

St. Croix  
Hair Sheep  
Breeders,  
Inc.



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

## News & Views

### PRESIDENT'S RAMBLE "RESOLUTION TIME!"



Happy new year in 2022! But I'll bet that most resolutions are old and worn – the same old same old. So are some comments we hear about St. Croix sheep. Same old same old. Here are some well-worn comments and opinions about those comments:

1. St. Croix sheep are not Katahdins – Take your pick of the reasons including size, growth, muscle, popularity... All I can answer is "Thank goodness!" St. Croix are a closed breed, a unique genepool <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0179021> and three of them are the reason that there are Katahdins. Katahdins

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### NATIONAL MICROGRANTS

#### **The Livestock Conservancy National Microgrants Program Funds a Handling System for Melwood Farm**

St. Croix Hair Sheep are included on The Livestock Conservancy's Conservation Priority List. This means that each year in August, breeders are eligible to apply for one of their grants. There are four grant programs for which breeders can apply: National Microgrants, Youth Microgrants, Premier 1 Microgrants, and Emergency Response Funds. Crystal Criswell of Melwood Farm in Ohio applied for and was awarded a \$2,000 grant in 2020 through the National Microgrants Program.

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### NEWS & VIEWS

*News & Views is the membership newsletter of the SCHSB, published three times per year.*

*If you are not a member and are interested in becoming one, please contact us using the information on the back cover.*

**HAPPY READING!**

## PRESIDENT'S RAMBLE...

(Continued from page 1)

are a revolving door breed with a breed up program and an open flock book. They are focused on being all things rather than being a pure breed. Do all that you want on FEC EBVs in Katahdins and you begin to get near the St. Croix influence of parasite resistance. I helped a friend years ago with a flock of commercial Katahdins. The more pressure that she put on the flock for easy care, higher function and disease resistance the more the flock looked like St. Croix sheep. Go figure.



Courtesy: Beth Hall

2. St. Croix sheep are not Dorpers - Right. Dorpers are quite the muscle maker and the holder of many worms. Live in either an arid place and/or only feed bought feed stuff with no access to forage and you'll "fall in the cesspool and come out smelling like a rose" with Dorper and Dorper crosses. Change to a forage based system and a humid climate and you'd better be up on deworming as long as the deworming agents are effective.

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*“The demand is high for our non-Katahdin and our non-Dorper sheep.”*

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3. The St. Croix sheep are hard to find – I agree. The demand is high for our non-Katahdin and our non-Dorper sheep. Why? Because they function so well. Some folks buy St. Croix and do not keep up their registration and transfer work. That is a problem that you and I can easily fix if you need a resolution; **keep your ID tags and paperwork current**. A few folks want to sell lambs for breeding stock which are only market quality. Learn before you buy and sort before you sell. This is merely common animal husbandry stuff before you apply the animal science principles.
4. “I got some sheep and they have not done so well” or “we had predator problems” – Plan and prepare before you bring livestock onto the farm. If you really want to make a go of it, learn all that you can about your region, soils, climate, environment and what is working for **SUCCESSFUL SHEEP PEOPLE CLOSEST TO YOU** (your environment). There have been a lot of distant poster-child type producers noted and celebrated over the years. I call them “gurus”. Most are miles away, they are many environments away from you and that does not really translate to a good fit for you. Many make quite an income on books, videos, speaking engagements and pasture tours. Unless you plan to do all of those activities to boost your income then you will not ever be like them. You'll need to hunker down and focus on farm economics, soil health, great forages and things of the farm and not things of self-promotion.

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## PRESIDENT'S RAMBLE...

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*“Thank your secretary, treasurer, directors, registrar, the annual meeting coordinator and others...”*

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So what are some new resolutions?

- Do something new! That was easy! A great example is Crystal Criswell. She has stepped up to be one of your newly elected SCHSB directors. She has been a great example of personal strength, self motivation and planned flock improvement. Ask her what she is doing and let her help you. Thank you to Crystal and the other newly elected directors for offering to serve and thank you to members who took time to vote.
- Be thankful for the assumed support of the breed. Thank your secretary, treasurer, directors, registrar, the annual meeting coordinator and others who silently support the breed and SCHSB day to day. Volunteers do their jobs from their hearts. Those who help us with the registration, website, email voting and newsletter production do so with a great work ethic. Become a part of the support.
- Add a new flock management tool in your repertoire of shepherd skills: try some DNA testing, get some weights from your sheep, have some fecal egg counts done or go to a seminar or a mentor and learn to do the new tasks. Maybe study up on genetics, do some disease tests within the flock or trial a new forage species. The options of “new” are not a short list. Regardless, schedule **NOW** and **plan to go the 2022 SCHSB annual meeting** and get involved with those you meet there.

