

Hired labor on New York State dairy farms: Cost, efficiency and change from 2011 through 2020 *by Jason Karszes and Christopher Wolf, PRO-Dairy*

Jason Karszes, PRO-DAIRY, and Christopher Wolf, Charles H. Dyson School of Applied Economics & Management, have released a new publication that summarizes cost, efficiency and changes associated with hired labor on NY dairy farms from 2011 to 2021. As average dairy farm size grows in New York, reliance on hired labor increases and the cost associated with the hired workforce is a significant expense. For most farms participating in the Dairy Farm Business Summary and Analysis Project (DFBS), hired labor is the second largest expense category after purchased grain and concentrates. With farms participating in the DFBS project for multiple years, an analysis of costs and efficiencies associated with hired labor and how they have changed over the last 10 years was recently summarized. Below are selected highlights from the [2021 hired labor publication](#):

- Average herd size grew between 2.9% to 6.8% a year
- Hired worker equivalents increased between 2.0% to 8.3% a year. One hired worker equivalent equals 2,760 hours of labor a year.
- Total payroll expenses for the year more than doubled



over the timeframe, reflecting an increase in the amount of hired labor along with increases in labor costs per hour. The total payroll costs increased on average 7.5% a year.

- The cost per hour increased on average 3.5% a year, from \$12.92 per hour in 2010 to \$17.34 per hour in 2020, or a 34.2% increase from 2010 to 2020.
- The rate of change in hired labor costs per hour from one year to the next is accelerating, with increases over 5% occurring twice in the last 4 years.
- Labor efficiency as measured by milk sold per worker equivalent increased 0.5% a year for 2011 through 2015. From 2016 to 2020, milk sold per worker equivalent increased by 3.4% a year on average.
- Labor costs per hundredweight of milk sold increased from \$2.66 to \$3.08, an increase of 15.8% over 10 years. The percent increase in labor costs per hundredweight of milk sold is less than the increase in cost per hour in hired labor, reflecting management changes undertaken by the farms over the timeframe to increase labor efficiency.

If labor efficiency had not improved, cost per hundredweight would have increased to \$3.62.

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The **South Central New York Dairy and Field Crops Program** is a Cornell Cooperative Extension partnership between Cornell University and the CCE Associations in 6 Counties.



Cornell Cooperative Extension

South Central NY Dairy and Field Crops Program

We are pleased to provide you with this information as part of the Cooperative Extension Dairy and Field Crops Program serving Broome, Cortland, Chemung, Onondaga, Tioga and Tompkins Counties. **Anytime we may be of assistance to you, please do not hesitate to call.** Visit our website: <http://scnydfc.cce.cornell.edu> and find us on social media! Facebook, YouTube, & Twitter!

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New York Communities

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Healthy, Hardy Heifers!



A virtual series for managing heifers post-weaning to calving



Join the CCE Regional Specialists for a series on heifer management topics from post-weaning to calving! This series will be offered via Zoom every Friday through November 19th at 12:00pm EST. Sessions will be ~30 - 45 minutes in length, with a question period at the end.

Fridays at 12:00-12:45pm EST

Remaining Sessions...

November 5 – Bred Heifers

Dr. Tom Tylutki, AMTS

November 12 –

Pre-calving Nutrition

Dr. Mike van Amburgh, Cornell

**November 19 – Pre-calving Comfort
and Facilities**

Dr. Katy Proudfoot, UPEI

**This program is offered at NO COST thanks
to our generous sponsors!**

Sessions are recorded and shared with registrants via Box.

Registration:

<https://scnydfc.cce.cornell.edu/event.php?id=1656>

Registration help/questions, please contact:
Donette Griffith, dg576@cornell.edu

Cornell Cooperative Extension

FARMER 2021 TAX \$CHOOL

An educational series from Cornell Cooperative Extension Farm Business Specialists offering courses designed to inform and empower farm managers to better understand their tax obligations, management strategies, and improve farm profitability.

COST: Each course has its own fee. See below for more information regarding our program scholarships

REGISTRATION: Register online by visiting tinyurl.com/ccetaxschool. This is REQUIRED three business days in advance of the workshop. You can register for one, some of, or all courses. Following your registration, you will receive a confirmation email and an invitation to complete a pre-course survey. This survey will help our instructors tailor the topics covered in each course.

Farm Financial Records for Decision Making & Tax Management

Thursday, December 2nd @ 7pm - 9pm

\$10/farm

A primer for beginning farmers, or a tune-up for those already in production, on recording income and annual expenses, capital expenditures and depreciation with additional information covering loans & credit card or revolving loan payments, sales of business assets, and deducting losses.

