NODPA News

Northeast Organic Dairy Producers Alliance

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A special thanks to Wolfe's Neck Center for generously hosting the 21st Annual NODPA Field Days!

Melanie and Patrick Harrison of Harrison's Homegrown Organic Dairy Farm

FEATURED FARM: HARRISON'S HOMEGROWN ORGANIC DAIRY FARM, ADDISON, VT

Relocation and Certification: Changes on the Dairy

By Tamara Scully, NODPA News Contributing Writer

Melanie and Patrick Harrison began farming together in a rented tie stall barn in Lancaster County, Pennsylvania - in which Pat had established a conventional dairy herd in 2002. They remain farming together today on their certified organic dairy, Harrison's Homegrown Organic Dairy Farm, in Addison, Vermont, where they relocated - along with their herd. - in 2008. Along with the relocation of the farm, a lot has changed in the past twenty years.

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Update on the Organic Dairy Market in the Northeast

By Ed Maltby, NODPA Executive Director

This summer has seen contracts cancelled across New England and New York and a dramatic increase in feed costs. One hundred and thirty-five organic dairies in the northeast have lost their contracts since July 2021. Horizon/Danone has cancelled eighty-nine farm contracts and Maple Hill Grass Fed has cancelled forty six contracts. Many organic farmers that have not lost their contracts wonder if they might be

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Message from NODPA Co-President

It is said that when a door closes to you, a window always opens somewhere else. Back in late August when 89 farms received letters from Horizon/Danone that their contracts would not be renewed, a seismic shudder echoed through New England and the Northeast. In September and October, farmer meetings and conference calls erupted, task forces were formed in every affected state, a petition signed by thousands was sent to Danone, members of Congress were signing supportive letters to the USDA, and other organic cooperatives and processors were searching for ways they might help. People began to talk about changing the way our food system works, about local food security, about keeping our local processing capabilities. These were dynamic conversations that probably would not have happened if this crisis had not occurred.

Then Stonyfield/Lactalis announced that it would take on many of the affected farms in Maine, New Hampshire and Vermont. And in late October, a Chobani representative began visiting affected farms in New York to secure a milk supply for their planned organic yogurt products.

On the last Thursday of this month, most of us will be joining family and friends around a table to celebrate Thanksgiving. And although there is always a bit of eye-rolling from the younger folks, we like to go around the table and each person adds one thing they are really thankful for this year. I think I will have a longer list than usual…

I am hopeful that many of these farms will have a market going forward should they choose to do so. I am grateful to be part of a supportive community that will come together to help solve problems with a passion for fairness and organic integrity. I am grateful to the organic consumer who makes the choice at every visit to the grocery store to support organic dairy farmers. And, I'm grateful that I'm involved with NODPA, an organization that has been working incredibly hard with a diverse group of federal and state organizations and non-profit groups that are addressing this crisis and seeking solutions for organic dairy farm families. November is NODPA's Fund Drive month, and you all should have recently received our appeal letter. Please be as generous as possible so that NODPA can continue to represent all organic dairy farmers, especially this year when the work is so critical.

Wishing you and your family the happiest of Holidays!

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From the NODPA Desk - In order to accommodate all the news, the 'From the NODPA Desk' will return next issue. – *Ed Maltby, NODPA Executive Director*

Pay And Feed Prices November/December 2021

By Ed Maltby, NODPA Executive Director

The USDA AMS reports for the months of July, August and September 2021 that the total fluid products sales of packaged fluid product shipped by milk handlers were 3.5, 3.6 and 3.7 billion pounds of milk respectively which were lower than in 2020, but that was an abnormal year. For organic, the volumes of milk were 221, 228 and 227 million pounds correspondingly, and the comparison with 2020 is not good. If we compare the data for 2019 to get a more typical trend there was a marginal increase in sales compared with July 2019, but a two and three per cent increase compared with August and September. The charts below are the limit of the information that USDA currently provides so it is impossible to draw any conclusions as to where those increase took place, the volume of milk balanced into the conventional market, or the number of organic cows in different states, regardless if there is a national surplus or not.

Sales of Organic Fluid ilk July 2021

Product Name	Sales of Organic Fluid Milk		Change from 2020	
	July-21	21 Year to date	July-20	Year to date
	Million pounds		Percent	
Organic Whole Milk	98	733	-7.0%	-1.2%
Organic Reduced Fat Milk (2%)	76	565	-7.4%	-0.90%
Organic Low Fat Milk (1%)	24	185	-22.4%	-8.6%
Organic Fat Free Milk Skim	14	104	-18.8%	-10.6%
Organic Flavored Fat-Reduced Milk	7	51	11.0%	6.9%
Other Fluid Organic Milk Products	0	0	0.0%	-3.4%
Total Fat Reduced Milk	121	906	-11.2%	-2.1%
Total Organic Milk Products	**221**	**1650**	**-9.0%**	**-5.3%**

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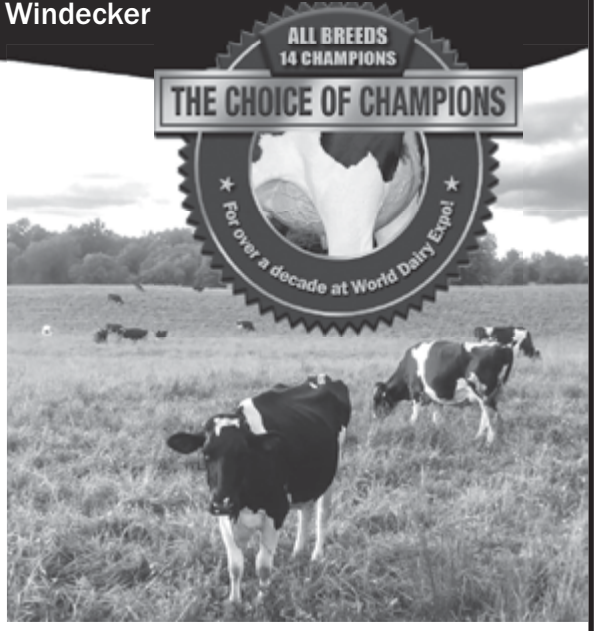
"... good news for the rest of her lactation!"

— Bryce Windecker



WINDEX FARM, FRANKFORT, NEW YORK
Dale, Deb, Bryce and Kayla Windecker
100 Registered Holstein cows
BAA 107.6, 7 EX, 47 VG, 28 GP
65 lbs/cow/day, SCC 110,000
Certified Organic grazing herd

Photos: Bryce, Deb and Dale Windecker with hay equipment. Bryce at 2019 Big E with his bred-and-owned show cow from a top cow family Windex Fremont Dandy EX94. She was nominated Jr. All-American 5-year-old.

"If you can get a cow rolling along when she freshens, it's good news for the rest of her lactation. That's why we use Udder Comfort™ on every fresh cow, especially heifers, 2x/day for 5 days after calving," says Bryce Windecker, cowman in charge of the breeding program at Windex Farm, Frankfort, N.Y. He transfers to Cornell last fall.

Bryce explains how his family has used Udder Comfort for 10 years, since before being certified organic in 2017: "This product is better than anything else. It's real prevention. We use the yellow sprayable Udder Comfort and we like to cover the udder on a fresh animal.

"This gets swelling out fast. That's better for their comfort level and udder quality as a whole, to keep SCC low."

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next. And then we have the crazy high prices for feed protein which might break the back of some of the more precarious farms. Organic corn and soybeans are at record high levels as pay price stagnates and milk buyers start to impose trucking charges. Many producers are questioning their future in organic dairy in a market where the consumption of organic milk increases each year, inputs increase, the retail price stays the same but pay price drops.

Year	Organic Fluid milk sales (million pounds)	Change year to year
2008	1,676	
2009	1,602	-4.60%
2010	1,799	11.00%
2011	2,074	13.30%
2012	2,157	3.80%
2013	2,267	4.90%
2014	2,491	9.00%
2015	2,438	-2.20%
2016	2,573	5.20%
2017	2,577	0.20%
2018	2,594	0.70%
2019	2,604	0.25%
2020	2,880	10.59%

In a conversation with NODPA, Mitch Clark, Vice President of Operations for Maple Hill who is based in Denver, Colorado, said that 21 organic dairy farms had been given 180-day notice in July, and another 25 farms received their 180-day notice in early November. That will leave 135 farms in the New York region shipping to Maple Hill. Hauling costs will be shared with each producer and Maple Hill does not comment on pay price but producers have reported that pay price has been reduced. He confirmed that Maple Hill has a strong market that is growing. Mitch regretted the ending of contracts and hated that they had to do it but "structural changes in the organic milk balancing equation" has caused them to reevaluate their supply.

On October 13, Stonyfield Organic/Lactalis announced its plans to help save at-risk northeast organic family farms by inviting a number of farms into their direct supply program during the coming months. This announcement built on the work already done in the past few months by Brit Lundgren, from Stonyfield, who has been talking with farmers, attended the NODPA Field Days, and through her work on the Vermont Task Force. Stonyfield Organic informed the New York Organic Dairy Task Force that their team was looking at ways of taking on some of the farms in New England that have lost their Danone contract. Their team of people is working to examine where there might be new markets for milk. They reported that they have updated their New Hampshire plant in 2019-2020 and their parent company, Lactalis North America, will be processing in New England for the long term. Stonyfield is looking at ways to expand production to be able to take more milk from CROPP Cooperative that supplies approximately 80% of their raw organic milk.

CROPP Cooperative is gathering information on all farms in both the Horizon and the Maple Hill situations. Their short-term work is specifically with the Maple Hill farmers, as they have a much shorter deadline and OV's grass fed milk market is growing. They will be vetting the entire group of Maple Hill farmers, and hopefully, will be able to make some final decisions on this situation by the end of November, depending on decisions by the board of directors. Travis Forgues, Executive Vice President of Membership for Organic Valley/CROPP Cooperative, shared that they are cautiously optimistic that they will be in a position to help these farmers out. As for the Horizon/Danone farmers, CROPP expects to be moving forward in the next 30-60 days to visit the farms and see how they fit on routes, and if their quality and standards match up with CROPP. One of the biggest hurdles that CROPP has been dealing with has been the backlog of Active Base Requests to increase production of existing member/owners that they have been working through during the last very difficult 5 years. Travis Forgues commented that, "I'm happy to report that we have been able to grant over 60 million lbs. in requests from the Midwest through New England in the last three months. The notifications to these farmers, if they don't already have them, will be getting to them soon." He stressed that this has been a big lift, and very important for their owners to get their base increases before they look to take on more supply. CROPP is now finalizing

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their 2022 budget, and looking at how they can reach out and help these stranded farmers. They are working hard to ascertain their direction as quickly as possible. CROPP continues to be optimistic that they can help, but they are going to be methodical and not make promises that they can't deliver on. "CROPP remains committed to the region, and is trying to find a path where we can help the region with this looming disaster," Travis commented.

Reports are that Chobani representative Roberta Osborne, Director of Farm Sustainability, has been visiting farms in northern New York that have been dropped by Danone with a view to starting an organic line. The Chobani plants in South Edmeston, NY, and its second plant in Twin Falls, Idaho, are not currently organically certified. The Idaho plant is the world's largest yogurt making facility. Chobani has started the process of filing for an initial public offering that could be valued as high as $10 billion.

What's happening now?

In the intervening three-plus months since the termination letters were sent to the Horizon/Danone farms, there has been a lot of action and many questions have been raised.

- The Congressional delegation from the Northeast and the State of Maine each sent letters to the USDA demanding action on the Origin of Livestock (OOL) Final Rule. The Secretary of Agriculture's response has been on many levels. Secretary Vilsack said that a Final OOL Rule will be published in the spring 2022, and engaged Jennifer Moffitt, Under Secretary of Marketing and Regulatory Programs, and Marni Karlin, USDA Senior Advisor for Organic and Emerging Markets, to establish a regional Task Force to coordinate all the different initiatives. Letters have also been sent by congressional representatives asking Danone to live up to their responsibilities as a D. Corp.

- Secretary Vilsack held a virtual meeting of all stakeholders which was followed by the USDA setting up a Northeast Regional Dairy Task Force chaired by Laura Ginsburg

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from the Dairy Business Innovation Center (DBIC) and Brit Lundgren from Lactalis/Stonyfield. They had two virtual meetings on 10/15/2021 and 11/5/2021. The Task Force now has 6 subgroups: Expansion of Processing; Distribution Logistics; Federal Response; Farm Viability; Institutional Purchasing; and Marketing. There are regular meetings of all these sub-groups and they are looking to present their recommendations to the Secretary of Agriculture by mid-December. The purpose of the Task Force as communicated by the facilitators is: "Secretary Vilsack is asking everyone to share their individual recommendations without necessarily needing to reach consensus." This task force is not covered by the Federal Advisory Committee Act (FACA).

