



Raising sheep the EASY way!

Barbados Blackbelly Sheep Association International

Blackbelly Banner

Is Your Flock Getting GIP'd?

A Primer on the 3 R's: Resistance, Resilience, and Reinfection

By Joanne Vaughn,
Rochester, NY

ARE GASTRO-INTESTINAL PARASITES (GIPs) ROBBING YOUR FLOCK OF VITALITY? If so, you are not alone. The reproductive cycles of these organisms are particularly devastating to vulnerable pastured ewes about the time of lambing and lactation. Keeping your flock on dry lot breaks the life cycle, and eggs are not able to develop into infective larvae and reinfect the animals, thus preventing an explosive growth of GIPs.

Every Ewe Has Worms

It's not whether or not your sheep have these organisms since all sheep do, instructs Virginia Tech Parasitologist Dr. Ann Zajac. The important question is HOW MUCH of a worm load are they carrying and whether the animals are showing clinical signs of anemia. There are many types of parasitic worms that may be affecting your flock, but in the U.S., the most damaging worm is the *Haemonchus contortus*. The chief symptom of this GIP is a loss of red blood cells

caused by the worms sucking the blood from your animals. A low blood cell count is called anemia, which can lead to lethargy, opportunistic infections, and death. Most importantly, ewes with heavy worm-load can be infecting the rest of your flock and

severely impacting the growth and survival of your lambs.

How to Test

Luckily, it is possible to assess the level of damage these parasites are doing to your flock by examining the color of the eye tissues. The level of anemia is correlated to the color of the soft tissues surrounding the eye. The FAMACHA test was developed to help objectify the amount of anemia and to set guidelines of when to treat. Note

that the FAMACHA test



FAMACHA test for anemia available from <http://web.uri.edu/sheepngoat/famacha/>

is equally valuable to assess anemia in lambs. In fact, anemia in lambs is a useful tool to use in making decisions about breeding stock. It is easy to learn how to perform this test through on-line instruction. Instruction videos and test cards are available from <http://web.uri.edu/sheepngoat/famacha/>.

20% of Your Ewes Have 80% of the Worms

As you do this testing you will likely find that some of your ewes are

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Facebook, a Lost Dog, and a New Blackbelly Owner

By Jeffrey Burke, Rochelle, VA

You might ask: What do Facebook and a lost dog have to do with a budding relationship with a new local farm-to-table restaurant that, in the near future, will be featuring blackbelly sheep on the menu? And, how might this be of interest to you?

One beginning to this story occurred about a year ago when our farmer neighbor—who supplies us with hay, advice, and various other helps—told me about a newcomer to the neighborhood who was a chef by trade and who planned to open a restaurant that featured only local produce.

The other beginning to this story happened after eating last year's Thanksgiving dinner. Some of the family returned from a walk to the end of our dead-end gravel road with the most beautiful border collie puppy trailing behind. It looked to be about 5 months old. No one had ever seen it before, and we assumed that at some point it would go home. The pup took a keen interest in our two English Shepherds and ended up staying the night on a rug on our

front porch. It stayed around most of the following day and then walked back down the road from whence it came. By then, Kristi had posted some pictures of the pup on Facebook and in no time a neighbor let her know that there was another post asking for help locating a certain missing border collie puppy named Jacksie. Kristi made contact with the owners via Facebook, but by this time the pup was gone.

A couple of Facebook posts later I realized that Jacksie's owner was the chef that my farmer friend had told me about, and that he had already opened up his restaurant. Thankfully, Jacksie was recovered a couple of days later. Apparently, Kristi's Facebook post and subsequent conversation with the chef's wife had pointed them in the right direction to look for the pup.

The following week, we dined at Jack's Shop Kitchen. We were blown away by the quality of the food, the service, and the ambience. Along the way, I mentioned to our server that we had kept the chef's dog overnight when it had been lost,



Jacksie on Thanksgiving waiting to find her way home

and we were glad that he had gotten it back. At the end of our meal, out came a red-bearded fellow in white with a couple of complementary desserts. It was Chef Eric Bein and he wanted to meet us and thank us personally for looking out for Jacksie during her adventure. We exchanged a few words, and at some point I said, "you really should think about putting some of our blackbelly sheep on the menu."