Tax Management for Beginning and Small Farm Businesses

Tuesday, January 18th @ 7pm - 9pm

\$10/farm

A one-night virtual meeting for beginning and part-time farmers that provides useful tax information enabling participants to be make better tax decisions for their business. Federal and state income taxes will be covered. Tax regulations specific to NYS will be covered as well.

Farm Specific Tax Code Benefits

Tuesday, January 25th @ 7pm - 8:30pm

\$5/farm

For farm businesses of all shapes and sizes, tune in to learn more about the tax advantages available for farms. This workshop will include information for the current tax season.

CAN'T MAKE IT LIVE? Sign up any and we'll send you a recording following the workshop.

IS THIS FOR ME? This series has options for agricultural producers of all shapes, sizes, and time in business.

LEARN MORE, VISIT US: <http://tinyurl.com/ccetaxschool>

Positive Feedback and Appreciation Support Employee Retention

by Dr. Bob Milligan, First printed in Learning Edge / Sept 2021 <https://conta.cc/3pW5Hmc>

Approximately two thirds of employees who voluntarily leave a job leave their supervisor rather than leaving the business. In this time of hiring impossibility, retention is even more crucial than ever. The greatest key to retention is a great supervisor contributing to a productive, developing, engaged employee.

Perhaps, the greatest opportunity to improve the supervisory relationship is with quality positive feedback and expressions of appreciation. These two are complementary but different tools. Positive feedback is primarily focused on job performance. Appreciation is focused on affirming the value of the person.

The life experiences and interest of most of the readers of this newsletter revolve around improving animal and crop performance, not supervising people. This results in at least three hurdles to overcome to routinely provide quality positive feedback and express appreciation.

1. Animals and crops do not respond to either positive feedback or appreciation; therefore neither are typically included as part of the managers' job. Seeing their value and establishing them as a priority is difficult.
2. These two tools require more emotional expression than do working with animals and crops. Expressing emotions is difficult at best and scary to many.
3. Like all skills, competence in providing quality positive feedback and expressions of appreciation requires learning and practice.

Below we address each with the goal of overcoming all three hurdles by recognizing the value of quality positive feedback and expressions of appreciation and increasing competence in providing both.

Quality Positive Feedback

Quality positive feedback is motivating and engaging to employees as it shows you care about the job they are doing and are taking the time to observe and recognize their successes. It also serves to increase self-confidence and thus task performance. Like everything else, positive feedback is best when it is delivered well. The following are four critical attributes of **quality positive feedback**:

- **Specific:** Too often positive feedback sounds like "you are doing a great job." or "great work." Unfortunately, the

employee does not know what he or she did that is being complemented. All feedback, including positive must be specific. Examples: "I really appreciate your noticing and checking on the animal that was lying down too long" or "Thank you for your continuing vigilance that the loads going into storage meet all of our quality criteria."

- **Timely.** "Do not pass GO, do not collect \$500, provide the positive feedback immediately. Positive feedback does not store well; the value will be largely depleted by the time of the next annual performance review (not that I am an advocate of traditional annual performance reviews).
- **Genuine.** You must mean what you say and show that you genuinely appreciate the great work that the employee is doing. Genuine is an important component of the connection psychological need we have discussed in this newsletter. The employee must see that you value their contributions as a person not just as an employee.
- **Appropriate.** Don Shula (football coach) stated in Everyone's a COACH "Good performance should always be treated differently than poor performance." This sounds obvious, but is not always followed. Positive feedback should only be given for positive behaviors or outcomes. If the expectation was not met, redirection or negative feedback are needed. Here, positive feedback is reserved for effort or improvement.

Everyone of you is a great problem solver when it comes to animals and crops. You succeed by carefully observing your animals and crops looking for problems to prevent or stop. You need to use those same skills in observation with people. With people, however, you are also looking for specific positive outcomes to use for quality positive feedback.

Appreciation

Appreciation is a great complement to positive feedback. Appreciation is focused on affirming the value of the person. Appreciation is directed toward what is good for the person as well as for the farm/organization. Appreciation is focused on the emotional wellbeing of the person and their attachment to the farm as well as the person's performance and behavior.

Why are expressions of appreciation needed or desired?

Research has shown that the greatest deterrent to employee engagement is FEELING unappreciated. Research conducted by the U.S. Department of Labor reported that 64% of Americans leaving a job do so at least partially because they do not feel appreciated.