- The New York Organic Dairy Task Force met on the 11/11/2021 and had a useful exchange of information. An old idea on co-mingling of organic milk on the trucking side was raised again as a way to improve balancing and cut trucking cost. Old arguments against it were raised again, on varying quality standards of the milk and source identification. But with producers paying for increased trucking costs (one producer mentioned an extra $10,000 a year) producer might want to push the argument again, especially for product packaged in ultra-pasteurized plants. It would need more coordination between buyers and truckers, but it is time to change old ways.

- The State of Vermont set up a Danone/Horizon Task Force which held its first meeting on 8/27/2021 and has been very active in aggregating farmer and processor information. The VT Organic Dairy Task Force has been meeting consistently, with their last meeting on 11/5/2021. They have completed a survey of processors and are doing individual follow-ups with 26 for additional specifics. Farm Viability is working with farms directly. They are talking about a program to pay organic farms the difference between conventional payprice and organic to stay organically certified. The cost would depends on volume of milk.

- Maine Department of Agriculture has been working with stakeholder groups, especially Maine Organic

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Farmers and Gardeners Association (MOFGA) at a high level, with the Governor and Agriculture Commissioner personally involved and very proactive. They both attended the NODPA Field Days on October 1st in Freeport, Maine. ME processors were on the VT survey and there is follow up with some smaller processors who aren't captured on the survey. They are working with farmers on different options: retirement, succession planning, maintaining wholesale markets and requesting FSA loan flexibility.

- Organic Farmers Association (OFA), Northeast Organic Farmers Association of Vermont (NOFA-VT), Northeast Organic Farmers Association of New Hampshire (NOFA-NH), Northeast Organic Farmers Association of New York (NOFA-NY), Maine Organic Farmers and Gardeners Association (MOFGA), and NODPA met with Danone represntatives on 11/18/2021 to disscuss the petition signed by over 15,000 farmers and consumers who stand by those farms in the northeast that have lost their contracts. There was discussion about Danone's responsibility to support those farms and rural communities that are affected by their actions; to reinstate these farmers contracts; extend the contracts to allow farmers more time to make decisions on their future; and offer a contract severance package. At the time of going to press there was no comment on the meeting.

- Concurrently, eleven organic organizations representing organic farmers and consumers submitted a complaint to B Lab against Danone North America describing a breach of the B Corp's Community Core Values.

Many very good people have responded to the actions of Danone and Maple Hill. For those farm families who are directly affected by the loss of contracts, there is no silver bullet but, hopefully, many different options will emerge that might prove effective. Processors are stepping up where they can without endangering their existing producers.

We can see some long term solutions that will create opportunity in the future with the passage of the Origin of Livestock (OOL) and Strengthening Organic Enforcement (SOE) next spring (assuming they have the right language in the final rules and these are implemented immediately). Enforcement on the pasture rule, especially on identifying the growing season for the farm's location rather than just looking for the bare minimium of 120 days. And, there's encouraging news that the Texas Department of Agriculture (TDA) has posted this notice on its website, *"Please note for LIVESTOCK CERTIFICATION ONLY: TDA is currently not accepting any new applications for organic LIVESTOCK certification."* Hopefully, the NOP can withstand outside political pressure to reinstate the TDA as a certifier for their organic dairies. Enforcement on domestic and foreign fraud might encourage the growth of more domestic organic soybeans and corn to satisfy the huge demand from the organic poultry industry and the large organic dairy CAFO's. A lot more organic consumers have been educated about organic dairy and where the premium dollars they pay at retail end up – not with the farmers, who only receive approximately 35% of the retail price as opposed to the 60+% conventional farmers receive. A higher pay price than conventional market is required to meet the higher cost of organic dairy production, it is not a premium. An average farmgate payprice of $31 per hundred does not cut it, and now we have high feed prices which should mean an increase in pay price or a special MAP to cover the increased feed price. It seems unlikely that the buyers will give an increase to cover the extraordinary increase in inputs.

So many opportunities were missed in the past that could have prevented this predictable situation of New England and Northern New York farms being dumped or at least mitigated it. Obviously, better and consistent enforcement of regulations is high on the list, as was completing the Final Rule for OOL in the Obama administration. The Department of Justice ruling that Danone had to divest itself of Stonyfield Farm before they would allow the purchase of WhiteWave to go ahead should have also addressed the continuing lack of competition on the supply side in New England. To cut so many farms at one time, in a market that is still in recovery rather than waiting for some basic corrections, does not reflect the intent of the agreement signed by Danone when it completed the WhiteWave purchase. It is evident from the response that NODPA and others have had from consumers over the actions of Danone, that consumers do not support Danone's actions but do support paying farmers their cost of production and a living family wage. Danone has an opportunity to make it right and correct its missteps that have caused such unneccesary hardships and stress while we are still suffering the effects of the pandemic. We will continue to work to make that happen. ◆

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Dairy Grazing Survey: We Need Your Input

Dear Organic Dairy Producer,

We are writing to today to ask for your participation in a national survey to identify key research priorities, and resources that are integral in optimizing forage production on organic dairy farms through a changing climate. Forage production and quality are the backbone of organic dairy farms and there is enormous pressure to produce both high yield and high quality feed that will sustain the herd through the year without sacrificing milk production, milk quality, or animal health. As you know, grasslands account for over two-thirds of the U.S. land base and contribute $45 billon in value annually to our agricultural system. In addition to providing vital feed for animals that support our dairy and meat industries, forages contribute a host of ecosystem services including soil health and stabilization, water retention, water filtration, carbon sequestration, and wildlife habitat. These benefits apply to our greater food system and landscape. Sadly however, disproportionately low funding and support for forage research and extension efforts is threatening our current and future body of knowledge and expertise of forages. The widespread use and reliance on forages across a wide range of production systems and climates has contributed to an overall lack of continuity in critical forage production and management research. This project aims to unite forage experts to identify farmer needs and determine research and educational priorities that will support successful forage production and management in the organic dairy industry and beyond.

The information generated from this project will be valuable to all organic livestock farmers across the country and will also provide valuable insight to policy makers, governmental agencies, and academic institutions to understand the importance and value of forages and the need for continued support for research and extension efforts.

We appreciate you help! To take **Managing Organic Forages in a Changing Climate** Survey follow the link or QR code pictured at right.

Here is the link to the survey. https://qualtrics.uvm.edu/jfe/form/SV_3WSiRkuNTnidOSi

This QR code can also be scanned and will bring you right to the survey.

For more information or if you have questions about this survey or the full research project , please contact one of the research team members listed below. Thank you!

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National Organic Standards Board Meeting:

October 13 & 14 (Comment webinars), and October 19 - 21, 2021 (NOSB meeting)

Notes and remarks that relate to organic dairy from the Fall NOSB meeting courtesy of the National Organic Coalition

On October 19th, Dr. Jennifer Tucker, NOP Deputy Administrator, AMS, called the NOSB meeting to order and acknowledged the Board members who were attending their last meeting – Steve Ela, Sue Baird, and Asa Bradman. She then introduced Karen Ross, Secretary for California Department of Food & Agriculture, who gave welcoming remarks. The California Secretary was followed by newly appointed USDA Under Secretary for Marketing and Regulatory Programs, Jenny Lester Moffitt. She started her presentation by giving a short history of being an organic farmer and knowing how important organic is. One of the first conversations she had with Secretary Vilsack was regarding organic production. "This is about growing all markets in the US, especially our food markets, and organic production is a key part of that."

She stressed how essential and key organic agriculture is to a climate change solution and is looking to solicit ideas and opinions on how to use the power of government, in partnership with industry and private investors, to advance the necessary changes. She said the goal within the USDA Agriculture Marketing Service (AMS) is to build programs that are climate smart, resilient, and bring more equity to the food and market system. In the administration's Build Back Better initiative, there is $200M for organic transition, and feedback from the industry is that market development is key. Equity is also important and making sure we have systems in place to shepherd throughout that process.

Ms. Lester Moffitt announced the appointment of a Senior Advisor for Organic Markets – Marni Karlin. She will be working across the government agencies so that there is a holistic approach. She stressed how important it is that all of the areas in USDA are working to best serve organic processors, consumers, and standards. Marni Karlin joins USDA with two decades of experience in policy and the organic and emerging agricultural markets space – including consulting with stakeholders across the organic sector from producers to certifiers; service as Vice President of Government Affairs and General Counsel of the Organic Trade Association; and served as the founding Executive Director of the Controlled Environment Agriculture Food Safety Coalition. Karlin has several years of government experience, including time as Counsel to Senator Herb Kohl and Counsel for the Antitrust Modernization Commission.

The Under Secretary finished her presentation with information on the Strengthening Organic Enforcement (SOE) and Origin of Livestock (OOL) final rules which have been written and are moving through the review process with expected publication in the spring of 2022. Organic Livestock and Poultry Practices (OLPP) rule has been written and is based on the 2017 final rule and has started the review process.

Jenny Tucker gave the National Organic Program update which can be found at: https://usda.blackboard.com/bbcswebdav/courses/NOP-998/Media/Videos/NOP-Update-NOSB-Fall_2021.mp4

On enforcement for organic dairy, she laid out the process that is being used to increase accountability and level the playing field. There were no details of enforcement actions or the criteria being used to target high risk operations.

Key NOSB Decisions: The Board voted on many critically important topics at this fall meeting. Here are a few of the most significant votes:

a. **Ammonia extract** – in a win for organic integrity, the NOSB voted 13-1 to prohibit these high nitrogen fertilizers in organic crop production. This decision affirms organic as a "feed the soil, not the plant", systems-based approach that relies on soil-building practices.

b. **Kasugamycin** – an antibiotic petitioned to be used for plant disease control; in a unanimous vote, the NOSB once again affirmed that antibiotics have no place in organic crop production.

c. **Carrageenan** – NOC was deeply disappointed to see the NOSB reverse the 2016 decision to remove Carrageenan from the National List. The Board voted 9 yes, 5 no to remove carrageenan. It needed 10 yes votes to delist. In the absence of compelling new evidence, NOC believes the NOSB should have upheld the Board's previous decision even though USDA has failed to implement the 2016 decision to delist carrageenan.

Livestock Subcommittee (LS)

The following are scheduled to be considered for removal from the national list under the Sunset Review process. The National Organic Standards Board must review every substance on the National List of Allowed and Prohibited Substances every five years to confirm that it continues to meet all required criteria. Comments on the substance are extracts of reports from NOSB members.

Activated charcoal: Sunset Date: 1/28/2024
Activated charcoal is used to treat poisoning of animals, and is the treatment of choice for that. Only small amount is used. There was a little bit of a question of disposal of it in manure but is neutral

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at worse, and might be beneficial in binding up toxins. It is used infrequently in relatively small amounts and has little environmental impact. Furthermore, its use can reduce or prevent livestock distress and death.

Motion to remove from the National List failed.

Calcium borogluconate: Sunset Date: 1/28/2024
High level of support to re-list this substance. It may be redundant with electrolytes, but that's not a concern of most commenters. One stakeholder put some pressure on whether or not withdrawal times might be important. A commercially available concern because it might be derived from a GMO organism at some point.

Motion to remove from National List failed.

Calcium propionate: Sunset Date: 1/28/2024
It is a synthetic material. It is an electrolyte. Treats milk fever. If you don't treat it, you're usually going to lose your cow.

Motion to remove from National List failed.

Chlorine materials – Calcium hypochlorite, chlorine dioxide, Hypochlorous acid generated from electrolyzed water, sodium hypochlorite

Sunset Date: 1/28/2024 (hypochlorous acid); 10/30/2024 (Calcium hypochlorite, chlorine dioxide, sodium hypochlorite)

Comments were consistent that these were needed materials, as part of sanitization systems. A well-rounded sanitation system is needed in the organic system and most comments supported keeping these on the list.

Motions to remove Calcium hypochlorite; chlorine dioxide; Hypochlorous acid generated from electrolyzed water; and sodium hypochlorite from the National List all failed.

Kaolin pectin: Sunset Date: 1/28/2024
Another tool for producers as a gut protectant. Another way we can combat acute issues. Comments were overwhelmingly in support of relisting. To note, both kaolin and pectin are both on the NL on their own. The only alternatives that were listed on the TR were mostly listed as preventative care as feed additives, and other products that are on the NL. Motion to remove from the National List failed.

