to 2.25 born live last year. Not all the ewes exposed lambled though (we did use 6 ram lambs, so I probably should not have blamed it all on the ewes, but those that didn't lamb are gone). The total born was 250 with 10 stillbirths/deaths just after birth, so we have 240 live.

The average birth weight was 8.7 pounds per lamb (that's almost one pound less than last year). I fed less this year because we had to pull so many last year and it worked – we pulled way less this year (though the undergraduate working on the farm with us, Shannon Uzelac, will say we still had to pull too many). No one sire breed needed lambs pulled more than the others though I will say that I only remember us pulling 1 set of Katahdins. The average age of the ewes is 4 years with no first timers lambing this year and only 3 ewes older than 5 (two 6 year olds and one 8 year old) and only 5 ewes younger than 3 (they are 2 year olds).

Well, that's the update on lambing at UMES. I hope your lambing season is going (or has gone) smoothly.

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## **Coccidiosis: A Common Cause of Diarrhea**

**W**hat is it?  
Coccidiosis is a parasitic disease that affects cattle, sheep, goats, swine, and

poultry. The disease is caused by microscopic protozoan organisms known as coccidia that inhabit the cells of the intestinal lining.

Each class of livestock has a species-specific coccidia; there is no cross-infection between species. In ruminants, coccidia are of the genus *Eimeria*. Not all coccidia species are pathogenic.

Coccidia are everywhere in the environment. It is nearly impossible to find a sheep or goat without coccidia. They are a normal inhabitant of the gut. Most sheep and goats tolerate a low level of coccidia with no adverse effects. However, a high level of coccidia can result in clinical disease.

### **How do they get it?**

Lambs and kids are most susceptible to coccidiosis at approximately 1 to 4 months age, though younger animals may become infected. Stress plays an important role in the development of coccidiosis. Clinical signs of coccidiosis are most commonly observed shortly following stress such as weather changes, weaning, overcrowding, long truck rides, and unsanitary conditions.

Signs of clinical coccidiosis develop 17 days after infection with pathogenic levels of coccidia oocysts. Pneumonia outbreaks sometimes occur at the same time or following an outbreak of coccidiosis.

The disease spreads from one animal to another by contact with infected feces. Fecal contamination of hay, grain, bedding, pasture, teats, water troughs, creep feeders, etc. are all sources of infection. Initial transmission of coccidiosis to the lamb and kid occurs via the ewe and doe. Lambs and kids, once infected, then contaminate each other. Animals which survive a coccidia outbreak usually develop a good immunity to clinical disease. Clinical coccidiosis can occasionally occur in adult animals, usually in response to stresses.

Clinical coccidiosis occurs more often in intensive management systems than in extensive ones because of the concentrating effects on both host and parasite. Feed lot conditions provide ideal circumstances for an outbreak of coccidiosis.

### **Diagnosis**

The primary sign of animals suffering from coccidiosis is diarrhea. The diarrhea may be

mild to severe, depending upon the level of infection. The diarrhea is usually not bloody, but it can contain blood or mucous and be very watery. Anorexia (off feed), dehydration, weakness, rough hair coat, and death may all occur as a result of coccidiosis.

Scouring usually occurs 17 days after infection; however, coccidia oocysts may not be evident in the fecal sample for another 5 days. Fecal flotation may

or may not be a useful diagnostic tool, because while the presence of coccidia oocysts in the manure provides a link to coccidiosis, the absence of coccidia oocysts in a manure sample doesn't mean coccidia are absent.

Sub-clinical coccidiosis (no symptoms) probably accounts for a significant portion of production loss.

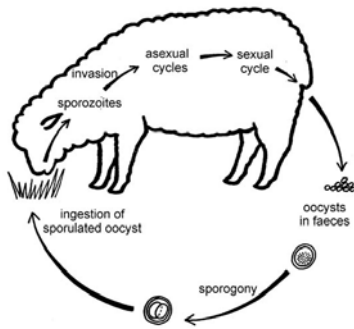
## Treatment

The coccidia organism does not respond to any of the standard deworming products. Medications used to treat clinical coccidiosis differ from medications used for prevention.

Sick animals should be treated as soon as possible and isolated from other animals. Unweaned and younger lambs and kids should be treated individually. Older animals may be group treated with a water medication. Treatment usually involves medication with either sulfonamide preparations or oral preparations of Amprolium. Treatment is usually for five days.

Many sulfonamide medications can be used to treat coccidiosis. Most preparations are sold in packets or as gallons of liquid that can be added to drinking water. Producers should consult their veterinarians for products and doses appropriate for their given management schemes. Amprolium is a thiamine antagonist. Though rare, polioencephalomalacia (caused by a thiamine deficiency to the brain) can be induced as a side effect of amprolium treatment.