The deal on resolutions is not to do something that is never heard of before. That is “invention”. What we need to do is to do something that is new to us. In the parallel of an old movie line starring the late Ronald Regan, “go out there and win this year for the St. Croix”.

## NATIONAL MICROGRANTS...

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When Crystal decided she wanted to raise sheep, she did her research. Raising heritage breed chickens, she was familiar with the Livestock Conservancy. Like other members of SCHSBI, she chose St. Croix because of their status in the Conservancy, parasite resistance, and good mothering instincts. Their smaller size and docile temperament makes them easier to handle as a woman shepherd, traits that have been helpful to her, especially while going through breast cancer treatment in 2020 and 2021.

Crystal started her flock in October 2018 with three registered bred ewes. Since then, she has grown her flock at Melwood Farm to twenty-two ewes and three rams. Crystal’s goal is to grow the flock to thirty-five ewes by the end of 2024. As the flock grows, so

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## NATIONAL MICROGRANTS...

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does the amount of labor. Unfortunately, Crystal isn't getting any younger, and cancer negatively impacted her strength and bone density. Handling the sheep couldn't continue in the chase, corner, and wrangle fashion.

Crystal chose to use the grant funds to install a handling system with a gathering pen, race, sorting gates, and a weighing scale next to the barn. She chose D-S Livestock Equipment's "System A" and a simple platform scale. This equipment makes it possi-

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*“Because handling is easier and faster, she can improve and simplify record keeping so that the best animals can be retained or sold for breeding...”*

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ble to handle and sort sheep safely and quickly with little or no assistance. Because working the sheep is faster, easier, and less frustrating, the sheep are worked more often. Because handling is easier and faster, she can improve and simplify record keeping so that the best animals can be retained or sold for breeding while the culls are identified early, sorted, and sold for meat. Growth rates, fecal counts, blood test results, mothering data, and hoof quality records gained through the use of this system help to ensure that only the best sheep are used and sold as breeding stock.

In May 2021, Melwood Farm hosted a hands-on workshop with the help of her veterinarian to teach new shepherds how to care for sheep. Seven participants attended and learned how to use the handling system, administer vaccines, obtain fecal and blood samples, trim feet, and score body condition and FAMACHA. Each participant was given brochures from St. Croix Hair Sheep Breeders, Inc., Livestock Conservancy, and WormX.com. One participant chose his ram lamb based on the data collected during the event and took him home that day.

The funds from The Livestock Conservancy have benefitted Melwood Farm and local sheep enthusiasts immensely, and could do the same for other member flocks. Applying is easy and only requires a few hours of effort. Start thinking today about how your farm might use funds to meet your goals and plan to apply by August 31, 2022. Learn more by following this link: <https://livestockconservancy.org/resources/micro-grant-program/>.



## 54 AND ME? SHEEP ANCESTRY.COM?

Did you know sheep have 54 chromosomes, compared to a human's 23? And like human genetics, analyzing sheep genetics can tell us a great deal about an individual sheep – family relationships, disease resistance, etc. It can tell us about the history and origins of breeds of sheep.

A 2017 study done by USDA researchers used genetic samples from European, African, and Iberian (Spain and Portugal) sheep, to identify the genetic heritage of Caribbean Hair sheep.



Courtesy: Beth Hall

I can't pretend to understand the technical aspects of genetic data analysis, but the end result tells a fascinating tale that links the history of New World exploration and development with the genetic fingerprint of the St Croix.

The genetic information of the St Croix reveals Iberian sheep ancestors – specifically the Spanish Churra. Turns out that Spanish explorers of the early 1500's spread the Churra throughout the Caribbean. Livestock, including sheep, were left to fend for themselves as a potential food source for subsequent expeditions. The Spanish Churra, also the ancestor of the Navajo Churro, is a hardy, coarse-wool, thin-tailed sheep, tolerant of long cold winters and hot dry summers. There is one illustration in the study of an even deeper analysis of data that appears to show the St Croix and the Barbados Blackbelly as 'clustering on the British side' vs "clustering on the Spanish side" of European sheep – I'm still trying to understand what that means, as there's no further explanation in the article.

The story of the St Croix breed doesn't end with Spanish exploration and the Churra sheep. About 100 years later, in the 1600's, the search in the New World for gold and silver slowly transformed into an effort to produce "white gold" – sugar. Sugar cane farming requires intensive labor, and enslaved people were brought from West Africa to work the Caribbean sugar cane fields. West African Dwarf hair sheep, the Djallonke, were brought on the same ships to the same islands of the Caribbean.