Mineral oil: Sunset Date: 1/28/2024
Mineral oil is used as an internal lubricant in the case of impaction. When the cow is eating a lot of grasses and becomes impacted; also used for bloat and again that occurs when animals are actively grazing lush spring pasture. Veterinarian commented: Mineral oil has the property of not being absorbed by the gut (unlike other oils where there is possible re-absorption). Quickly reverses digestive upset (according to vet). Motion to remove from the National List failed.

Nutritive supplements – injectable trace minerals, vitamins, and electrolytes

Sunset Date: 1/28/2024

This falls into the limited number of tools that producers have for maintain animal health. Very consistent comments from the community – critical to the toolbox, and no one is looking for them to go away. With injectable nutritive supplements, they are a last-ditch effort to help an animal when they are refusing feed. Motion to remove from the National List failed.

Propylene glycol: Sunset Date: 1/28/2024
Stakeholders see this as essential; there was good discussion on prevention through proper nutrition. Alternatives methods for ketosis recovery are not always effective. Motion to remove from the National List failed.

Sodium chlorite, acidified (ASC)
Sodium chlorite, acidified - allowed for use on organic livestock as a teat dip treatment only; and

Sodium chlorite, acidified - allowed for use on organic livestock as a teat dip treatment only.
Sunset Date: 1/28/2024

One is as a pre-dip and the other is as a post-dip. One from an infection standpoint, and one as a sanitation standpoint. The solutions have superior antimicrobial activity against E Coli and mastitis. Environmentally friendly – breaks down in water. Motion to remove from the National List failed.

Zinc sulfate: Sunset Date: 1/28/2024
A more problematic substance than activated charcoal, because its manufacture creates more toxic byproducts. Zinc is a micronutrient, but it can build up in the soil. Of the 11 comments: none were for de-listing, but there were a couple comments that it should be used in rotation, that soil should be monitored for zinc levels after use (similar for copper sulfate which is used for the same purpose). One commenter said it should be used only after all alternatives had failed. Plusses are it's less toxic/has less impact than copper sulfate, which is the number one product in use for foot rot in ruminants, so it's probably a more positive alternative. Formaldehyde is also used but not allowed in organic. There are a few possible alternatives in organic, but none of them have come out strongly as a good treatment. Positive material that should be re-listed again and, in the future, we should think about annotations for monitoring soil zinc levels. Motion to remove from the National List failed.

NODPA would like to thank Steve Ela for his leadership as NOSB chair. During Steve's tenure as Chair, we have been pleased to see excellent and transparent dialogue at NOSB meetings – this is the public, transparent, deliberative, science-based process that is so foundational to organic integrity. The Board also elected new officers – in 2022, Nate Powell-Palm will serve as Chair, Mindee Jeffrey will serve as Vice-Chair, and Kyla Smith will serve as Secretary. Thank you to all NOSB members – your work is invaluable as we seek to advance organic integrity. ◆

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Pay And Feed Prices November/December 2021

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Federal Milk Market Order 1(FMMO-1), in New England, reports utilization of types of organic milk and cream by pool plants. In August and September 2021, Class 1 utilization of organic whole milk totaled 11.8 and 14.07 million pounds respectively, declining from 12.1 million in August 2020, but increasing significantly from 12.4 million pounds in September 2020. The utilization of organic reduced fat milk in August and September 2021 was 15.38 and 16.18 million pounds respectively, an increase from 12.4 million pounds in August 2020 but down from 17.33 million pounds in September 2020. Year-to-date, there has been an increase of 20.6 million pounds of organic milk utilized as retail packaged product in the FMMO-1 from January to September 2021 as compared to January to September 2020. In the list of handlers and plants that the FMMO 1 lists as either Cooperative State Reporting Units or Partially Regulated Distributing, are WWF Operating Company (*Salt Lake City, UT*), Michigan Milk Producers Organic, CROPP Minnesota and CROPP Wisconsin, WhiteWave Foods, Dallas TX.

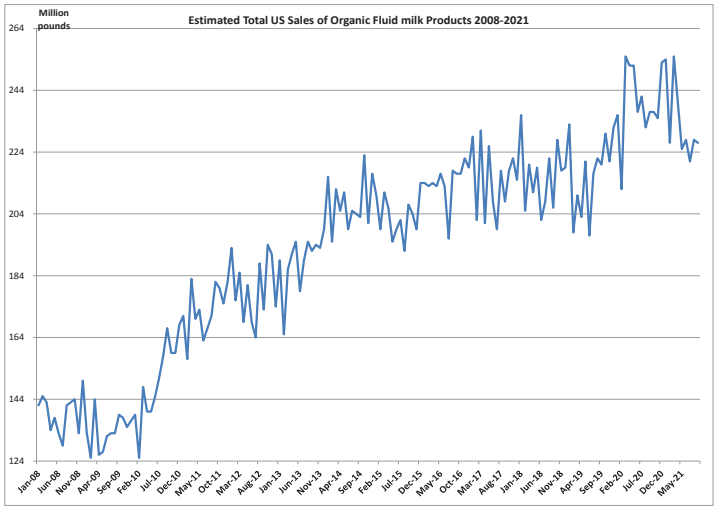
U.S. prices for organic soybeans to feed livestock and manufacture soy milk have surged to record highs as imports that make up most of the country's supply have declined. The organic food sector is also grappling with a shortage of shipping containers and a tight labor market as global food prices hit a 10-year high. U.S. imports of organic soybeans from September 2020 through August 2021 fell by 18% to about 240,585 tonnes, according to U.S. Department of Agriculture data. Shipments sank by 30% from Argentina, the biggest supplier to the United States. Imports from India fell by 34%, extending a pre-existing decline after the United States toughened its requirements to certify Indian crops as organic in January. Prices for organic soybeans delivered in the U.S. Midwest in September reached about $33 per bushel, topping the previous record of about $25 per bushel from 2014-15, commodity data firm Mercaris said. US farmers harvested about 170,074 acres of organic soybeans in 2019, up 37% from 2016, according to the USDA. There's not much more to say that hasn't already been said about the crazy feed prices which will be passed onto the end-user, not the consumer but the farmer. ◆

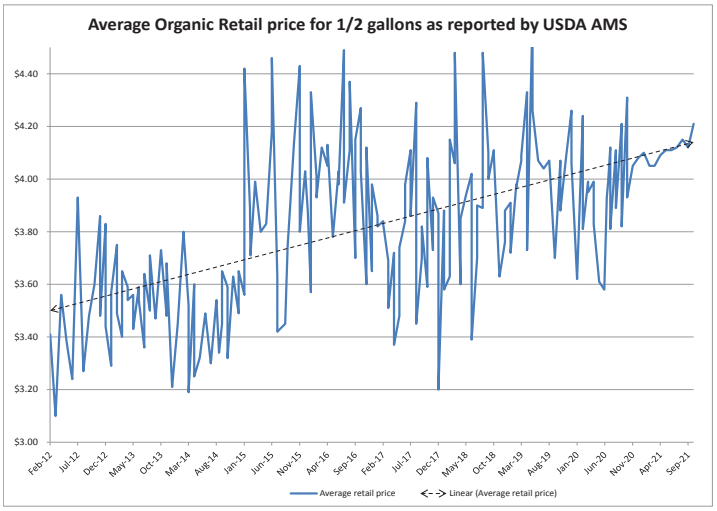
Sales of Organic fluid milk August 2021

Product Name	Sales of Organic Fluid Milk		Change from 2020	
	Aug-21	21 Year to date	Aug-20	Year to date
	Million pounds		Percent	
Organic Whole Milk	103	836	0.0%	-1.1%
Organic Reduced Fat Milk (2%)	78	643	-4.5%	-1.30%
Organic Low Fat Milk (1%)	26	211	1.5%	-7.5%
Organic Fat Free Milk Skim	14	118	-6.7%	-10.1%
Organic Flavored Fat-Reduced Milk	6	57	2.2%	6.3%
Other Fluid Organic Milk Products	0	0	0.0%	0.0%
Total Fat Reduced Milk	124	1030	-1.7%	-2.0%
Total Organic Milk Products	**228**	**1878**	**-1.7%**	**-2.0%**

Sales of Organic fluid milk September 2021

Product Name	Sales of Organic Fluid Milk		Change from	
	Sep-21	21 Year to date	Sep-20	Year to date
	Million pounds		Percent	
Organic Whole Milk	101	937	-2.1%	-1.2%
Flavored Whole milk	2	14	N/A	N/A
Organic Reduced Fat Milk (2%)	78	721	-7.8%	-2.10%
Organic Low Fat Milk (1%)	26	237	0.1%	-6.7%
Organic Fat Free Milk Skim	14	132	-12.4%	-10.4%
Organic Flavored Fat-Reduced Milk	7	64	-8.6%	4.5%
Other Fluid Organic Milk Products	0	0	0.0%	0.0%
Total Fat Reduced Milk	124	1030	-1.7%	-2.0%
Total Organic Milk Products	**227**	**2105**	**-4.1%**	**-2.3%**





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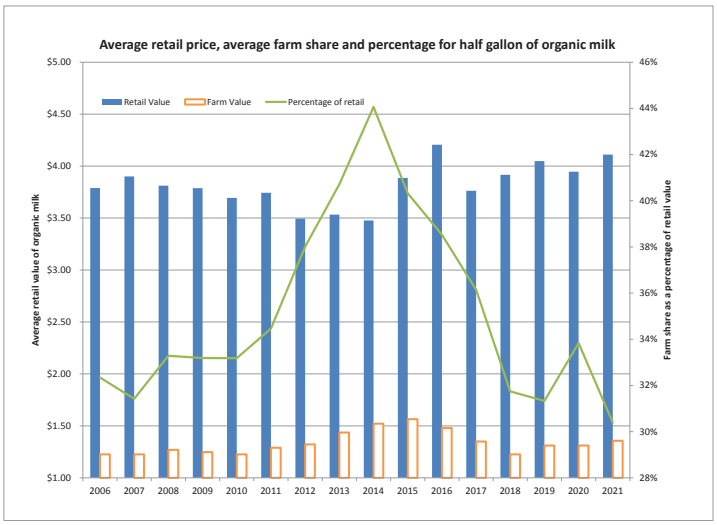