Showing authentic appreciation is more than saying “thank you.” In fact, there are many types of appreciation. The most used types are:

- Words of affirmation: we use words to communicate positive messages to partners, employees, coworkers, family members, and friends. Words of appreciation include praise for accomplishments, affirmation of character, and praise for personality. Affirmation may be personal - one-on-one – or public in front of others or in a more formal setting. Keep in mind, though, that research shows that 40-50% of us do not want recognition in front of a large group.
- Quality time: we show others they are valued by giving them our most valued resource – time. Quality time is more than just being or working together. Quality time includes focused attention, quality conversation, shared expression with colleagues, working collegially on a task, and small group dialogue.
- Acts of service: you pitch in and help others get things done. The focus here is “Don’t tell me your care; show me.” You are answering the often-unspoken request: “What I could really use is a little help.”
- Tangible rewards: they can be anything from a gift card to tickets to time off. Although tangible gifts are the most common form of appreciation in many farms, businesses, and organizations; an excellent research study found that only 6% of all employees had tangible gifts as their preferred form of appreciation. Tangible gifts are poor substitutes for heartfelt appreciation.

A final thought: **The expression of appreciation and providing of quality positive feedback are wonderfully complementary.** Use them early and often!!!

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First published in Dr. Bob's September 2021 LearningEdge
Monthly newsletter (<https://conta.cc/3pW5Hmc>)



Coaching Tip: Monitor Your Own Behavior in Busy Times

By Dr. Bob Milligan, First printed in Learning Edge / Sept '21

Harvest is upon us! Added to the usual long hours and stress are continuing concerns about the Delta variant, the return of our sons and daughters to the classroom, and the crazy labor market. Monitoring our own emotions and behaviors will reduce our stress and enable us to create clarity and reasonableness for your workforce.

One critical difference between we human beings and tractors, combines, etc. is that each of us is very unique. We are born with certain tendencies and natural reactions. You may well have completed leadership and/or personality profiles to better understand your tendencies and natural reactions.

As we mature, we learn that our natural tendencies, reactions, and behaviors do not always serve us well. We learn to react thoughtfully rather than instinctively. Managers who are naturally very controlling (coercive and authoritative leadership styles) learn that there are times when listening and coaching are more important than their natural reactions. Managers whose instinctive reaction is to lead only or mainly by example (pacesetter leadership style) learn that they first need to teach, coach, and engage their employees.

The challenge is that when we get busy and stressed, we tend to revert to our natural tendencies, reactions, and behaviors – to become more instinctive. A great example is the owner of a business whose natural tendency is to be very analytical and to carefully research and study every decision. When this owner's business faces challenges, the danger is that the owner will isolate himself or herself in the office analyzing every decision and the excessive need for analysis paralyzes the ability to make decisions. He or she has fallen into the trap of over using his or her natural tendencies when under stress.

In busy times make certain you are not falling into this trap of reverting to overusing your natural tendencies, reactions, and behaviors. Two suggestions. First, take the time frequently to reflect back on your interactions with people to determine that you have not fallen into this trap. Second, focus on using our oft discussed listening tactic of pausing a second or two before responding. This will provide the time for a more thoughtful less instinctive response.

Contact Bob at: 651 647-0495 / rmilligan@trsmith.com
First published in Dr. Bob's September 2021 LearningEdge
Monthly newsletter (<https://conta.cc/3pW5Hmc>)

Labor Roadshow V

offered by New York's Ag Workforce Development Council

Learn about regulation changes and how to best position your business for compliance and success



Ag Workforce Development Council is hosting [Labor Roadshow V](https://agworkforce.cals.cornell.edu/labor-roadshow-v/) as a virtual event. A series of six two-hour webinars will be held online through Zoom at noon on November 22 and 23, and December 2, 3, 9 and 10. Cost is \$55 per person to attend all six webinars and to receive links to the webinar recordings and roadshow materials.

New York Labor Road Show V is an opportunity to learn about regulation changes and how to best position your business for compliance and success. Several important changes to state regulations occurred in 2021 that farm employers need to understand, and better employee management is the key to farm success during and after our current farm labor crisis.

Visit <https://agworkforce.cals.cornell.edu/labor-roadshow-v/> to register online now!