"I think I might!" said Eric. Fast forward to the week after Christmas. Eric, his wife, kids, and extended family up from Sarasota for the holidays all descended upon our place to check out the sheep. While we stood between the ewes on one side of the lane and the rams on the other, I gave them the typical speech about the benefits of hair sheep over wool sheep, and then focused upon the added special features of the Barbados Blackbelly. What I didn't know at the time was that Eric has a propensity for the noncommercial breeds. He was already part owner of his first Belted Galloway steer, and had purchased some Mulefoot/Berkshire pigs. A defining moment of the visit was when Eric asked, "So, you researched all the breeds and this was the one you thought was the best?" With an affirmative answer, our dealing was underway.

Within a couple of weeks, Eric was the proud owner of his starter flock of Barbados Blackbelly sheep. He got four of our bred ewes, as well



Kristi and Jeffrey Burke with Eric Bein at Jack's Shop Kitchen

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Improving Pastures by Frostseeding

By Susan Schoenian, Wild & Woolly, Winter 2017 , <http://www.sheepandgoat.com/winter2017>

Frost seeding is a popular option to improve forage yield and quality of pasture and hay land. The principle of frost seeding is to broadcast forage seed in the early spring when the ground freezes at night and thaws during the day usually in late winter typically 40 to 50 days before grass growth begins in the spring.

Frost seeding works best on clay and loam soils that experience soil movement with the freezing and thawing action that takes place that time of year. The main advantage to frost seeding is the ability to establish desirable species into an undisturbed sod at a low per acre cost. Producers have to simply buy the seed, broadcast the seed and watch it grow. There is no spraying, tillage, stone picking, nor loss of grazing for a summer that comes with re-seeding a new pasture. And in many cases the end result can be almost as good as a new seeding.

The common practice is to add clovers, birdsfoot trefoils, and some grasses such as annual ryegrass to a pasture when the legume percentage in the pasture is less than 40 percent. The existing grass



pasture is not tilled or sprayed, just the clover seed is broadcast over top with the hope that the clover seedlings will compete and grow with the grass in the summer. Even thin stands of grass can be very competitive in the spring of the year. These existing grasses can out-compete the new seedlings for moisture, especially during a dry period in the spring, and the frost seeding may fail.

Frost seeding works best with legumes and grasses that germinate fast and at cool temperatures. Recommended species and seeding rates are shown in Table 1. Red and white clovers are the most effective for establishment. Birdsfoot trefoil is less successful due to slow establishment. Alfalfa does not frost seed well because its germination

is variable at cool temperatures. There are several benefits to adding legumes to pastures including higher quality forage as well as nitrogen to support grass growth.

Although legumes

are the most successful for this system, some grasses can also be successfully frost seeded. Of the grasses, annual ryegrass and orchardgrass frost seed with the greatest success; brome grass has intermediate success; reed canary and timothy have the least success. Typically, annual ryegrasses will go to seed in the summer; therefore, on these farms, ryegrasses should be seeded with the intent of meeting single season forage needs. Orchardgrass will contribute to forage yields in the seeding year while brome grass will need a full season before plants become productive.

Since grass seed is light, it will not throw as far as heavier legume seeds when broadcast. If seeded as a mixture, this difference in seed weight will result in alternating strips of grass and legume plants. Therefore, seeding the species separately will result in a more even distribution of grasses and legumes. To spread the establishment cost risk of frost seeding, it is generally better to seed at lower rates and repeat in successive years than to seed at higher rates in any one year. Many farmers frost seed 25% of their acreage each year so that they are spreading their risk over different years.

In the spring, excessive growth and competition should be controlled. Frost seeded pastures should be grazed or clipped in the spring at

Species	Seeding rate (lbs/acre)
Red Clover	2 to 4
White Clover	2 to 4
Birdsfoot Trefoil	4
Annual ryegrass	5 to 6
Orchardgrass	2 to 4
Smooth brome grass	8 to 10

Table 1. Recommended Seeding Rates for Frost Seeding Species
Note: Timothy and Canarygrass are not recommended.