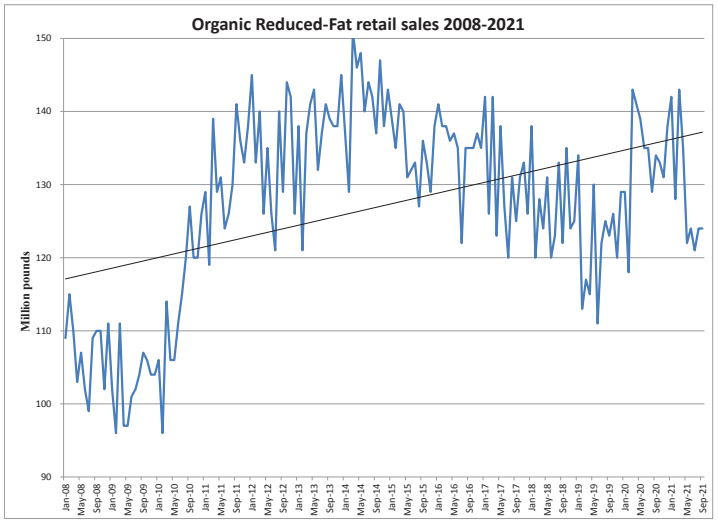

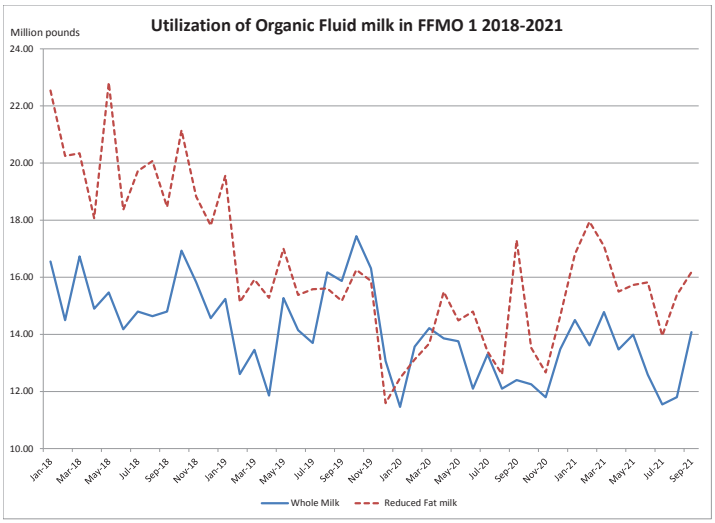

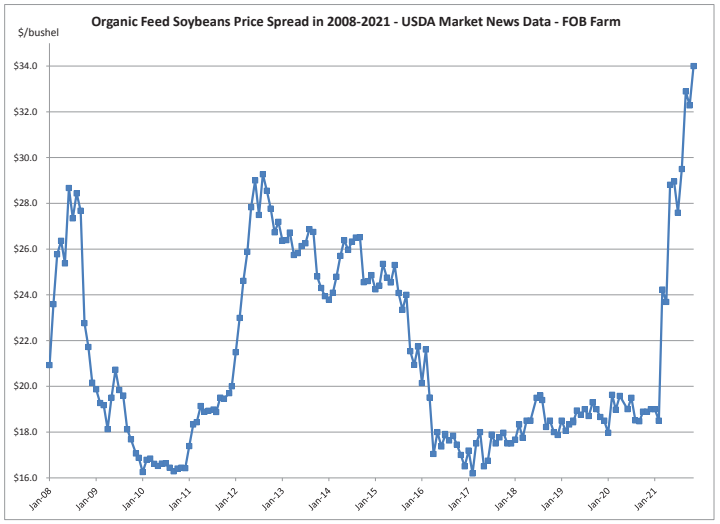

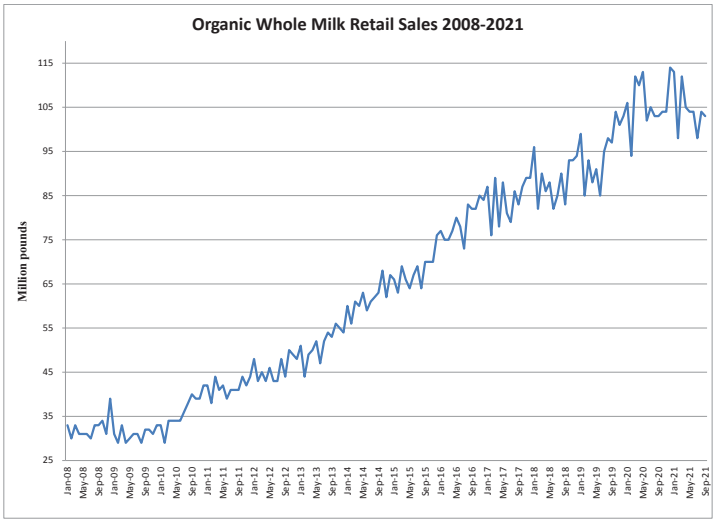

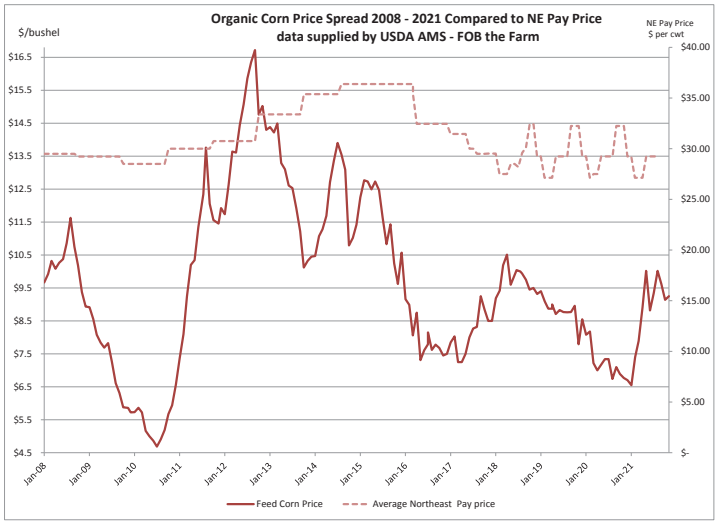

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Invest in Your Forages Like Your Dairy Depends on it... Because it Does!

By Sara Ziegler, Mike Brown, and Patrick Harrison, Field Days Presenters

Sara Ziegler, University of Vermont Extension research specialist, was joined by Maine farmer Mike Brown and Vermont farmer Patrick Harrison to share insights and experiences on getting the most out of your forages through thoughtful and intentional investments. The session began with Sara reflecting on her experiences with UVM Extension. She explains that over the last 8 years she's continued to see a familiar pattern on organic dairy farms: the farms don't have enough manure to cover their farm, they don't invest at all or enough in importing soil amendments to make up the difference, they don't meet the nutrient demands of the forages, and subsequently the stands decline in yield and quality. This brings these farms back to the beginning of they cycle as they often expand their land base to compensate for the lower yield and quality, thus exacerbating the nutrient deficit. Eventually, there is a point at which the soils become so depleted of nutrients, it is far too costly to replenish, especially given the high cost and limited options for organic fertility sources. Sara recalled a quote from an organic dairy producer who participated in some focus groups on organic forage management she and her colleagues held this spring that she felt captured this issue perfectly. The farmer said, "Soil amendments are purchased with luxury dollars." That saying perfectly captured what she and her colleagues had been seeing and working to help farmers overcome. Sara said that continuing to wait for these luxury dollars and putting much needed investments in fertility, seed, and other practices on the "chopping block" year after year has gotten farms into that cycle of needing more and more land to support their herd, further stretching resources on the farm thinner and thinner. She hoped this session would allow the other speakers and the audience to share their experiences and strategies they've tried or have found to be successful on their farms to help address these concerns.

Mike Brown, a farmer in central Maine, began by sharing some of the challenges he's faced growing Teff, an alternative summer annual forage. Mike originally planned on harvesting the winter rye that was in the field this spring for straw, but when he saw how thin and weedy the stand was and the weather was already threatening droughty conditions, he decided to abandon the rye straw and try the Teff. Teff is a warm season annual grass native to Ethiopia that can be grown in the north during hot summer months to provide supplemental forage when coo season perennial pastures go dormant. Summer annuals like Teff are planted in June in the Northeast and are typically harvested or grazed two times before cooler weather limits their regrowth. They establish best when planted into a well-prepared seed bed where the seed is much more likely to make good contact with the soil and not face competition from existing sod or other vegetation. So, Mike picked rocks from the field a couple of times to smooth it out and ran a Brillion seeder over it with Teff. Unfortunately, the weather turned and became very rainy, slowing the emergence of the Teff to the point that it was deemed a loss. This is one of the unfortunate pitfalls of these summer annual forages. Cool, wet conditions at establishment stunt their initial growth and often results in poor, weedy stands. Mike emphasized that field prep with these types of annuals is make or break. Although farmers are interested in using no-till practices to reduce field prep costs, limit environmental impacts of tillage, or don't have access to the equipment, you risk making a bad situation worse by not getting a good stand. If you don't typically have a field for annual forage production on your farm, it is worth considering utilizing them where you have a field you want to improve. It provides an opportunity to put down necessary fertility and get some additional forage for your dairy or to sell off-farm while you re-establish your perennials. Mike encouraged the audience to consider where an annual might fit on their farms, even if it seems way outside of your comfort zone. Following the teff failure, Mike decided to pivot planting Japanese millet. Japanese millet is also a summer annual grass but one that better tolerates wet soils. The millet established beautifully and, at the time of the field days, was a few feet tall. Mike's next challenge is harvest. Despite the challenges and things not going according to plan, Mike learned a lot and hopes to keep trying to find alternatives that fit into his system.

The discussion then pivoted to soil fertility. Patrick Harrison, a farmer in central Vermont, shared that much of his land was very low in phosphorus and other nutrients when he bought it. It had been in hay and neglected for the last 20 years with very little fertility ever put back down. Over the last 10 years or so, they've pretty much plowed everything up and reseeded. So, it has taken the better part of a decade to get much of it closer to where it needs to be to produce high yielding, high-quality hay and pasture. Patrick figured that, on some of this rented land that they had to till and reseed this spring, it cost them $315 per acre in total between tillage, fertility, and seed. He also figured that it cost him $68 per wet ton to produce haylage on his rented land compared to $55 per ton on the home farm. The rented land is lower yielding and has the additional costs associated with the extra distance for hauling equipment and fertility. They rely on liquid manure from their milking herd and they keep their youngstock on a bedded pack. They recently started drag-lining their liquid manure to reduce compaction from heavy machinery on their hayfields. Any field they can't get into easily with the dragline system receives the bedded pack manure. They still struggle with maintaining fertility, especially on their rented land that is further

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away from their main farm. It is becoming more challenging and costly to secure poultry manure than it used to be and it can be hard to spread during the summer from a public relations perspective due to the dust and smell. Patrick said that the rented land is predominantly all grass with little to no legume. Sara pointed out that it can be easy to overlook but a high-yielding grass crop requires 150-200 pounds of nitrogen per acre. That is not going to be economically feasible in an organic system with dwindling conventional dairy and poultry manure reserves available. Maintaining mixed grass-legume stands, where the nitrogen fixed by the legume help feed the grass, are absolutely necessary in an organic system. This requires making sure that the conditions in your soil are conducive to growing and maintaining legumes. One of the common issues is low pH. Legumes and their nitrogen-fixing bacteria thrive with pH levels between 6.5-6.8. This is why farmers will often say they see a ton of clover pop up after they spread wood ash. In addition, making sure your soil is in good condition with minimum compaction and other nutrient levels at optimum will help legumes establish and stay established.

Sara also shared data from a perennial grass variety trial she manages. In the northwest corner of Vermont where the trial is, a total of 17.6" of rain fell between March and the end of September this year. This is more than 6 inches below the normal accumulation. This region has been categorized as experiencing abnormally dry or moderate drought conditions since December 2020. Sara showed a graph outlining 30 different varieties of 6 grass species; all grown side by side, all receiving the same management. The differences in yield were striking. Sara says she wishes these types of trials were everywhere so that every microclimate could be represented, and all farmers would have this information reflective of their particular growing conditions. Sara says these data show that the species that performed well across the three cuttings are more efficient with water and nutrients and can utilize those resources better and transform it into dry matter. The data also show that some varieties performed well in the spring while the weather was still cool and wet, but never regrew once the weather turned hot and dry. Sara says as farmers continue to face increasingly difficult weather, this type of information will be critical to species and variety selection. Although there isn't a once-size-fits-all approach, it is important to start considering these issues on your farm now, before it is too late. ◆

Sara Ziegler generously wrote this summary of her Field Days session. Sara Ziegler is the Soils and Crops Coordinator, Northwest Crops and Soils Program, University of Vermont Extension. She can be reached at sara.ziegler@uvm.edu or 802-524-6501.

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Insights from the Vet Session

By Tamara Scully, NODPA News Contributing Writer

Those attending the annual NODPA Field Days, held at Wolf's Neck Center for Agriculture and the Environment, in Freeport, Maine, were able to attend an interactive educational session "Ask the Vet," with Dr. Meghan Flanagan, DVM, and Dr. Simon Alexander, DVM. Topics of discussion focused on coliform mastitis, vaccinations, and colostrum and its proper management.

Gram Negative Environmental Mastitis

Mastitis caused by gram negative bacteria in the environment are fast-acting, with cows going from healthy to seriously ill in a matter of hours. Escherichia coli is one of the toxic bacteria which can cause all-to-often fatal cases of mastitis in organic dairy herds. Klebsiella spp, another gram negative bacteria, is also a common cause of environmental mastitis. These coliform bacteria are found in bedding, soil, and manure, and weather conditions can influence their prevalence.

"On their outer surface, they have something called LPS - lipopolysaccaride. And that LPS, its other name is endotoxin," Dr. Alexander said.

Those endotoxins are what make environmental mastitis so deadly. As the bacteria invades the udder, they release the toxins, which then can invade the bloodstream and circulate throughout the body. While the cow tries to fight off the initial infection, the release of endotoxins cause an additional immunological response. White blood cells, hormones and immune mediators and more are released, resulting in leaky vessels and other detrimental symptoms, which quickly can lead to death.

Hot, red swollen quarters is a trademark sign of infection with these toxic bacteria.

"Because the cow is under such high level of stress from the LPS circulating...she can have some bugs from her gut translocate and become septic that way, not from the mastitis directly," Dr. Flanagan said.

Treating the cow debilitated from environmental mastitis will help prevent pneumonia and other secondary illnesses, but don't have much impact on the bacteria causing the mastitis in the udder.

"The most important thing is treating that cow supportively. Keep her hydrated. Get her eating again if you can," he said. "Get the toxin out of the udder. Those are the big things that we do for a gram negative mastitis," along with antibiotics such as Flemoxin.

Supportive fluids will help to flush the toxins out of the cow's system. Stripping the infected quarter every two hour will help get the toxins out of the udder and prevent their absorption back into the body, Dr. Alexander said.

Keeping stalls clean, using pre and post-dips, and vaccination are means of decreasing risk in the herd. Certain times of the year are more risky, too. Grazing in the hot summer means heat stress, which stresses the immune system. Cows in muddy areas is another factor whether due to heat stress or wet weather.