The Djallonke are a 'dwarf breed' native to the West coast of Africa and somewhat inland, from Senegal to Angola and in Botswana. Today, ewes average about 65 cm (25.5 inches) at the withers, and about 25 kg (55 lbs) in weight. Rams are slightly larger, have a throat ruff and mane, and most rams (>90%) have horns. A significant portion of both ewes and rams have wattles (about 20% but varying widely in different populations). Most are white (about 50%) or white with some bits of brown or black color (about 20%, with population variation). 30% are ½ or more black. They are resistant to animal trypanosomiasis (tsetsefly disease) and are quite prolific, often having twins. Hmm, some of that description sounds quite familiar.

The feral Churra sheep and Djallonke blended and merged over time. The St Croix, and other New World hair sheep, are the result. The genetic analysis reveals that

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## 54 AND ME? SHEEP ANCESTRY.COM...

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Dorpers, East African breeds and today's British breeds are genetically quite distinct from the St Croix.

The Caribbean-origin St Croix breed represents West African hair sheep heritage combined with European sheep characteristics, and refined over 4 centuries – a living reservoir of proven adaptive fitness traits that contribute to sustainable sheep farming in the face of drug-resistant parasites, climate shifts, and changing economic constraints.

*Crystal Criswell*

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0179021> , “Whole genome structural analysis of Caribbean hair sheep reveals quantitative link to West African ancestry”

### DID I OR DIDN'T I?

It's always in the back of my mind – did I just write about this before or not? Like “Did I shut that gate?”, “Did I turn off that spigot?”, “Did I pay that bill?”, “Did I feed the dog today or was that yesterday?” and on it goes. Please do not call SPCA on me for that last example – it was just that. We do not even own a dog right now! Anyway, the mind game, you know!

I would think it is a first for the breed, not that it really matters about the numerical order; Our entire flock has been DNA tested and results are pending. We used Flock54 for the testing. I did it for numerous reasons. One ties into a project that SCHSB is partnering with skilled researchers. Lori Marion can flesh out the details on that project in her article. Merely a boost to her article: the ramifications of that project and DNA testing will have a huge impact on the pending new registry for crossbred sheep.

I have read research articles which concluded that many sheep are linked to parents via errors. Some ewes might steal a lamb, some lambs might migrate to another ewe, human records error and other potential problems can add to this problem. So the Flock54 testing will clearly identify parentage. There are benefits to the testing beyond



Courtesy: Beth Hall

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## DID I OR DIDN'T I...

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that as you can know scrapie resistance (RR, QR or QQ), % inbreeding, some markers tied to productivity, genetic disease potentials and much more.

Tied to that effort, I am convinced that visual selection for parasite resistance via livability, clean rears, FAMACHA (resilience) or productivity and individual gain and performance has not yielded a 100% solid and replicatable result for our flock. So I bought a microscope, took the time during “covid hermit times” isolation to study up on fecal egg counts (FECs), bought McMaster slides and some Epsom Salts and began the learning and effort to check all lambs and breeder rams. What I can tell you is that a St. Croix over 1 year old (from our breeder rams) have natural immunity and all checked low. What I can also tell you is that **observations and obvious resilience in lambs do not equal true resistance** via the FEC numbers. And the whole truth – not all resistance sheep are the most attractive, the largest, the biggest...

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*“Parasite resistance does not mean “no worms” or never worming again.”*

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There are two actions I want to make from this effort:

1. With true parentage and FEC data I want to cull all lambs and parents of lambs with high FECs as commercial or market sheep. This will also be an on-going selection pressure for the coming years. We have a multi-generation closed flock (started in 2006 and last breeder was purchase in 2009) of “no-wormed” breeders. No sheep that ever needed to be wormed has ever sired any sheep here and that will not stop as a selection process tightens.
2. We have a line of St. Croix sheep here called the “250 line” based on a great old ram (tag 250) we were able to buy in 2009. His family tree is like a beanpole as he was highly inbred. Some of the parentage has no ancestors listed in the registry so they were foundation animals. The 250 ram and his offspring have been great sheep. But a fraction of that line has been culled several times for symptoms of parasites. I want to retain the 250 line as it is truly unique to the entire breed but I want it to be parasite resistant. So science and selection will do that.

Director Jason Webster had an astute comment to add to this without him knowing it! Way to go Jason! **“Parasite resistance does not mean “no**



Courtesy: Beth Hall

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## DID I OR DIDN'T I...