NOV 22, 2021 | Noon to 2:00 PM EST

Worker's compensation: How does it work from employer and employee perspectives? With Henry Talmadge, New York Farm Bureau Safety Group, Jan Klodowski, Dairy Farmers of America

Employee handbooks: Getting your handbook in place and in compliance while making it a useful tool to communicate expectations to employees with Richard Stup, Cornell Agricultural Workforce Development

NOV 23, 2021 | Noon to 2:00 PM EST

Labor cost trends, efficiency, and management strategies: How dairy farm labor costs and efficiencies are changing over time and management actions that producers can take to minimize impact of rising labor costs more effectively with Jason Karszes, CALS PRO-DAIRY & Greg McConnell, Farm Credit East

COVID issues for farm employers: Understanding the NY HERO Act and employer requirements and strategies to encourage or require vaccinations with Michael Sciotti, Attorney, Barclay Damon LLP

DEC 2, 2021 | Noon to 2:00 PM EST

NY farm labor law compliance: A review of current New York regulations covering minimum wage, overtime, day-of-rest, and COVID sick leave pay with Melissa Buckley, NYS Department of Labor

Preventing turnover: Real perspectives from active farm managers about what causes employees to leave and how to prevent it with Bob Milligan, Cornell Professor Emeritus and Dairy Strategies, LLC and Panel of managers and employees including: Meghan Hauser, Table Rock Farm, Garrett Miller, Oakwood Dairy, and Bob Ceglowski, Rupert Veterinary Clinic

DEC 3, 2021 | Noon to 2:00 PM EST

Employee housing management: Producer strategies to manage employee housing, enhance housing culture, create

new housing solutions, comply with H-2A requirements, and finance employee housing with Panel of farm managers including: Bill and Corinne Banker, Blue Hill Farms, Jeremy Bergen, Bergen Farms, and Lisa Neal, Merrel Dairy and Financiers: Mike Haycook, Farm Credit East, and an update from NYS Department of Agriculture and Markets

Employee wellness programs: Why are these programs emerging and how can producers make them positive for their farm and for the industry? Panel of farm managers and industry experts including Jaime Padilla, Fair Trade USA, David Darr, Dairy Farmers of America, and Nicole Ayache, National Milk Producers Federation-FARM (invited).

DEC 9, 2021 | Noon to 2:00 PM EST

NY farm unions and immigration enforcement: Review and update of employer responsibilities related to farm union organizing and negotiation with John Wirenius, Chair of the NY Public Employment Relations Board and Chris Schulte, Attorney, Smith, Gambrell Russell LLP; Hosted by Alyssa Keally, Northeast Dairy Producers Association

Middle managers' role in creating a great place to work: How middle managers influence the engagement of frontline employees and help keep the business in compliance with workplace laws with Chris Schulte, Attorney, Smith, Gambrell Russell LLP and Panel of farm middle managers

DEC 10, 2021 | Noon to 2:00 PM EST

H-2A for beginners: An introduction to the federal temporary guest worker program for agriculture (H-2A), and the experiences of farm employers who recently started using the program with Mark Martens, Agri Placements International Inc. and a Farm panel of success stories: Maureen Torrey, Torrey Farms, John Mueller, Willow Bend Farm, David Fisher, Maplevue Dairy

Understanding NY paid sick leave and paid family leave: Requirements and strategies for compliance and to make this a positive benefit for employees with Richard Stup, Cornell Agricultural Workforce Development



www.cals.cornell.edu/pro-dairy/events-programs/regional-programs

Cornell Cooperative Extension Transition Cow Tuesdays

Transition Cow Management Webinar Series

Tuesdays from Nov. 2 to Dec. 14, 2021
12:30-1:00pm

These webinars are short and to the point, just 30 minutes. Grab your lunch and join us.

Have you...

...been working with the farm transition cow program but want to know more about the how, what and why?

...wanted to improve the transition cow performance of your herd but need to know where to start?

...wanted to increase the skills you bring to the farm or your farm employer?

...been wondering where you'll find the time to attend a course or workshop?

If so, this webinar series is designed for you.

Dates and Topic

Nov 2 - Transition Cow Nutrition-

This session discusses why the transition diet has a tremendous impact on cow health and milk production, and how to ensure adequate nutrition is supplied at each phase of transition.

Nov 9 - Feeding the Transition

Cow- The mechanics of providing feed in conjunction with transition cow behavior is a crucial aspect in providing adequate nutrition. We'll discuss factors in feeding management during this session.

Nov 16 - Selective Dry Cow

Therapy- Learn how dry cow therapy impacts transition cow management. We will discuss the basics of selective dry cow therapy.

Nov 23 - Facility Considerations-

Housing can make or break a cow's transition period and her next lactation. Both her physical and behavioral needs will be discussed.