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BBSAI's New Mobile-Friendly Site

Times are changing and the BBSAI is happily changing with them. In particular, we want to stay abreast with the shift in Web access from primarily desktop usage to mobile usage (smart phones and tablets). Over 25% of global Web searches are conducted on a mobile device by over a billion users worldwide. We want to make sure that mobile users have a good experience on BBSAI's Web site. No pinching, zooming, or squinting.

Google now prioritizes mobile-friendly Web sites over those that are not mobile-friendly. Web sites that are optimized for mobile rank better than those that don't. BBSAI wants to make sure that it always displays right at the top in searches for Barbados Blackbelly and American Blackbelly sheep so that our Web site can educate your potential buyers and then point them to YOU via the Breeder Directory.

A mobile-friendly Web site also lends credibility to the BBSAI by giving people who visit the site on a mobile device a better experience. That will encourage them to see the BBSAI as a credible resource for information and will encourage them to explore the site and find YOU the breeder to buy sheep from.

So, we redesigned our Web site to be mobile friendly. Working with our fantastic database developer and Web site host Doug Meyer of Mountain Niche Web Services (mtn-niche.com) we hired Laura Pierson to work her magic on our site. She not only made it responsive (mobile friendly), she added some cool features, like putting the most recent classified ads on our home page and adding great sheep photos. Have a look.

<http://www.blackbellysheep.org>

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The International Registry for Barbados Blackbelly and American Blackbelly Sheep

BREED INFORMATION

LATEST CLASSIFIEDS

American Blackbelly
22 ABB Available Our property going on the market for sale Looking to find home for 22 ABB, all registered. ... [Read more](#)

American Blackbelly Ram Lambs
6 Registered American Blackbelly Ram Lambs - 3 to 4 months old Can deliver charge per mile / distance. ... [Read more](#)

Wanted. Looking for Barbados Blackbelly sheep
Looking for 2 young registered ewes as well as a young registered ram. Call text or email ... [Read more](#)

Facebook+Dog+Restaurant

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as a couple of rams. As part of the deal, he took two other rams home, butchered them himself, and we split the meat. I will be more than happy to turn him loose with more of our freezer sheep in the future after what he did with these first ones. He made the most delicious Merguez (sausage). While munching on that, I felt like I was back in the Middle East.

There are several wonderful things about this arrangement: Eric lives about 5 minutes away from us. It's fantastic to have another blackbelly owner so close for lots of obvious reasons. In addition, because of the notoriety that Jack's Shop Kitchen is achieving, it is likely that the Barbados Blackbelly will get a great deal more exposure in our area. In fact, it has already happened. His Blackbelly Merguez will be the featured dish in a soon-to-be-published article in *Edible Blue Ridge* magazine. And we have personally benefitted, as well. The best part has been making a new friend of the caliber of Eric Bein. He's just a good guy who happens to be an innovative chef with a love for farm and quality food.

You will never replicate our little story, but you can replicate the results. It's just a matter of talking about your sheep. We know that the Barbados Blackbelly is a wonderful thing. If you talk about them enough, you will meet someone who has a need for them. Eric had never heard of them, but he saw that they fit his need. I can't help but think that there are many people out there just like him. You just need to talk to them! ✨

How Ear Tags Can Help You

Reprinted from Premier 1, <https://premier-1supplies.com/newsletters/01-17-2017-sheep.html>

Single-sided design

Ear tags provide a visual aid for unique identification (such as a flock or premise number) and can help to identify sex, year of birth, sire, dam and much more.

If you use tags in your breeding flock, it's wise to install a tag in both ears when they are baby lambs. Why? Because tag wounds in lambs heal quickly with less infection risk than tag wounds in adult animals—and thus provides a pre-existing, clean, firm hole when a larger tag needs to be installed.

Here are some other helpful tips for how we use ear tags at Premier.

To Indicate Sex

Benefits: Allows rapid sorting by sex while sheep are moving down a chute or in a holding pen.

No need to spend valuable time to "check the plumbing" of each animal. Keeps your hands clean!