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**worms” or never worming again.”** The scientific basis is to see if the number of eggs, when you check a lamb, is above or below a set threshold of “eggs/gram of manure”. There are eggs in the feces of resistant sheep. But there are not enough to bother them. There is a threshold for lambs and a threshold for adults. But if you get in a time of drought, animal stress, have a sick animal or know that an animal has a compromised immune system – you might find a lot of eggs to show up in that animal even if it is deemed resistant during normal times. The summary- there may be some rare times that you choose to deworm resistant lambs to keep them healthy. Thank you Jason for that balancing thought.

Courtesy: Beth Hall



I will add a stray comment – you know: the mind wanders! I got so enthused over doing FECs on the sheep that I did FECs on weaned calves. If sheep can go without worming – how about cattle? To end ASAP – only about 20% of the (never wormed) calves showed FEC values to warrant considering the use of a worming product. Selections will be used to improve that species as well. If I can help, explain any of the new technology or applications and encourage you to

know more about your sheep, please let me know. I’m all in on it. And if you call – I’ll make a note so that I do not go back through the “Did I...?” routine!

## FINGER PRINTING ST CROIX SHEEP

The project to identify the genetic 'fingerprint' (hoof print), showing what a St Croix sheep is, is underway! Using registry data, St Croix sheep who have had a super-size influence on future St Croix generations have been identified. The owners of some of these animals will be contacted, and asked to provide an ear punch tissue sample from that animal, or its closest living relative in the flock.

Each producer contacted will sample up to 5 sheep, representing both those prolific sheep identified, as well as the most diverse sheep – sheep who are 'outstanding in their field' for 1 reason or another – growth and muscling, feed efficiency, reproductive traits, color or scurs, etc. The intent is to cover the whole range of St Croix characteristics, both the producers' top-of-the-line, and at-the-edge-of-breed-standards.

The research results will provide new and in-depth genetic information. The data from these approximately 100 sheep will be used to define the genetic base of St Croix sheep. Further research using the data may reveal specifics of St Croix sheep - perhaps identi-

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## FINGER PRINTING ST CROIX SHEEP...

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...determining the prevalence of certain disease resistance genes, or the genes that influence parasite resistance, weight gain, heat tolerance, prolificacy, or feed efficiency of St Croix sheep – only the future will tell!

The individual producers, who invest their time and energy to obtain the requested tissue samples (we'll supply the sample collection TSU's (Tissue Sample Unit) and send the applicator tool on loan to each producer), will receive back, free of charge, full genetic data on their chosen sheep – everything from Scrapie resistance genotyping, OPP genetic resistance, fertility, and a host of metabolic diseases.

So, if you are a producer who is contacted, we hope you will participate in furthering research on the St Croix breed. We'll discuss the tissue sample required, what testing will be done, and accessing the results. If anyone is particularly interested in this project – assisting or participating, please call directors Eddie or Lori!

Courtesy: Beth Hall



#### SCHSB MISSION STATEMENT

Establish a central organization (within the United States) to register, promote, and develop the growth of the St. Croix breed of sheep.

Define the distinguishing characteristics of the breed and establish specific minimum standards for registering individual animals

Insure that individual animals meet specified criteria in order to be registered as members of the St. Croix breed

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**Publications will be sent on 2/1, 6/1 and 10/1. Cut off dates for articles and ads are: 1/15, 5/15 and 9/15.**

The full color ad sizes available for the publication are as follows:

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You have a couple of ways to request ads. You may use the online form available on our website. This is the easiest way as it also allows

you to pay online using check, debit or credit card via Paypal (you do not need to have a Paypal account). The form is located at: <http://stcroixsheep.org/ad-request>. Alternatively you may send an email to [ads@stcroixsheep.org](mailto:ads@stcroixsheep.org) with your request and artwork. If your artwork is too big, we have a Dropbox that you can use to upload your file. When you request an ad by email you will need to send a check and will receive a reminder to do so (with the correct address) via email.

### Creation of Artwork for Ads

We can prepare your artwork for you for a fee. Artwork for a business card sized ad will be created for **free** if you only want text. There will be no images and we reserve the right to edit your text to fit. You have room for a short phrase or sentence to describe your business along with your farm name, your name and address a phone number and your email. If your text is too long we will edit it as necessary without contacting you.

If you want a business card ad with images or a larger sized ad created, then there will be a one off charge. Just let us know you want artwork created (using the [ads@stcroixsheep.org](mailto:ads@stcroixsheep.org) email or [online form](#)) and the editor will contact you to discuss your requirements. The artwork created can be used as many times as necessary without another charge (even in other publications). The additional one off fees are as listed (Prices may vary depending on your requirements with the additional fee being charged separately):

*Our editor also provides website creation and hosting for farms and businesses at a reasonable fee. If you have any questions about these services please contact them directly at [richard@chventures.com](mailto:richard@chventures.com).*