Nov 30 - Calving-

Parturition is critical step in transition. This session will discuss the basics of cow behavior, calving assistance, and physiology.

Dec 7 - Post Calving Monitoring-

This session will outline the steps for monitoring cow health post calving.

Dec 14 - Evaluating Transition

Management- This session will cover Dairy Comp items to track and measure success of the transition program.

Presenters:

Tom Overton, PhD, Professor of Dairy Management, Chair of the Department of Animal Science at Cornell University

Daryl Nydam, DVM, Faculty Director, Atkinson Center for Sustainability, Dept of Population Medicine and Diagnostic Sciences, Cornell College of Veterinary Medicine

Rob Lynch, DVM, Cornell PRODAIRY Program

Judy Moody, Agricultural Resource Management Specialist, Dairy One

Margaret Quaassdorff, CCE NWN, Regional Dairy Specialist

David Balbian, CCE CNY Regional Dairy Specialist

Lindsay Ferlito, CCE NNY Regional Dairy Specialist

Casey Havekes, CCE NNY Regional Dairy Specialist

Betsy Hicks, CCE SCNY Regional Dairy Specialist

Register once for access to all webinars.

REGISTER

Register online at:

<https://cals.cornell.edu/transition-cow-tuesdays-webinar-series>



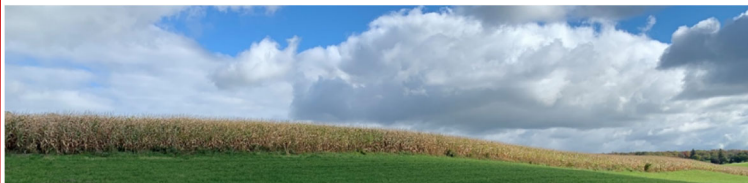
Cornell CALS
College of Agriculture and Life Sciences

Cropping Notes

By Janice Degni—Field Crop Specialist

The cropping season is wrapping up. Unfortunately shlogging through mud was too common for silage harvest. By now corn silage is in storage and final hay harvests are being made. Yields are slightly above average for corn and reported soybean yields are trending above average at 55 bu/ac and higher. Beans did amazingly well in spite of the excessive rainfall.

A warm fall has been beneficial for cover crop planting and establishment since frost has held off through early November.



In late September/early October leaf disease in corn exploded. I suspect the tropical storms that came through back-to-back, starting in mid-August brought the inoculum. A disease that has become more common in the last few years is Northern Corn Leaf Spot. It looks a lot like grey leaf spot but the lesion has a halo around it. Samples of 'blighted' corn that I sent to the lab this fall were identified as Northern Corn leaf spot, also called Carbonum leaf spot and is caused by is caused by the fungus, *Bipolaris zeicola*. I also saw our familiar Northern Corn Leaf Blight. The diseases made the crop look ugly but most of it arrived after the corn crop was made. Corn grain is drying down slowly especially considering the warm temperatures we have had in October. I believe its due to the stress caused by excessive water and the late disease and loss of photosynthetic capacity.

Unfortunately, Tar spot was recently identified in Erie County in NYS. Tar spot has been devastating in the Mid-West this season.



Northern Corn Leaf Spot



Gray Leaf Spot



Northern Corn Leaf Spot



Gray Leaf Spot

John Winchell of Alltech has been monitoring and troubleshooting mycotoxin levels across the state with the new corn crop. He reported that he is seeing elevated levels of T2, zearalenone and

DON or vomitoxin south of the Finger Lakes which includes our region. He believes the early harvested silage should be fine but late harvested corn may have elevated levels. Mycotoxins in high moisture corn is a concern. John reminds us that when fungi begin to produce mycotoxins when they are under stress. A change in the weather to cooler nights and daytime temperatures will trigger stress for fungi and we need to be aware of the potential for elevated mycotoxin levels in our corn crop in particular. For high moisture corn, you may want to switch from a silage inoculant to propionic acid to stop further fungi growth. It is a fall when testing your forage will make sense, particularly if you see any reactions in your herd like going off feed, abortions, immunity challenges, loose manure, sudden milk loss in individual cows, and increased SCC.

John advises, "On the dry corn side of things, it is important with the combination of Indian summer we have had, as well as increased precipitation, we are seeing slower dry down, and sprouting of corn at the bottom of the ear, from the trapped moisture in the husk. We will not have the luxury of letting mother nature dry the corn down, with this potential fungal growth. We need to check our fields, and get the corn off as well as dry the corn down, so that we can get moisture corn down below 15% moisture to stop fungal growth."