Preventative medications such as monensin (trade name Rumensin®), lasalocid (trade name Bovatec®), and decoquinate (trade



name Deccox®) are collectively referred to as coccidiostats, meaning they slow down the shedding of coccidia into the environment. They should be used for prevention of coccidiosis. They are only effective at preventing disease if they are added to the feed before the lambs/kids become exposed. Some of these medications have a lag time (~21 days) between when you start feeding them and when the oocysts stop being passed in the manure. Therefore, pregnant ewes and does should be started on coccidiostats at least 21 days prior to entering the lambing/kidding area.

Bovatec® and Deccox® are FDA-approved for use in sheep. Rumensin® and Deccox® are FDA-approved for use in goats. However, rumensin is extremely toxic to horses! Small amounts can be fatal. Bovatec and Deccox are less of a problem, but should not be fed to any equine species, including guardian donkeys. According to reports from Iowa State University Diagnostic Lab, most dogs, except beagles, are quite susceptible to lasalocid toxicosis.

Coccidiostats should only be fed during times of expected risk. Year-round use of coccidiostats increases the potential for resistance.

Reference: Coccidiosis in Lambs by J.S. Rook, DVM, Michigan State University.

## Just for Youth

### 4-H/FFA Meat Goat Show

The 4-H/FFA Meat Goat Breeding Show at the Maryland State Fair has been split into two shows: commercial and registered. The commercial show will be for unregistered goats of any breed or breed cross. The registered show will open to fullblood and percentage goats of any recognized meat goat breed, e.g. Boer, Kiko, Tennessee Fainting Goat, and Pygmy. In addition, the buck kid class has been split into junior and senior age divisions.

For information about the meat goat show, contact Susan Schoenian at [sschoen@umd.edu](mailto:sschoen@umd.edu) or Willie Lantz at [wlantz@umd.edu](mailto:wlantz@umd.edu).

[www.bcpl.net/~mdstfair/](http://www.bcpl.net/~mdstfair/)

## Sheep and Wool Skillathon

The registration deadline for the Sheep and Wool Skillathon at the Maryland Sheep & Wool Festival is April 21. Send names and ages of participants to Susan Schoenian.

The skillathon is open to individual and teams of youth between the ages of 8 and 18. There will be junior (8-13) and senior (14-18) age divisions.

The skillathon will be held Sunday, May 7 at the Howard County Fairgrounds.

[www.sheepandwool.org/events/skillathon.htm](http://www.sheepandwool.org/events/skillathon.htm)

### Featured Breed

#### St. Croix = Parasite Resistance

St. Croix sheep are the most parasite (worm) resistant breed of sheep in the United States. They are unique to North America. They originated in the U.S. and British Virgin Islands in the Caribbean, where they are called the Virgin Island White. They descend from hair sheep from West Africa. Their exact origins are unknown, but there is speculation that they may be a cross between the Wiltshire Horn and the native Criollo.

St. Croix sheep are usually white. A separate breed association has established for colored St. Croix. Both sexes are polled. In the Caribbean, they are a small breed. Ewes and rams average 77 and 99 lbs., respectively. In the U.S., the breed is larger. Ewes average 119 lbs.; rams, 163 lbs.

In 1975, twenty-five Virgin Island sheep were imported into the U.S. by Utah State University. They form the basis for the breed in the U.S. Previously, Michael Piel had imported the breed into Maine to develop the Katahdin breed. More recently, the St. Croix was used in the development of the Royal White® breed.

St. Croix are classified as a rare breed by the American Livestock Breeds Conservancy. However, their popularity is increasing, along with other hair sheep, due to their lack of need for shearing and docking and their natural resistance to worms.



St. Croix sheep at VA State University

#### Reproductive Excellence

St. Croix sheep are known for their exceptional reproductive performance. They are highly fertile, reach puberty at an early age, will breed throughout the year, and are prolific. They are known for having docile, calm dispositions.

#### Parasite Resistance

St. Croix sheep can withstand heat and humidity better than British sheep breeds. What is most noteworthy about St. Croix sheep is their resistance to internal parasites. Numerous studies have documented their exceptional parasite resistance. Researchers at Virginia Tech are studying the genome of St. Croix sheep to learn what makes them so resistant to worms.

[www.stcroixsheep.org](http://www.stcroixsheep.org)

[www.stcroixhairsheepbreeders.org](http://www.stcroixhairsheepbreeders.org)

[www.stthomashairsheepbreeders.org](http://www.stthomashairsheepbreeders.org)

### Animal Health Requirements for Showing in Maryland

In order to exhibit/show livestock in Maryland, you must have an approved copy of a Certificate of Veterinary Inspection (CVI). Each animal must be identified on the certificate. The CVI for Maryland exhibitors must be filled out, completed, and signed by an accredited veterinarian within 45 days of the first exhibition. Faxed certificates will not be accepted. Incomplete forms will be returned.

Within 45 days of your first show, you should have your animals inspected by an

accredited veterinarian. After completing the CVI, you should mail or hand carry it (along with a copy) to the Animal Health Lab in Annapolis, the Frederick Lab, or the lab in Oakland.

All animals will be inspected for general health upon arrival to the show. Those showing clinical signs of any contagious or infectious disease will be removed from the show or fair. The State Veterinarian reserves the right to the final determination. In such cases the health certificate may be modified, suspended, or revoked.