- Males: Insert the primary tag in left ear.
- Females: Insert the primary tag in right ear.

To Indicate Year of Birth

Benefits: No need to catch them to check teeth. A tag can tell you the age from 25 ft away. Faster decisions when sorting for culling or breeding. Two ways to do this (we do both):

- Use a different color for each year.
- Begin tag number series with the year of birth. Example—tag 17275 indicates lamb is the 275th lamb tagged in 2017.

To Indicate Sire (and Dam)

Benefit: No need to check records. Three ways to do this:

- Use a different color second tag for each sire (blue tags = Sire XYZ; purple tags = Sire ABC).
- Have sire name printed on the tag of its progeny.
- Handwrite the ewe's tag number with a marking pen on the lamb's tag. If space is limited, write it on the tag's inner surface.

Note: Since tags can be lost, we strongly advise using 2 sire/dam tags (one in each ear).

To Indicate Problems

Benefit: Allows rapid, positive culling of animals with foot problems, dystocia, mastitis, prolapse, etc. Two ways to do this:

- Put a tag that says "cull" (or a black tag) into problem animals.
- Use an ear notcher to mark the animal for culling.

To Indicate Single, Twin, or Triplet

Benefit: Speeds up sorting for breeding and sale purposes. Reduces need to consult records. To do this, use a different color for each lamb type. Repeat these colors every year. Premier's code is

blue = single
green = twin
orange = triplet

Frost Seeding

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regular intervals to allow sunlight to enter the canopy. Do not allow animals to graze plants low enough the first or second rotations that they ruin the new seedlings before adequate roots are developed.

Summary—Frost seeding will not increase the productivity or quality of a pasture if soil nutrients and pH are not in acceptable ranges for the species you are trying to produce. Most often, pastures are a product of management practices. Many times a change in grazing practices (allowing rest periods) or addition of soil nutrients will correct declining pasture production. If you are thinking of making a frost seeding and do not know what your nutrient levels are, a soil test can be a valuable tool. It can tell you if your pastures need more seed or just more "feed". 🌱



GIP'd Sheep

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severely affected, while other ewes that graze in the same paddocks show little or no anemia. A number of studies have shown that about 20% of the ewes will carry 80% of the GIPs. In the past, concern over infection levels led owners of pastured stock to treat the whole flock with medications such as Safeguard, Valbazen, or Ivermectin. However, this practice quickly led to a flock's developing drug-resistant worms. It is now recommended that owners of pastured stock treat only those ewes whose health is obviously compromised by anemia. By monitoring the FAMACHA scores of your ewes, you can select those that show high levels of anemia and treat just them. This will reduce the rate that these ewes are infecting and reinfesting the rest of the flock. By leaving some of the ewes untreated, some of the GIPs in your flock and pastures will remain vulnerable to the drugs, slowing the rate of drug-resistant worms.

Resistance, Resilience, and Reinfection

The 80% of sheep that do not have high worm counts are likely to be immunologically resistant to infection. "Resistant" sheep manage to suppress the infection through their immune system. Though exposed to infected pasture, these ewes produce fecal pellets with few worm eggs. How the immune system fights the GIPs is very complex. The complexity

of the response is why there have been no vaccines developed to protect the sheep. Nonetheless, the immunological response to the infection robs physiological resources that your ewe cannot provide for her lamb. Blackbelly sheep have an immune system that fights the infection by GIPs. This does not mean that all Blackbelly sheep in a flock will be "resistant"; there will be individual variation. Immune resistance is a polygenetic trait of the Blackbelly breeds: many genes are involved. However, expression of the trait is still highly dependent on the overall health of the individual and its nutritional and breeding state. During pregnancy, the ewe's immune

Resistance—an animal's ability to affect parasite establishment, development, fecundity, etc.

Resilience—an animal's ability to maintain performance despite being infected with parasites

system is diminished under the influence of hormones. It cannot be stressed enough that proper nutrition (especially protein and vitamin E) during the gestational and lactation periods is essential for the ewe to rally her immune response against GIPs infection until her immune system recovers from pregnancy.