Herbicide Resistant Weeds



I am seeing an increase in Mare's tail along field edges and in fields. Unmanaged fields that go unmowed are a potential source of spread. Be on the lookout for the occasional green weed standing above the crop. A single mare's tail can produce 100,000 seeds and can create a serious problem once established because it is known to be resistant to glyphosate.

Lambsquarter persists as a troublesome weed for control with glyphosate if it gets to big by application time or is hardened by dry conditions. This picture shows tall lambsquarter in soybean not to



mistaken for the troublesome pigweeds.

Known infestations of the troublesome pigweeds – palmer amaranth

and waterhemp are still very limited in our region. If you notice large weeds that you are unfamiliar with please contact me for identification and recording their spread.

Overall this growing season was warm and wet. Our field crops

(Continued on page 9)

(Continued from page 8)

turned out ok. Yields are mostly good.

Let's take a step back and review. Spring arrived early and the season started out warm and dry. March was warmer than normal and dry. It was reported as the 8th driest March for NYS since 1895. May was slightly colder than normal. There were concerns during planting about whether the soil temperatures were warm enough or whether a cold snap would hurt seedlings. The Northeast Regional Climate Center reports that for the Northeast and NY state it was the 15th warmest spring on record



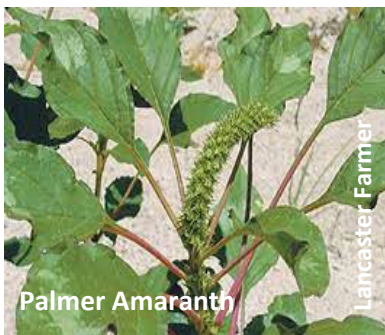
Waterhemp

Practical Farmers of Iowa

with an average

temperature of 47.2 degrees F which was 1.5 degrees F above normal.

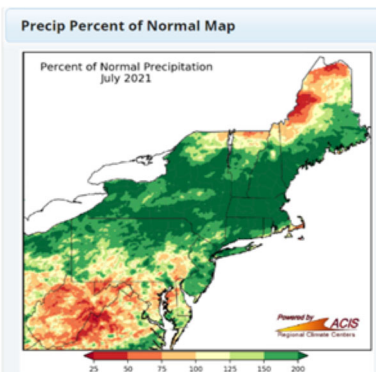
Although the growing season started out dry especially in May and June, rainfall in July broke records.



Palmer Amaranth

Lancaster Farmer

July was the wettest on record for NYS and several other NE states. NYS logged 21 days with rain. I'm sure you remember well the first dry spell long enough to harvest hay or haylage that the first week of August gave us. August was also the second hottest on record in the NE with an average temperature of 71.7 degrees F 3.0 degrees F above normal.



July 1-15 rainfall ranged from 50% of normal to more than 300% of normal

Summer 2021 ranked as the sixth hottest summer on record for the Northeast. The region's average temperature of 69.6 degrees F was 1.5 degrees F above normal. It was NY's seventh hottest summer.

We had a number of damaging thunderstorms and torrential downpours throughout the summer. Some with sporadic hail. Some storms causing washouts in

fields and roads and downed trees. Rain continued through August, mostly fueled by tropical storms from the Atlantic and Caribbean region. Three were notable for NY – Fred, Henri and Ida. We were soaked by Fred. Henri brought lighter rain but hit the Hudson Valley hard and Ida was a disaster for NYC.



Cover crop going strong

We've had an unusually warm fall with no frost in site in mid-Oct. Night temperatures have mostly stayed on the warm side. The window for winter wheat planting in September was good if soils weren't too wet. Cover crops appear to be thriving

across the region. Grass growth in pastures look like early spring. Some are taking advantage of the abundant hay growth for a late cutting. It has been a great season to rebuild crop inventories. Weather will continue as a key factor in our cropping programs. We need to be thinking about the practices that will hold on to our soil and allow our crops to thrive even as the seasons become less predictable.