Approval of all entries for the first showing in Maryland will extend in 60-day increments through the show season, providing that the status of the herd/flock or animal(s) does not change. The CVI must be signed and dated on the reverse side by a MDA animal health official at each event to extend the 60-day effective date.

The 2006 Fair-Show Requirements and CVI can be downloaded from the MDA web site at [www.mda.state.md.us/animal\\_health/](http://www.mda.state.md.us/animal_health/) (click on fair-show requirements).

### **Scrapie requirements**

All sheep and goats, regardless of age or sex, must be from flocks registered in the scrapie control program and so identified by a) USDA approved tags, b) a legible registration tattoo, or c) an approved premise tattoo, before going to a Maryland fair or show.

### **TB and Brucellosis**

Goats originating in Maryland from herds not under quarantine or restriction, are not required to be tested for Brucellosis or Tuberculosis for shows in Maryland.

### **Out-of-state exhibitors**

All out-of-state entries must be accompanied by a valid interstate Certificate of Veterinary Inspection. An approved copy of the certificate must be forwarded by the State of Origin to the Animal Health Section. The interstate (CVI) is only valid for 30 days from the date of issue.

## **Featured Web Sites**

### **Shepherd's Notebook Blog**

**B**log is short for weblog. A weblog is a journal (or newsletter) that is frequently updated and intended for general public consumption. *Shepherd's Notebook* is a blog, recently created by Susan Schoenian, to provide up-to-date information to sheep and goat producers. The url is <http://mdsheepgoat.blogspot.com>.

Anyone can create a blog. They are a free, easy way to create a web presence. Visit [www.blogspot.com](http://www.blogspot.com) to create your own blog.

**<http://mdsheepgoat.blogspot.com>**

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### **"Aussie" Worm Boss**

**W**ormBoss represents the Australian national knowledge on sheep worms and their management. WormBoss was developed by the Australian Sheep Industry Cooperative Research Centre (CRC) and Australian Wool Innovation. You can practice doing worm egg counts using the site's virtual worm counting graphic and/or subscribe to WormBoss so that you'll be notified when there are updates to the web site.

**[www.wormboss.com.au](http://www.wormboss.com.au)**

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### **RVC/FAO Guide to Veterinary Diagnostic Parasitology**

**T**he RVC/FAO Guide to Veterinary Diagnostic Parasitology provides step-by-step instruction on doing fecal examinations for ruminant parasites – from collection of fecal samples to interpretation of results.

FAO is the Food and Agricultural Organization of the United Nations. In addition to the parasitology guide, it provides numerous other resources. Use the site's search engine to find other information pertaining to small ruminants.

**[www.fao.org/ag/againfo/resources/documents/Parasitology/Index/Index.htm](http://www.fao.org/ag/againfo/resources/documents/Parasitology/Index/Index.htm)**

## Calendar of Events

### April 20 and 27

Sheep and Goat Enterprise Development 101  
Frederick County Extension Office, Frederick, MD  
Info: Terry Poole at (301) 694-1594 x13577 or  
tepoole@umd.edu

### April 29

UMES Goat and Sheep Auction  
University of Maryland Eastern Shore  
Princess Anne, MD, Info: Dr. Niki Whitley at (410)  
651-6194 or nwhitley@umes.edu.

### April 29

Meat Goat Nutrition Workshop  
Animal Evaluation Center, Rock Springs, PA (near  
State College). Info: Gene Schurman at (724) 465-  
3880 or exs10@psu.edu

### May 6-7

Maryland Sheep & Wool Festival  
Howard County Fairgrounds, West Friendship, MD  
Info: www.sheepandwool.org

### June 17

4<sup>th</sup> Annual Production Sale  
Scott County Hair Sheep Association  
The Home Place, Gate City, VA  
Info: Pete Odle at (276) 452-2772 or jodle@vt.edu

### June 21

Maryland-Delaware Wool Pool  
Maryland State Fairgrounds, Timonium, Maryland  
Info: Rich Barczewski at (302) 857-6410 or  
rbarczew@desu.edu



The *Maryland Sheep & Goat Producer* is published bi-monthly by the University of Maryland Cooperative Extension. It is written and edited by Susan Schoenian, Area Agent for Sheep and Goats at the Western Maryland Research & Education Center. To receive the newsletter, contact the Western Maryland Research & Education Center at 18330 Keedysville Road, Keedysville, MD 21756, tel. (301) 432-2767 ext. 343 or 301, fax (301) 432-4089; e-mail: sschoen@umd.edu or cmason@umd.edu. The cost of receiving the newsletter by mail is \$10 per year, payable to the University of Maryland. The newsletter can be accessed for free from the Internet at <http://www.sheepandgoat.com/news/>. Internet users can ask to be added to a list to receive an e-mail message when a new newsletter has been posted to the web. Comments and suggestions regarding the newsletter are always welcome. Articles can be reprinted with permission.