Of the 20% of the ewes with high levels of GIPs in their fecal samples, some may not show the expected symptoms of anemia, loss of body condition, scours, or poor coat condition. These ewes are considered "resilient." Resilient sheep are heavily infected and yet do not succumb or show symptoms. Having these ewes in your flock allows high levels of "reinfection." Under ideal weather conditions, the egg develops into infective larvae in 3–6 days. This sets up an explosive exposure to infectious larvae if the sheep are still grazing on that same pasture.

Other sheep have high FECs and show symptoms: they are neither resilient nor resistant. These ewes are anemic season after season, have low condition scores, and are lethargic. These ewes will need treatment to survive. Such ewes should be considered for culling because they are reservoirs of infection for the rest of your flock.

Purchasing and Selling Your GIPs

What is easily overlooked is that every time you sell a sheep, the "susceptible" GIPs go along for the ride. Conversely, bringing new stock onto your property means that you are accepting the hitchhiking GIPs of the new stock that were modified by the husbandry practices of the seller. Though you may be careful to manage your stock to delay their loss of susceptibility to dewormers, the new stock you just bought may be populating your pastures with "non-susceptible" GIPs. According to Dr. Ann Zajac, "non-susceptible" GIPs can revert to "susceptible" GIPs if not exposed to the dewormer for a length of time. However, the non-susceptible trait quickly reappears when exposed to dewormers again.

In Conclusion

It is likely that parasite resistance is one of the reasons you choose to keep Blackbelly sheep. The small number of registered breed stock and the isolated flocks of these animals promotes genetic drift. Without monitoring and culling for genetic resistance to parasites, the continued breeding of these sheep while using dewormers may result in flocks that will lose this most valuable trait of parasite resistance.



Ask the BBSAI

Q: Do most sheep breeders keep the rams separated or do some run rams with ewes year round? My ram runs with my ewes year round. The only problems I have had with that is you don't know when the lambs are coming and they come at different times during the year. Also, my ewes had their lambs about 2 days apart from each other. Is that close timing of birthing because the ram is put with the ewes on a controlled rotation?

A: It usually is best to separate rams from the ewe flock. Rams can often harm newborn lambs; and because blackbelly ewes are quick to breed back, if the ram remains with them, they will conceive and begin supporting lambs in utero while still lactating, which puts a great deal of stress on their ability to regain condition after lambing. Some breeders who have only one ram will allow him to remain with the ewes because it would be too stressful for him to remain by himself. But, as you pointed out, doing so eliminates your ability to know for certain when lambing will occur.

Ewes will often synchronize their heat cycles, resulting in tight lambing events if the ram can get them all covered. Breeders value this inasmuch as it shortens the time that they have to be on high alert during lambing. I don't know if it has anything to do with the ram being separated from the ewes except during breeding, but it makes some biological sense that it does. If a ewe flock is constantly exposed to the pheromones of a rutting ram, they might be less likely to cycle together.

Q: What is the best way to tame blackbelly sheep?

A: Blackbelly sheep can rarely be "tamed" per se, however they can be calmed a bit and they can be bribed. Start by holding

a bucket with a little bit of grain or sweet feed. Sit near the flock quietly, every day, for about 15 minutes without moving. Eventually they will get curious about what is in the bucket and will approach you. If you always move slowly and talk quietly, eventually you can get them to eat out of your hand.

Treats such as animal crackers (purchased in bulk they are very inexpensive) can then be used. If you give each sheep a cracker when you go into their area, they will soon mob you. You may need to toss the crackers on the ground in the beginning, but the sheep will soon realize that you hold them in your hand and they'll need to take them from your hand if they want any.

The first time you have a female bottle baby, she will be the "glue" that can often help develop trust in the rest of the sheep. She will be a good addition to your flock, so plan to keep her.

There will always be some "spooky" sheep that simply will never trust you. Take joy in the ones that will approach you and don't worry about the others. If you don't need their genetics, cull them; they will pass the spookiness on to their daughters.

Don't be lured into making friends with rams. They are usually much more approachable, but remember: never trust a ram, never turn your back on him, and NEVER scratch him on his head. Rams absolutely MUST fear you. You don't have to be mean to them to create fear; they just need to know that you are the alpha sheep in the flock and that they should never test (or trust) you.