Fall haycrop growth

Locale	Month	Average	Departure	Rank	Coolest	Warmest
NY	March	35.0	3.4	109	21.5 in 1960	43.3 in 2012
NE	March	37.8	3.3	112	24.6 in 1960	44.5 in 2012
NY	April	45.7	1.8	105	36.3 in 1943+	49.7 in 1921
NE	April	47.6	1.5	109	39.3 in 1943	50.6 in 2017
NY	May	54.7	-1.1	61	46.5 in 1917	61.3 in 1911
NE	May	56.2	-0.8	58	48.9 in 1917	61.6 in 1911
NY	June	67.2	2.8	122	58.8 in 1958	69.1 in 2005
NE	June	68.0	2.4	124	60.2 in 1903	68.8 in 1943
NY	July	67.7	-1.3	49	64.6 in 1992	73.2 in 1921
NE	July	69.3	-0.9	65	66.0 in 1962	73.7 in 2020
NY	August	70.5	3.1	124	60.8 in 1903	70.9 in 2016
NE	August	71.7	3.1	126	62.8 in 1927	71.8 in 2016
NY	Sept	61.8	1.4	108	54.0 in 1918	65.8 in 1961
NE	Sept	63.2	1.6	113	55.8 in 1918	66.2 in 1961

Monthly/Seasonal Climate Summary Tables 2021

NY Temperature Averages (°F)

Rankings are for the 127 years between 1895 and 2021. 1=coolest; 127=warmest. Departures are calculated using the 1991-2020 normals.

+ indicates extreme also occurred in one or more previous years.

Locale	Month	Ave.	Departure	Pct Normal	Rank	Driest	Wettest
NY	March	1.74	-1.35	56%	13	0.69 in 1915	5.79 in 1913
NE	March	2.53	-1.03	71%	25	0.87 in 1915	6.66 in 1936
NY	April	3.46	-0.10	97%	75	1.18 in 2001	6.78 in 2011
NE	April	3.23	-0.53	86%	50	1.50 in 1896	6.76 in 1983
NY	May	3.04	-0.66	82%	49	0.65 in 1903	7.28 in 1984
NE	May	3.46	-0.50	87%	57	1.26 in 1903	7.02 in 1984
NY	June	3.36	-0.94	78%	54	1.28 in 1912	8.58 in 1972
NE	June	3.30	-1.11	75%	27	1.59 in 1988	8.37 in 1972
NY	July	8.14	4.00	197%	127	1.93 in 1983	8.14 in 2021
NE	July	6.66	2.31	153%	126	2.22 in 1968	6.93 in 1897
NY	August	5.46	1.44	136%	119	1.45 in 1907	7.76 in 2011
NE	August	5.00	0.97	124%	111	1.80 in 1957	7.75 in 1955
NY	Sept	4.86	0.85	121%	101	1.17 in 1964	7.68 in 1977
NE	Sept	5.71	1.68	142%	115	1.39 in 1914	7.46 in 1999

Monthly/Seasonal Climate Summary Tables 2021

Digital Dermatitis Case Study – Achieving Success over Hairy Heel Warts

By: Betsy Hicks, Regional Dairy Specialist

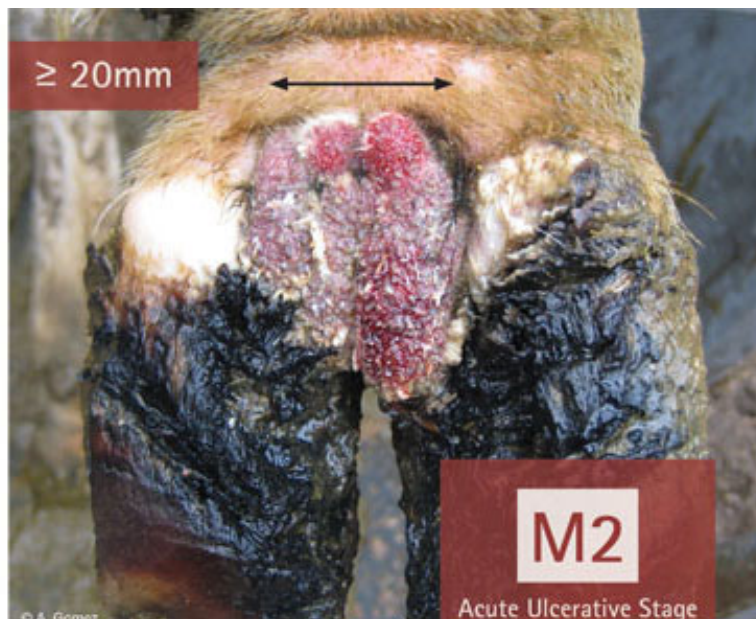
Digital Dermatitis, or Hairy Heel Wart, as most dairy farmers know it, is a painful experience for the cow, and a frustrating and costly lameness issue for the farmer. The case study I'll share in this article was from a participating farm in our NY Farm Viability Institute grant project "Focus on Farm Management: Areas of Excellence and Opportunity with Calves, Transition Cows and Cow Comfort". Participating farms received assessments in these three areas, worked with their Cooperative Extension Dairy Specialist to come up with an action plan, implemented the plan, and then had their farms reassessed about a year later. A benchmark of all fifteen participating farms was created for each farm to compare to, as well as against their original assessment.