The way cows are fed can also contribute to risk. Some diet changes could promote harmful bacteria, which are then shed in the manure, and pass into the rest of the herd from the environment.

Vaccination

The good news for organic dairy producers is that vaccination to prevent the disease from being so deadly are available.

"There are a couple different vaccines on the market for E.coli... that are pretty effective at decreaing the numbers of cases you see, or at least tamping it down so it's not nearly so severe," Dr. Flanagan said. "There's a Klebsiella vaccine commercially available in the last couple of years, too, that is pretty effective."

When Klebsiella spp. is the cause of mastitis, the disease tends to be more severe than with E.coli infections, she added. Prior to the Klebsiella vaccine being available, some farmers using vaccines for E.coli would see a great reduction in environmental mastitis, but then would have several fatal cases due to Klebsiella. One vaccine also provides protection from salmonella.

"All cows that are milking have that risk of mastitis, Dr. Flanagan said. "Vaccines are definitely a big part of reducing your risk.

ENDOVAC®, J-VAC® and ENVIRACOR® J-5 vaccinations all target mastitis caused by E. coli. Anecdotally, Dr. Alexander has seen a reduction of gram negative bacteria overall on several dairies using ENDOVAC, but those decreases could be due to management changes implemented as well. More data is needed before any conclusions can be made, however.

These vaccines, which target bacterial infections, are shorter-lived than vaccines targeting viruses. Boosters for bacterial

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vaccines in the initial series, or more frequent vaccination schedules, are typically needed.

"We do not have 365 day protection for any of these gram negative vaccinations," Dr. Alexander said. "It's a very short lived immunity from those vaccines."

Vaccination response also varies between individuals. If a cow is stressed, or if they simply don't respond well to an initial dosage, re-vaccination via boosters can help protect not only that individual, but the herd. Nutrition is thought to play an important role in individual reaction to vaccination, with micro mineral status being relevant. Herd immunity requires enough of the population to be protected, and boostering frequently can add protection to the herd.

Because vaccinations days are often stressful for both cows and humans, being mindful of keeping things as calm as possible is a good idea, Dr. Alexander said.

Other concerns during vaccinations include improper handling of the vaccine and using the wrong immunization technique - such as subcutaneous injection when the label calls for intramuscular which can decrease effectiveness or cause side effects. Keeping needles sharp, changing needles between injections, and injecting two vaccines into separate sides of the neck all increase chances of success and minimize negative issues.

If a vaccine is given incorrectly, the drug isn't able to reach the area it is meant target. Lymphatic cells are located in the skin, which is an immune organ. Intramuscular injections get absorbed into the blood stream and then circulated to the lymphatic system.

"Even under the best circumstances, we're probably only 90 percent" at achieving effectiveness with vaccines, Dr. Alexander said.

When providing injections in the field, keeping vaccines in a cooler to maintain the proper refrigerated temperatures, and working in the shade and out of directly sunlight on hot days, can increase efficacy on temperature-sensitive vaccinations. If mixing vaccines, they need to be used quickly in order to be effective, Dr. Flanagan said.

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Insights from the Vet Session

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"When you're putting a needle into that bottle, you're contaminating that bottle," she added, and using a new needle for every cow is an important quality control step. Dull needles can also break off in the cow more frequently.

Proper vaccine technique also prevents issues with quality, such as abscesses and scar tissue in meat. Vaccines for the same diseases may be labeled differently for use depending on their formulation, so producers may have a choice of which delivery method they prefer. Following manufacturer's direction is imperative.

Withdrawal periods also must be considered. Keeping good records, so you can avoid problems by sending a recently vaccinated cow to slaughter is important. Expired vaccines cannot be legally used.

Vaccines can be killed or modified live preparations. Intranasal vaccines are modified live vaccines. Each has pros and cons, including difficulty of use and side effects.

Killed vaccines have to be properly boostered in order to be effective. One dose is not going to be effective. These act on the one part of the immune system - the humoral side. In this response, antibodies produced by B cells cause the destruction of the infectious agent, and prevent spread. An adjuvant, added to most killed vaccines, can often cause some side effects. Killed vaccines don't impact the cell mediated immune response, Dr. Alexander said, but modified live viruses do, providing longer lasting immunity.

Intranasal vaccines are relatively new type of modified live vaccination, and typically have few side effects. They tend to be broad spectrum, triggering an interferon response which stimulates immune response against all viruses. These vaccines deliver immunity to the mucous membranes directly, which is where many of the viral diseases attack. The antibody response from intranasal vaccines occurs right where any respiratory virus would be entering the body.

Antibodies from colostrum can also interfere with immune response from intramuscular injections, and calves may not have as good of a vaccine response when colostrum antibodies remain circulating. But with intranasal vaccination, the mucous membrane is able to respond even with colostrum antibodies present, Dr. Flanagan said.

Colostrum

"If there is a most valuable substance on every single dairy farm, it is colostrum. It is just amazing," Dr. Alexander said. "The difference on farms... that track colostrum quality... and then, to look at the calves and how they do. The calves that get low-quality colostrum do worse. They just always do."

Feeding the cow so she can make that high-quality colostrum, giving her appropriate vaccines at the right times, and also harvesting colostrum in a clean and timely manner are all essential to calf health. If colostrum is not kept in as clean an environment as possible, and stored at the proper temperature; it cannot do its job. And it could do more harm, if bacteria are now thriving in that colostrum.

Colostrum also has to be administered within a short time frame in order to be effective.

"By 24 hours after that calf is born...there is very little absorption that is going to happen," Dr. Alexander said. The window for the newborn calf's gut to absorb things across the gut wall and directly into the blood stream is a short but effective one. Making sure the first thing the calf consumes is high-quality colostrum is a necessity. If the calf eats something first, it can be

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ingesting harmful bacteria. And without the best colostrum being absorbed into the blood stream, the calf will always be at a disadvantage.

Cooling colostrum quickly is very important. Large quantities of colostrum can not cool down rapidly in the refrigerator, and a prolonged cooling time can allow bacteria to grow. Small, narrow containers are better than those with less surface area. Using ice water baths can hasten cooling, too.

Freezing colostrum can destroy some infectious agents. Depending on microorganism, colostrum from infected cows might be usable if frozen. Thawing frozen colostrum needs to be done slowly, in warm water only—not hotter than 120-130 degrees, as hot water baths will destroy the antibodies. Colostrum should not be cold when fed to the calf, but warmed to body temperature in order to enhance absorption.

"The more closely we can approximate the way that calf was designed to take colostrum in, the better she's going to do," Dr. Alexander said. "Take colostrum right out of that cow, and get it right into that calf."

If the mother cow is sickly, or birthed early, then harvested high-quality colostrum from other cows, which has been handled and stored properly, is best.

Good quality colostrum is typically found in older cows, who have more antibodies to many different organisms. Bloody or pussy colostrum is not a good idea. Specific gravity can be measured via a Brix refractormeter, a very inexpensive manner in which to test the quality. A Brix reading above 22, and preferably above 25, indicates a good concentration of antibodies, which are then available to be absorbed into the calf's blood system and increase her immunoglobulin G (IgG) levels.

"Beyond that 24 hours, there is no way to bump up those antibody levels, except plasma transplantation," Dr. Flanagan said. "It's much easier to try to make sure she gets good quality colostrum, or colostrum replacer, in a really timely manner."

Multiple colostrum feedings are fine over the first 24 hours, to enhance the IgG levels. You can use the Brix refractometer to track the IgG levels of the calf's blood serum. A day or two after receiving the colostrum, refractometer readings on the blood serum correlates with the actual immunoglobulin levels.

Colostrum has to be tested via refractometer at the calibrated temperature. Testing colostrum regularly is recommended. When colostrum quality drops, respiratory issues increase, and calf health suffers.

For those allowed to utilize colostrum replacer, low-costs options are not worth buying, Dr. Alexander said. Spend a bit more for a better quality.'

Proper use and delivery of vaccinations, providing high-quality colostrum to newborn calves, and a clean, low stress environment on the dairy farm are all important factors in maintaining herd health. Epigenetics, or the study of how the environment influences genetic expression, is becoming better understood, and is thought to play a major role in animal health.

"There is an environmental impact on your genetics," Dr. Alexander said, and minimizing stress in our animals is a smart way to maximize animal well-being. ◆

Dr. Simon Alexander, DVM, Exeter Veterinary Services, Exeter, Maine can be reached at (207) 296-2100, and at https://exetervet.net/. Dr. Meghan Flanagan, DVM, Annabessacook Veterinary Clinic, Monmouth, Maine, can be reached at (207) 933-6424.

2021
NODPA Field Days - Session Summaries

Government Support and Action, and PFAS on Farms: Field Days Recap

By Tamara Scully, NODPA News Contributing Writer

At the NODPA Field Days, held this year in Maine at Wolfe's Neck Center for Agriculture and the Environment (WNC), attendees were treated to a taste of some very cold weather on Thursday and a beautiful but cool early fall day on Friday. Along with excellent food and a very nice setting combining farm, forest and seacoast, organic dairy farmers were enticed to attend the event by a lineup of speakers willing and able to provide the farmers with the support they'll need to face upcoming challenges.

When dairy farmers attend a conference, the speakers typically include Extension specialists, university researchers, representatives from feed or other essential business partners, and other dairy farmers who have something to share about their operations and methods. The NODPA Field Days had all this and more, with a lineup of government officials including Maine Governor Janet Mills and Ag Commissioner Amanda Beal taking the time to support organic dairy farmers during these challenging times.

"Last month, fourteen of our Maine organic dairy farms, and dozens of dairy farms across northern New England, got an unexpected and very disappointing notice from Danone North America, saying that Danone was discontinuing" their organic contracts, Governor Mills said. "These farms own or lease about 4500 acres in Maine alone, and account for about seven percent of our producers in Maine."

Governor Mills understands that not only is this devastating for each and every dairy farmer whose contract is affected, but is a decision that will have "ripple effects" through the economy. She has asked that Danone make substantial monetary contributions to a Maine company that has been working to bring an in-state milk processing facility into production, and has asked Danone to make monetary donations to the Northeast Dairy Business Innovation Center as well.

The Governor explained that she has gathered together numerous organizations and associations involved in the dairy sector - including the NODPA event host, WNC - to band together and find a way to "meet the needs of every individual farm" and support organic dairy farmers through this crisis. Her administration has appealed to the Federal government to ask for intervention and assistance for impacted farms, and addressing the workforce problem in the milk hauling industry is of the utmost concern. She has been advocating for the finalization of the proposed Origin of Livestock Rules.

"Our organic dairy farmers in the Northeast have long been at a disadvantage, as you know, because the certifiers in other regions are not enforcing the rule as intended. We need a level playing field," she said. "Every organic dairy farm in Maine is important to our state. Every year, Maine's organic dairy industry contributes 750 million dollars per year to our economy. But like all agricultural businesses these days, you face challenges that threaten your future."

Governor Mills spoke of the 2500 percent rise in costs of production for dairy farmers which has occurred between 1969 and 2017. That massive increase in production costs, adjusted for inflation, is not only an almost insurmountable burden, but also reflects the need for protection against low milk prices, and the importance of bringing economic stabilization to the industry.

Dairy farmer training, overall workforce development, and the mitigation of threats from soil contamination by perfluorocarbons (PFAS) are other areas of active concern and programming in Maine.

Commissioner Amanda Beal, who grew up on a dairy farm in Maine, was also present to address the group. Beal spoke to the loss of the Horizon milk contracts by Danone.

"We pointed out that some of the Maine farms that they are cutting off were some of the pioneers of certified organic commercial dairy farming", having begun with the Organic Cow in the 1990s, Beals said. "The Organic Cow was, of course, eventually acquired by Horizon, and some of those farmers remain loyal to that company."

Finding solutions to the dairy farmers' plight is a priority for the administration. They will be exploring potential new market opportunities, engaging with other processors in the region, and conversing with the dairy farmers themselves. State and regional level plans and cooperation will be needed, she emphasized.

"What is clear is that organic dairy production in Maine has become more and more vulnerable as much of the control and the decisions about processing are made outside of our state," Beal said. "We're committed to working to solve this issue in the

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long run. We welcome your ideas and input on how we can best play a productive role in supporting the work you do."

Forever Chemicals

Another issue at the top of the list of concern for Maine's dairy farmers, as well as those from other regions, is the enigma of "forever chemicals" which have made their way onto the land, and into the milk. Both Governor Mills and Commissioner Beal addressed this significant concern.