Q: A few days ago, I noticed that one of my young ewes was losing her winter coat. Today, I noticed she's going bald—I mean, completely hairless along the torso, with pink skin showing in some areas. She appears in good health otherwise. I don't think it's mange, and I checked to rule out external parasites such as mites.

A: This hair loss is common in Blackbelly sheep in the spring and usually is nothing to worry about. In wool sheep, there is a condition known as "wool break" or "wool slip," which results from a nutritional deficiency or some kind of stress (such as lambing). It is also caused by shearing too early in the spring, causing the sheep to suffer cold stress. I don't know if this is in any way related to the hair loss that our blackbelly sheep sometimes experience, but it could be. You might give this girl an extra ration of grain. 🌱



Photos courtesy of Rita Guill, Elma, WA

The Barbados Blackbelly Sheep Association International is a non-profit organization registered in the State of Missouri



Raising sheep the EASY way!

The BBSAI Newsletter is a benefit of membership in the BBSAI and is published quarterly. The BBSAI Newsletter welcomes articles, photographs, and business cards that relate to American Blackbelly and Barbados Blackbelly sheep. Publication of articles or advertisements does not necessarily constitute an endorsement by BBSAI. No part of the BBSAI Newsletter (including photographs) can be reprinted, put on Web sites, or used in any manner without written permission of the BBSAI.

Issue deadlines are
January Issue – December 15
July Issue – June 15
April Issue – March 15
October Issue – September 15

Please send changes of address to
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or email
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<http://www.blackbellysheep.org/association/newsletters/>

Newsletter Editor: Carol Elkins

Livestock Conservancy Returns Barbados Blackbelly to "Watched" Conservation Priority

This is excellent news! But why would we celebrate the demotion of Barbados Blackbelly sheep to a more imperilled category?



For many years, Barbados Blackbelly sheep were listed on the Conservation Priority List as "Watched," a designation given to livestock populations with fewer than 2,500 annual U.S. registrations and an estimated global population less than 10,000. Being on the Conservancy's Watched list brought a great deal of interest to Barbados Blackbelly sheep. Many people got involved with the breed because they wanted to be part of something important— helping a rare breed survive. This added attention created new markets for Barbados Blackbelly breeding stock and allowed the original BBSAI breeders to expand their foundation flocks. Thus the breed improved from 100 sheep in 2004 to over 2800 registered sheep in 2017. But we didn't know this in 2004.

In 2005, the Conservancy upgraded Barbados Blackbelly to "Recovering." This was an unfortunate decision based on inaccurate data regarding the sheep population in Barbados. BBSAI member Carol Elkins knew that BB sheep remained at critical levels not only in the U.S. but also in Barbados. She campaigned against this decision every year, meeting deaf ears on the part of the Conservancy. In 2017, Dr. Phil Sponenberg, a Livestock Conservancy board member and friend to the BBSAI and the Consortium for Barbados Blackbelly Sheep Breeders, gave the Conservancy more realistic registration numbers for the breed. This provided sufficient justification

for their returning the breed to a "Watched" status.

Now that the Barbados Blackbelly breed is more accurately represented by the Conservancy's priority list, we hope that once again, new breeders sympathetic to the plight of the breed and eager to "make a difference" by helping save this rare breed will look to BBSAI breeders to purchase starter flocks.

Even with over 2800 registered sheep, the Barbados Blackbelly breed is far from being "recovered." We have a very inbred population with most flocks related to the same two or three bloodlines that existed in the 2004 foundation flocks. We need a much larger population with considerably less interrelatedness between flocks and less inbreeding within each flock. And we need the country of Barbados to develop a breed registry that can acquire an accurate census of the purebred BB sheep population on the island.

To quote Joni Mitchell's song "Big Yellow Taxi," she reminds us that "you don't know what you've got till it's gone." We need to get a good count of what we have and then work harder to build the count higher. That's how we save a breed.

For more information on the Conservation Priority List, see <https://livestockconservancy.org/index.php/heritage/internal/conservation-priority-list>