Perfluorocarbons are synthetic chemicals which contain a carbon chain of various lengths, where the carbon molecules are all bonded to fluorine. This carbon-fluorine bond is a strong one, and thus the chemicals are persistent in the environment: They are "forever chemicals."

Andrew Smith, State Toxicologist with the Maine Center for Disease Control and Prevention, presented a session on PFAS and their impact on dairy farming. These chemicals are found in soils where biosolids have been spread. While organic dairy farmers can not utilize biosolids, lands may have historically been amended with them, and the organic farmer may not be aware of that history. PFAS can also be found in water sources, as they are more or less soluble in water depending on the length of their carbon chains. PFAS are also found in plant material. PFAS are measured in parts per billion or parts per trillion.

Because of their persistence and potential toxicity, as well as the possibility of their being present in milk or meat at levels of concern to humans, PFAS mitigation is an ongoing area of research. While all PFAS - a large group of chemicals - are of concern, the category of primary concern is perfluorooctanesulfonic acids (PFOS). PFOS are long-lived chemicals which persist from soil to table. Understanding just how much contamination in the environment leads to too high of a PFOS level in our milk and meat is the goal of researchers.

The toxicity value is the tolerable dose of contaminant that can be ingested by the vast majority of the population without deleterious effects. But finding out how that translates back to soil contamination levels is not a simple equation.Even soils with no history of biosolids being spread have a trace level of PFOS, as these synthetic chemicals have become pervasive in our environment. How many ppb of PFOS in soil is too much?

Cows will ingest the PFOS which are in their feed. Milking dairy cows will reduce the amount of PFOS in their bodies, as it is released into milk. Because commercial milk from any one farm is diluted by the milk from many others, high levels of PFOS in the bulk tank does not typically result in unacceptable levels in milk at the retail level, as milk form many farms is co-mingled by large processors, Smith said. Even so, mitigating the levels of these chemicals found in our food supply is crucial.

PFOS are found in locations where biosolids, particularly those whose source includes industrial sites such as papermills, have been applied to the soils. Soil levels tend to vary significantly from one field to another, and even within fields, making any remediation more complicated.

Crops take up these chemicals from the soil, and different crops will demonstrate varying degrees of PFOS contamination when grown in the same soil. The rate at which the crop takes up the PFOS from the soil is known as the transfer factor. There are also differences observed in plant uptake from field to field, even when soil PFOS values are similar. It is thought that organic

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matter, pH, and cation exchange rates may be playing a role in these "field to field differences," Smith said.

Not every feed crop is equally impacted by PFOS in the soil. Straw has been found to translocate more PF0S than do the grain of small grains. And hay and grasses have lower plant transfer factors than does corn. Corn silage will have more PFOS than the corn ear. Snaplage will have higher levels than earlage. High moisture ear corn will have much lower levels than will corn silage grown on the same soil.

"That provides options for a farmer who has contamination," Smith said. "We're pretty confident that you can grow corn for grain" even with very high PFOS levels in soils.

The levels of PFOS in the soil are the most important as PFOS translates into milk and meat more than any other PFAS. Milking provides a means of excreting PFOS from the cow. Meat from a cow culled from the milking herd will not have as high levels of PFOS as would meat from a heifer that was never milked. And, the half-life of PFOS in a cow's milk is about 55 days, but that rises to 155 days for the half-life of PFOS in meat.

As heifers grazing or being fed crops grown on PFOS contaminated soils begin milking, they will release elevated PFOS levels in their milk, so bulk tank values will rise. Once the heifers have been milked for a while, their body levels will decrease, as will the PFOS level in their milk. Producers should be aware of this spike in PFOS that can occur when bringing heifers into the milking herd.

There is not a widespread issue of PFAS contamination in our food. There have been a few isolated incidents of concern, but most testing of retail milk and meat is not showing significant issues. We are all exposed to these chemicals in household items such as makeup and non-stick cookware. Elevated PFAS levels lead to testicular and kidney cancer, decreased response to vaccines, increased cholesterol levels and changes in liver enzymes. Pre-eclampsia and high blood pressure during pregnancy are also a concern.

The FDA is currently reviewing toxicity values of PFAS in various food products. Part of that equation has to do with consumption. If a food is consumed more frequently, acceptable levels would have to be lower than in a food consumed only occasionally. That, too, might offer producers finding contaminated soils on their farms options, Smith said. Perhaps adding value to the milk, so that it is used in a product with less frequent consumption, would allow that milk to be used if it was not within set levels for fluid milk.

The correlation between plant levels and milk PFOS levels remains under investigation. Research into the uptake of PFOS into various forages and feed crops is ongoing. Field-to-field variations in plant uptake aren't fully understood. While researchers continue to puzzle out the chemistry of PFOS, and what that means for milk, dairy farmers are foremost in their minds

"How high does the soil (PFOS level) have to be, before we even think of testing milk?" is one question that researchers have yet to answer, Smith said. "We have to be really thinking about the farmers. How do you provide incentives for them? For a problem that was not of their doing?"

"We are doing everything we can to combat the threat of PFAS," GoveRnor Mills said. "I want to keep our farmers alive." ◆

FEATURED FARM

HARRISON'S HOMEGROWN ORGANIC DAIRY FARM

ADDISON, VT

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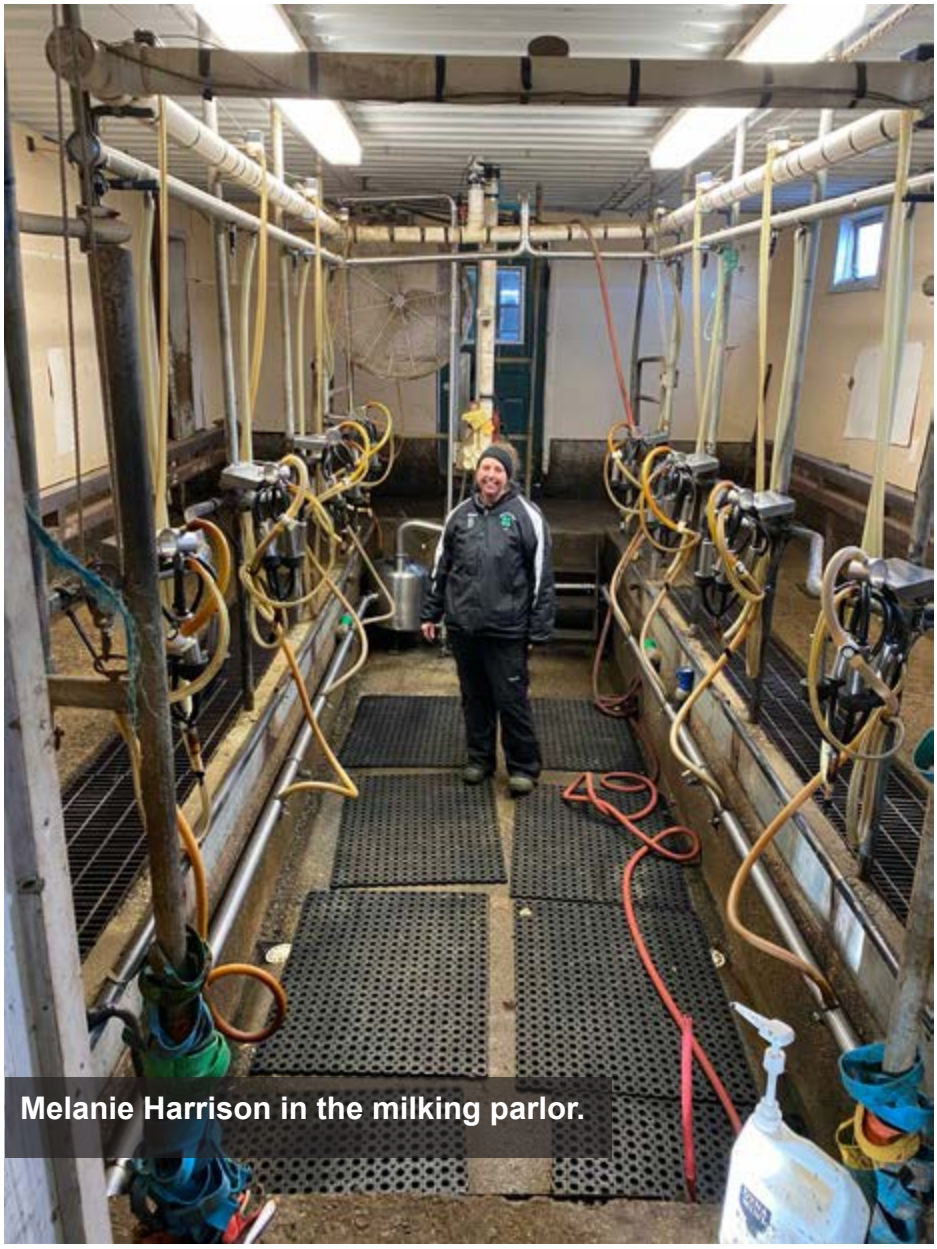
Moving the Holstein herd from Pennsylvania to Vermont meant coping with different regulations, becoming accustomed to new soils, and working with a shorter growing season. Complicating matters, they found that the land on their new Vermont farm was not very fertile, having been neglected for years.

The original 85 acre farm they purchased in Vermont has been expanded, and they now own 450 acres and rent another 450 acres, keeping the milking herd, which now consists of 190 Jersey cows, along with the 70 replacement calves they raise each year, happily grazing. Three hundred of the dairy's 700 tillable acres are dedicated to pasture, with another 400 acres of perennial grasses and legumes set aside for making hay, haylage and balage.

The Harrisons began transitioning the land to organic in 2009. In 2011, 233 acres of adjacent certified land became available, and they purchased that as well. The herd transitioned in 2011, and the farm was fully certified in 2012, through Vermont Organic Farmers (VOF).



Melanie Harrison in the milking parlor.

"Instability of the conventional milk price was a major driver to do something different, A reasonably stable milk market, compared to conventional, has given us the confidence to make improvements that will help safeguard the viability of our farm," Melanie said "We were inspired by visits with other organic farmers in our area to go that route, and we're glad we did."

The farm employs eight part-time young adults, primarily from the 4-H group with which Mel is involved. One employee is scheduled in the morning, and two in the afternoon to assist with milking. The closed herd, milked twice per day, averages 190,000 SCC, 5.13 percent milk fat and 3.68 percent protein, while other solids average 4.61 percent. Their DHI rolling herd average is 14,252 pounds of milk annually.

Improving Infrastructure

But the dairy didn't get to those numbers without a lot of improvements.

In addition to working to restore the land, the couple also had to improve the barn before moving their herd from Pennsylvania to Vermont. The existing freestall barn had been used to house heifers and calves, and needed renovations to accommodate the milking herd. They re-oriented the stalls and alleys to run lengthway down the barn, and removed a warming room, creating room for 100 head to reside in Holstein-sized stalls, bedded with mattresses and saw dust. They also provided access

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FEATURED FARM

HARRISON'S HOMEGROWN ORGANIC DAIRY FARM
ADDISON, VT

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to the feed bunk from both sides, and solid walls were replaced with curtains to enhance ventilation.

In 2015, they were back renovating again, adding another 50 stalls and improving the ridge vent over the length of the entire structure. A covered walkway to the double 4 herringbone milking parlor eliminated runoff, and decreased labor as they no longer needed to plow snow to get the cows to the parlor in winter. An added benefit was reduced risk of frostbite and chapped teats as the cows were now protected from the harsh winter winds funneled between the barns. Neck rails were adjusted as the herd transitioned from Holstein to Jersey genetics, and a second manure push off into the pit was added, allowing a skid loader to easily scrape the alleys into the manure pit twice per day at milking. Granular lime is applied to the concrete floors afterward to improve traction.

The calves, too, got a new management plan upon the move to Vermont. Previously raised in outdoor hutches - although they had also tried group pens with mob feeders, as well as tying calves in the barn - they opted to transition away from hutches, which would have meant additional infrastructure to capture runoff due to Vermont's strict environmental regulations. They converted an old tie-stall barn into a bedded pack for calves and nurse cows instead.

Heifers have their own drive-through bedded pack barn built in 2017. Both groups are on pasture all day in the summer, and housed in the winter with winter access to a cement barnyard that was built with NRCS EQIP cost-share funding in 2018.

The bedded pack barns utilize lower quality hay. They are bedded daily, using a bale chopper in the heifer barn, but done by hand in the lower-ceiling calf barn, where the young calves are housed. The heifer barn also has a scrape alley along the feed bunk, which is scraped daily via skid loader. The bedded packs are fully cleaned out once per year in the heifer barn, and monthly in the calf barn. The material is allowed to further compost outside before being spread on the fields.

Drive thru feeding in the new bedded pack heifer barn.

FEATURED FARM

Liquid manure from the freestall barn is applied, using a dragline, to fields to reduce compaction. They take soil tests and follow a nutrient management plan, so fields receive the fertility they need, at the right time.

Forage Management

"Cows are moved to fresh pasture day and night, with heifers and sometimes dry cows, used as a follower group," Pat said. "Heifer moves on rented land are usually every other day."

Most fields have now been restored to good perennial swards on the home farm. Once a good stand has been established, they overseed with clover every several years, using frost seeding or a no-till drill. The grasses have persisted on their own, so the seeding is primarily to retain the clover in the forage mix.

"Most of our land was 'organic by neglect' when we acquired it, having been farmed for years without sufficient inputs to maintain fertility, and many of the swards were dominated by poor yielding, low palatability fine fescue and high alkaloid reed canary grass," Pat explained. "In the beginning, we tried to improve the species composition organically without major tillage but found the most success with plowing to destroy undesirable species, ditching and land leveling to improve surface drainage, targeted tiling to improve subsurface drainage of problem areas, importing additional manure to build fertility, and growing an annual forage crop/cover crop or mix as a break crop before seeding back down to a base perennial mix of red and white clover, orchard grass, timothy, and low alkaloid reed canary grass."

When annuals are used as a break crop to eliminate the fields of fine fescue and build soil health, they will also then use the crop for forage. They've experimented with buckwheat, silage and grazing corn, sorghum-Sudan grass, cereal rye, peas, oats, brassicas, annual clovers and diverse cover crop mixes.

They don't routinely plant annual forages just for grazing due to the issues they've had with stand establishment. In addition, fields slated for renovation have often been plowed, but ultimately had to be left fallow longer than anticipated due to drought or excessive moisture, and then required multiple

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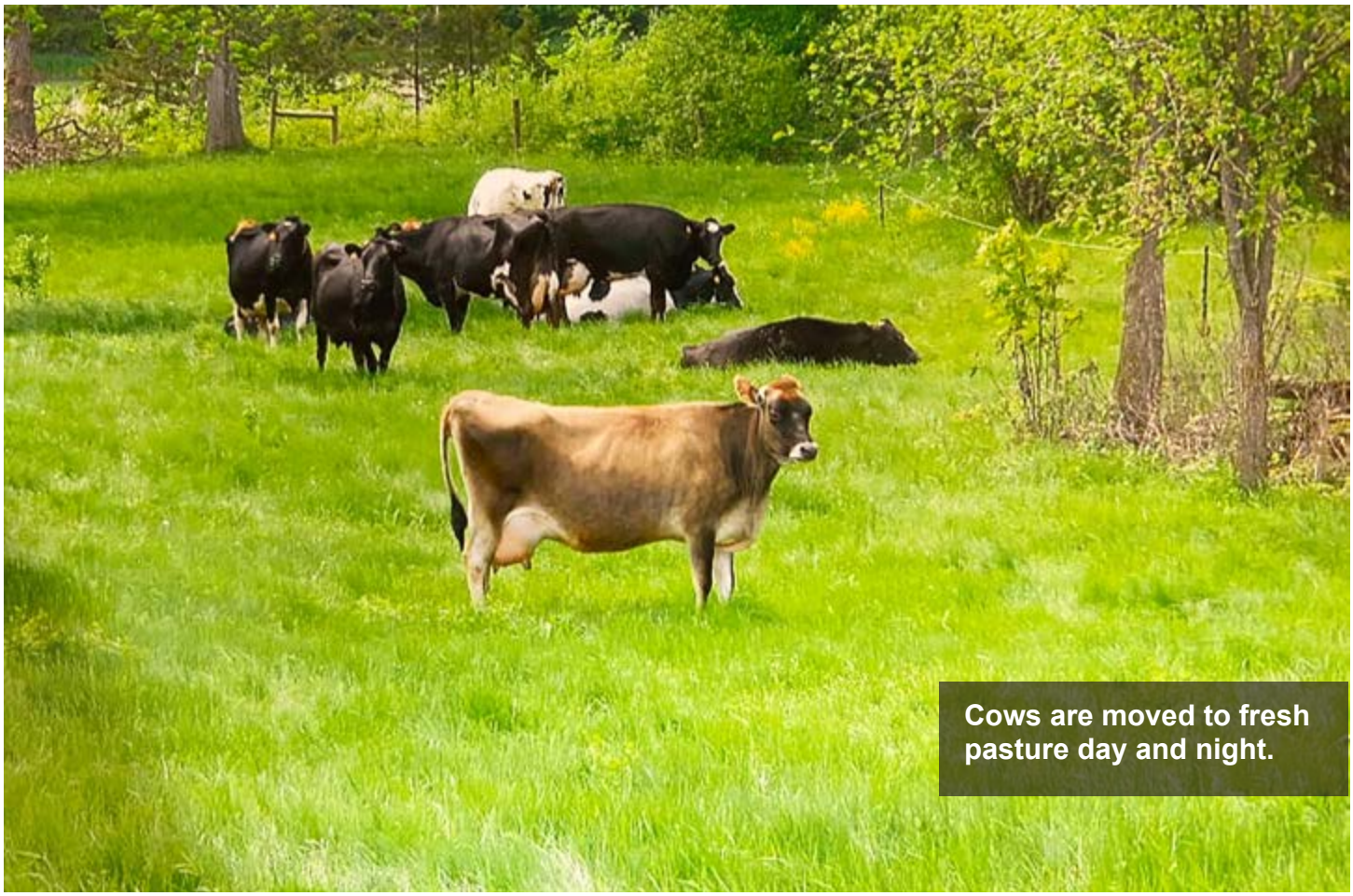

Cows are moved to fresh pasture day and night.

FEATURED FARM

HARRISON'S HOMEGROWN ORGANIC DAIRY FARM
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seedings to generate a lush perennial stand. That didn't work well, so routine use of annual crops is avoided.

"We seem to have a great deal of variability in weather from month-to-month and year-to-year, so have tried to plant diverse mixes that will build a resilient forage base that can be productive across extremes of climate and soil conditions present here and hopefully persist long term," Melanie said. "Timing can be very tricky as we rely on custom operators to do all our field work, so focusing on cutting hay and spreading manure when conditions are good take priority."

The soils are heavy clay, and prone to compaction and ponding in low lying areas. Root growth is limited due to seasonal high water tables which are at six inches on much of the farm's land. The land also is located in the rain shadow of the Adirondack Mountains, so summer droughts are normal occurrences. Depending on specific field characteristics, birdsfoot trefoil, meadow fescue, festulolium, Alsike clover, brome grass, alfalfa and chicory may also be seeded.

Grazing Plan

They have experimented with different post-grazing residual forage heights, in an effort to promote clover retention. To assist with keeping grass growing during the summer slump, they were able to obtain a grant to purchase a traveling gun irrigation system. This allows them to spread leachate water, collected from the bunker silos, to enhance fertility on perennial fields.

"We try to never short the milking cows on grass," Mel said. "Heifers can utilize the leftover, less-palatable forage as a follower group to achieve our targeted post-grazing residual heights. Since cow numbers fluctuate greatly due to our split seasonal calving, we estimate paddock size by eye and adjust based on cow behavior and rumen fill."

If cows are lying down ruminating, instead of running to the barn, they've filled their rumens via grazing. There is always some feed available in the barn during milking, and feeder wagons are used to provide supplemental feed on pasture when grass is limited. They've experimented with bale grazing the dry cows, unrolling the bales on pasture, but they've found the cows prefer to lie down on the feed, rather than eat it.

The cows receive approximately 50 percent of their dry matter intake (DMI) from pasture when in-season grazing, which typically occurs May 1st through October, with an extension into November if the ground stays dry or is frozen. When needed, pasture forages are supplemented with corn meal. The cows typically consume a total mixed ration (TMR) of 15 pounds of grain and 20 pounds of haylage during the grazing season, which increases to 20 pounds of grain and 85 pounds of haylage in winter.

"We purchase corn meal by the tractor trailer load and a protein/mineral mix through Morrisons," Pat said. "This allows us to adjust the ration as needed to meet energy and protein requirements as the forages change from field to field or by stage of growth or lactation. Mike Thresher, nutritionist from Morrison's Custom Feeds, formulates rations based on routine forage samples and we adjust based on manure consistency and animal performance."

Grazing is done in groups, with the heifers following the milking herd through the paddocks. Paddocks are fenced with polywire and step-in posts, with portable solar fencers, so adjusting paddock size isn't too labor-intensive. Most of the farm has high tensile perimeter fences, and several streams that cross the farm have been enrolled in CREP, so have designated stream crossings and high tensile fences to exclude livestock along the riparian buffers.

Breeding and Calving

"We began breeding our Holstein heifers to Jersey sires, primarily for calving ease, in 2004, and liked the crosses so much that we began breeding the whole herd to Jersey in 2009," Melanie said. "The Jerseys have an advantage in calving ease due to their smaller size, as well as hard, black hooves that seem to be more trouble-free. Joint problems and injuries are few and far between due to their compact nature. Reproductive efficiency is higher since they tend to have fewer dystocias and show strong estrous cycles."

Melanie, who once was a Genex technician, breeds exclusively via artificial insemination (AI). The criteria they select for are: health and fertility; above-average components; functional udders; and sound feet. They also began breeding some cows - the ones they didn't plan to use for breeding replacement heifers - to Limousin genetics a few years ago. They maintain pedigrees on all of their cattle, but are not registered.

"We calve spring and fall, so we usually raise the first 30 or 40 heifers born in May or June, and September or October," she said. "Additional calves are sold conventionally. We have been able to earn a little more for the beef cross calves than the Jerseys."

About 25 extra heifer calves are sold each year. Most are from the larger fall calving group. They don't have the space to raise

FEATURED FARM

Nurse cows and calves on bedded pack in the converted stanchion barn.

every calf, nor a need for each calf, and don't have a market for selling older organic heifers. Breeding to beef has allowed them to secure a market that they feel will be more reliable than that for Jersey bull calves.

The calves are raised on nurse cows for up to a year, with weaning beginning at six to eight months old. Typically there are three calves to each nurse cow. The nurse cow system requires less labor - no hauling milk, water, grain and bedding to each calf in an individual pen or hutch- then other calf rearing systems they've tried. They've seen a reduction in calf scours, pneumonia and coccidiosis since converting to the nurse cow system. Other advantages, such as staying under their milk production quota, alleviating crowding in the free stall barn and reducing herd milking time can also be attributed to using nurse cows.

Fall calving is preferred and makes up 60% of the herd, as it primarily takes place on pasture. This eliminates the need for a big feed transition, as occurs with spring calving, which begins prior to pasture grazing season. When spring calving the remaining 40% of the herd, they make a temporary bedded pack on the outdoor concrete barnyard if calving begins prior to the return to pasture.

Spring calving requires moving the cows onto fresh grass when potassium levels are at their peak in the forage, and can lead to issues with milk fever. Ketosis can occur during bouts of cloudy, wet weather when sugar concentration in the grass declines.

They feed apple cider vinegar to dry cows in the spring calving group to reduce the risk of milk fever, give calcium boluses to third lactation and older cows at calving, and milk ketotic cows only once a day for a few days until they improve.

Spring calves are moved to pasture at about two weeks of age, while fall calving is on pasture, with a move into the bedded pack barn for the winter months. Spring calving does allow for less bedding expense and less labor compared to having to house the fall-born calves all winter in the bedded pack barn. It also allows for tourists to stop and take photographs of the calves frolicking on the pastures.

"I believe that the robust microbiome of a calf raised directly on a cow contributes significantly to their overall health and wellbeing," Melanie said. "Nurse cows are chosen based on willingness to accept the calves, with higher somatic cell count cows and cows difficult to milk in the parlor due to udder

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conformation, temperament or poor let-down prioritized as a last chance to be productive prior to culling."

Cows with mobility issues also are selected as nurse cows, as the calves are in the bedded pack barn and remain on pasture continually in season.

At birth, calves are given a First Defense bolus, are navel dipped with iodine, and a minimum of three liters of pasteurized colostrum is fed.

Portable corral panels are used to make individual pens for newborn calves in the bedded pack barn, where they bond with their nurse cows for the first week or two. Milk cow TMR is made available free choice. They then combine groups gradually, ultimately having a mob of all the calves, born within a two-month window, plus the dozen or so nurse cows who stay with the calves at all times for a minimum of six months.

"This avoids the social stress of being alone, then suddenly having to learn how to interact with others at weaning. Weaning is the hardest part of this system, not on the calves, but for the cows who must readjust to either twice a day milking in the parlor or dry off away from the calves," Mel said.

At weaning, the nurse cows are separated off with a fence line from the calves for short time periods that are gradually extended. The calves don't fuss much, and the cows tend to dictate when they want to be returned to the mob pen. If it's grazing season, the entire calf group plus their nurse cows are put out on pasture together, with access back to the barn for their TMR, and for shade. They also have made a creep feeding area, to feed additional starter to the calves during rapid growth periods.

"By utilizing nurse cows and weaning later, we have allowed our calves to rapidly grow to their genetic potential while learning how to navigate in a herd setting," Mel said.

Animal Health

Calves are vaccinated with Inforce 3 at the time of dehorning. The entire herd receives rabies shots annually, and the milking

Harrison's cows on spring pasture.

FEATURED FARM

herd is given a killed 10-way vaccine every six months. Dry cows receive Endovac or J-vac, and heifers receive the 10-way vaccine prior to breeding. Dry cows have free choice dry cow minerals and milkers have kelp, salt and bicarb available in the barn.

Cow health has improved since eliminating Holstein genetics, adapting the herd to grazing, maximizing nutrition and decreasing stress. Ideally, the herd veterinarian is primarily used for dehorning, and the occasional calving issue or mystifying illness.

Cow health has not been an issue since converting the herd to organic, however fresh cow mastitis as well as higher somatic cell counts are more common without the use of a teat sealant at dry off. When needed, they rely on both homeopathic and herbal remedies. Some of the go-to remedies include probiotics, garlic tinctures, aspirin, Holistec 911 paste, injectable vitamins, and intravenous fluids.

Going Organic

The biggest challenge with organic dairy farming is the ability to source high-quality organic forages economically, Pat said. Improving the land to support the high-quality pasture and hay they need to keep the herd healthy and productive is a slow process, has required a lot of trial and error, and a serious dedication to the process.

They'd encourage other dairy farmers who are certified organic, or who are thinking of becoming certified, to take advantage of the Extension services, neighboring organic farmers, NRCS resources, and resources from Organic Valley or other milk cooperatives. They believe that organic farmers, bonding together to advocate for a national supply management system, and lobbying for enforcement of regulations such as the Origin of Livestock rules, is imperative to keep small organic dairy farms competitive and thriving, and to safeguard the integrity of the USDA Certified Organic label.

"The community of organic farmers and service providers has been immensely helpful and encouraging," Pat and Mel said. "There are no sure things, so adaptability and creativity, keen observation and a willingness to try new things and learn along the way has served us well." ◆

Melanie and Patrick Harrison, Harrison's Homegrown, 8180 Route 22A Addison, Vermont 05491, can be reached at ptpatrick@gmavt.net.

ORGANIC PRODUCTION

The Organic Economic Advantage

By Dale M. Johnson, University of Maryland Extension

These are difficult times for dairy farmers. Milk supply outpaces demand resulting in stagnant milk prices. Costs are increasing. Large dairy farms are driving smaller dairy farms out of business. Farmers are receiving termination letters from their processors/co-ops. Discouragement is understandable.

However, organic dairy farmers who have a solid market for their milk are faring better than non-organic dairy farms. A comparison of 7 Maryland/Pennsylvania organic dairy farms to 18 non-organic MD/PA dairy farms for the years 2018-2020 reveals that those organic farms are making more than twice as much per cow per year ($852/cow) compared to the non-organic farms ($425/cow). Total income per cow is lower for the organic farms but expenses are also much lower resulting in the profit advantage. Every expense category is lower per cow for the organic farms.

A disadvantage for organic dairy farms is that milk production level per cow is less than half (90 cwt/cow) of the milk production level for non-organic dairy farms (207 cwt/cow). This disadvantage is partially offset by higher prices for organic milk ($33.80/cwt) compared to non-organic milk ($17.46/cwt)

It is useful to compare the expenses per cwt as organic farms have both advantages and disadvantages. A big disadvantage of organic farms is the cost of purchased feed per cwt ($10.40) compared to non-organic farms ($5.81). Organic forages and concentrates are expensive and organic farms should make every effort to maximize feed production on their pastures and cropped land to avoid high priced purchased organic feed.

On a net profit per farm basis, the organic farms had a much higher average of $75,777 in comparison to the non-organic farms that averaged $56,809. This is a huge advantage to the organic farms.

How does your organic farm compare to average of these 7 organic farms? It is useful to compare your farm line by line to these averages. Income categories that are more than 20% higher or expense categories that are more than 20% lower indicate strengths in your operation. Conversely, income categories that are more than 20% lower or expense categories that are more than 20% higher indicate weaknesses in your business and this is where you should focus your management and efforts.

If you would like to participate in this analysis to get a good financial summary and comparison for your farm, contact Dale Johnson at or 301-432-2767x325 or dmj@umd.edu. Dale personally visits Maryland and Pennsylvania farms but will do other farms through electronic communication. Your tax forms and some production records is all that it needed. This is an educational program and service of the University of Maryland Extension. ◆

2018-2020 Annual Average Income, Expenses, and Profit per COW

	Organic 7 farms	Non-organic 18 Farms
Average number of cows	86	134
CWT of milk sold per cow	90	207
Farm income		
Milk sales	3,038	3,617
Cattle sales	320	255
Other income	370	781
Total income	3,728	4,653
Farm expenses		
Feed purchased	935	1,204
Seed, fertilizer, chemicals	182	449
Depreciation and repairs	575	657
Labor	56	175
Medical and breeding	46	191
Car, Truck, Fuel, Hauling	206	397
Rent	146	209
Interest	99	156
Custom hire	170	274
Other expenses	434	517
Total Expenses	2,848	4,228
Profit per COW	852	425

2018-2020 Annual Average Income, Expenses, and Profit per CWT

	Organic 7 farms	Non-organic 18 Farms
Average number of cows	86	134
CWT of milk sold per cow	90	207
Farm income		
Milk sales (price of milk)	33.80	17.46
Cattle sales	3.56	1.23
Other income	4.12	3.77
Total income	41.48	22.46
Farm expenses		
Feed purchased	10.40	5.81
Seed, fertilizer, chemicals	2.02	2.17
Depreciation and repairs	6.40	3.17
Labor	0.62	0.84
Medical and breeding	0.51	0.92
Car, Truck, Fuel, Hauling	2.29	1.92
Rent	1.62	1.01
Interest	1.10	0.75
Custom hire	1.90	1.32
Other expenses	4.83	2.49
Total Expenses	31.69	20.41
Profit per CWT	9.79	2.05
Net profit per farm	75,777	56,809

NET UPDATE

Recent ODairy Discussions

By Liz Bawden, Organic Dairy Farmer, NODPA Co-President

A cow was four days fresh after calving out twins; she acts "tired and slow", has a fluctuating low grade fever, and isn't eating as much as she should. Two vets agreed that it sounded like a retained placenta and the general symptoms that go with it. It was recommended to put in 4 iodine pills at around day 3 to 7, pull out remaining cleaning at day 5 (longer if it was twins or a hard calving). If it has progressed to metritis, the following protocol was suggested: infuse one liter of 50% dextrose once a day for three days. If the cow is off-feed, administer a bottle of Hypertonic Saline IV with a bottle of Vitamin C. B vitamins are good appetite stimulators; and be sure to test for ketosis. It was also suggested to give garlic tincture in a bottle of Dextrose IV (or garlic cloves in a gel capsule), Bovi-calc bolus and/or IV CMPK. Another vet offered his protocol for metritis: Mix 1 part 7% iodine in 10 parts Dextrose, infuse 90 ml of the solution twice weekly.

Who suspects that your clean microfiber dairy towels would be a big source of bacteria? One farm purchased brand new microfiber towels. The towels were quite bulky and were holding onto some debris after laundering so the amount of chlorinated detergent was doubled. Then the farm sent a towel sample to Quality Milk Production Services and the culture result was almost 53,000 CFU of bacteria so 32% hydrogen peroxide was then added as an additional sanitizer. Another microfiber towel was sent for culture and the count was 9111 CFU—still too high. About half of the new microfiber towels were replaced with the farm's older ,more worn microfiber and cotton towels. With the wash protocol left the same, the culture results on the washed towels showed lowered bacteria for the new microfiber towels (2109) but considerably more reduction for the worn microfiber towels (287 DFU) and even less CFUs for the cotton towels (133). The farm then bought new 100% cotton terry towels, keeping the wash protocol the same. With only cotton terry towels run through the washer, the culture results came back ZERO. ◆

Subscribing to ODairy:

ODairy is a FREE, vibrant listserv for organic dairy farmers, educators and industry representatives who actively participate with questions, advice, shared stories, and discussions of issues critical to the organic dairy industry.

To sign up for the ODairy listserv, go to:

www.nodpa.com/list_serv.shtml

Classified Ads

ANIMALS

FOR SALE: Stone House Farm Dispersing Registered Guernsey herd: 37 cows and 27 heifers. Certified organic and certified 100% grassfed milk program. Most cows A2/A2 tested. Currently milking once-a-day. Jay, Hudson, NY (509)-322-3267 jay@stonehousegrain.com

Location: Hudson, NY

FEED, GRAIN, HAY FOR SALE / WANTED TO BUY

FOR SALE: NOFA-NY Certified Organic BALEAGE (Mixed grass and Alfalfa - 1st, 2nd, & 3rd cut) 4 x 4 Round bales. Also DRY HAY (Mixed grass - varying quality - 1st cut) 4 x 4 1/2 round bales. Contact Jeff @ Mitchell Farm 607-566-8477 or Mitchellorganics@hotmail.com

Location: Avoca, NY-Steuben County

FOR SALE: Organic certified alfalfa wrapped round bales, dry round bales stored inside, and grass baleage round bales. Call or text Scott Poirier at 518-651-9354

Location: North Bangor, New York

FOR SALE: Good supply of Organic early-cut grass hay, 4 by 5, Dry and Silage bales. Prices from $30-$55. Contact David Miller 570-247-2596.

Location: Rome, PA

FOR SALE: Certified Organic Barley/Oat/Pea baleage mix. Was mowed 63 days after planting. Round baled (4x4 roto processed) with netting and in-line wrapped the day after it was mowed. Field produced an average of 6.75 bales per acre. Also have 1st cutting baleage available. Call to discuss. Nathan Seamon, 315-868-7981, nate@precisionsportsgrp.com

Location: Richfield Springs, NY

FOR SALE: Dry hay 4x4 bales. First cutting , baled before June 9th. Individually wrapped 4x4 Baleage 1st, 2nd, and 3rd cutting. Call Bill Plouse at 570-423-5146,dmplouse94@gmail.com

Location: Gillett, PA

FOR SALE: Organic grass baleage individually wrapped. May & June first cutting and second cut. $55 per 4X4 round bale at farm and some lower quality available at reduced price. Delivery available in NYS. NOFA-NY Certified Organic, LLC. Contact Carl Crispell, 607-275-1647, cac22@cornell.edu

Location: Brooktondale, NY

FOR SALE: Certified Organic round bales $65.00. First cut square bales $5.00. Second Cut square bales $6.00. Email badorfarmvt@gmail.com for details or leave a message with Angela 802-279-7546

Location: Williamstown Vermont

FOR SALE: 2ND cut organic baleage, $55.00/bale at the farm; 1st & 2nd cut square bales, call for price. Tom Perrin, 716-913-1864.

Location: South Wales, NY

EQUIPMENT

FOR SALE: Valmetal Master Bale Grinder selling for $6,500. Call Richard Corey, 207-577-4952 or email: richardcorey207@gmail.com

Location: East Wilton, Maine

EMPLOYMENT OPPORTUNITIES

HELP WANTED: DAIRY FARM WORKER Stonewall Farm, a non-profit agricultural education center is seeking a dairy farm worker to work full-time in its organic dairy operation. Responsibilities include daily, milkings, managing grazing systems, cleaning barn, feed herd, caring for the herd, herding animals to paddocks during grazing season, cleaning and operating milking equipment and tractors. This is a benefited position and pay is commensurate with experience. On-site rental housing is available. Contact Julie Davenson at jdavenson@stonewallfarm.org, 603-357-7278.

Location: Keene, NH

SERVICES/PUBLICATIONS

Serious about managed grazing? Check out Graze magazine, which is 'by graziers, for graziers'. Articles by and about real farmers. Visit https://www.grazeonline.com to view a sample issue and to order a subscription or back issues. Call 608-455-3311 for more information.

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The Annual NODPA Fund Drive is Underway!

Your support is especially important this year, so please remember to send in your membership donations or visit the NODPA membership page on our website: https://nodpa.com/index.cfm?p=x.5

For more information, email Nora Owens, noraowens@comcast.net or call NODPA at 413-772-0444.