Cow Measurements

This case study farm knew that heel warts and lameness in general was an area on their farm that they wanted to focus on. Their first assessment of cow comfort included lameness scoring, as well as hock and knee injury and hygiene scoring in their high pen. Upon comparison to the benchmark of participating farms, the farm's suspicions were confirmed that lameness was an area they needed to focus on; while almost 80% of their mature high group scored sound, almost 15% scored mildly lame and almost 6% scored severely lame. Benchmark numbers in contrast showed over 86% sound, 11% mildly lame and less than 3% severely lame. Hock injuries were also a concern, with mild hock injuries over double the benchmark average. Knee injuries were better than benchmark, with none found, but hygiene was also shown to be worse than the benchmark, with only over 30% of cows scoring slightly dirty compared to only 20% of the benchmark.

Facility Measurements

Along with cow measurements, management factors were also assessed on each farm. Stall sizing as well as stall hardness, bedding amount and cleanliness, and stocking density were evaluated and compared to benchmark. Bedding amount at first assessment was scarce, as the farm only bedded once per week, but stall base hardness and bedding cleanliness were both close to recommendations. The farm also noted their stocking density was almost 125% of stalls, but thankfully with lots of feed and water space, were



Source: <https://www.progressivedairycanada.com/topics/herd-health/digital-dermatitis-a-recipe-for-successful-control>

achieving 23" of bunk space and 3.3" of water space per cow in that pen.

Forming the Action Plan

After talking through the first assessment results, the farm wanted to develop their action plan to focus on improving their numbers associated with lameness and injuries. The first area they decided to work on was bedding in the stalls – to save time, they had been bedding only once per week. They changed that to twice a week. As hygiene was a concern, they took a good look at stocking density and the number of cows in the pen and did some strategic movement of cows, as well as implementing a better scraping schedule. We also invited a third party to assist us in thinking "big picture" about how we can more fully impact lameness on this dairy.

A third set of eyes

Inviting the third set of eyes turned out to be the key for this dairy. We met as a group to go over the goals for the herd and what we found in the assessment, and then walked the dairy in the same pathways as the herd walks them. Because heel warts were a significant concern, the outside eyes discussed common issues that occur on dairies that also struggle. Areas of uneven ground, standing water/manure slurry, and 90 degree turns with elevation change were all

areas pointed out to be addressed. These things, along with areas that are slip hazards for cows, are all places for the skin on the back of the foot to get micro-tears and allow the DD pathogen to enter and infect the foot. Evening out areas of the flooring, adding rubber strategically, and more grooving to prevent slipping were recommended to the dairy.

Footbath Changes

A big change for the dairy was also implementing a better footbath strategy. The footbath was in a strategic location – easy to fill and easy to clean, and able to be bypassed if necessary. Footbath design was also correct – 12 feet long and narrow, with no option for cows to go around or step over. They were achieving the correct number of dunks per foot, but were concerned with cost of copper sulfate and total cost of baths. Right off the bat, we calculated the correct amount of copper for the bath, and found their percent solution was less than adequate. Secondly, we implemented a soap bath. Remember, hygiene scores were less than ideal. In dealing with heel wart, our treatment must get to the skin and if manure is caked on, the treatment cannot reach the skin. The farm decided to implement the soap bath protocol 2-3 days before a treatment bath, and focus on cleaning feet with the hose in the parlor for those that needed extra attention.

The Results

About nine months after making changes, the farm received their second assessment. The results? The cases of severe lameness disappeared, and the foot trimmer had far less heel wart cases to treat. In addition, attention to the stalls showed that severe hock injuries also dramatically decreased, and hygiene scores improved to benchmark averages. The farm is now controlling stocking rate to 115% and focusing on keeping the footbath protocol up to snuff, as well as keeping a focus on hygiene. The keys to get the farm to make changes? In their words, “Having an outside person to point out areas to improve, having an external motivation”.

If you’d like to focus on foot health, feel free to reach out. I’d be glad to be your third set of eyes!

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Beware of Liquid Calcium Products

By Charles White, Penn State Ext., Asst Professor of Soil Fertility & Nutrient Management

Do the math and consider the chemistry before investing in a liquid calcium product for your soil.



Liquid calcium products are a mainstay in the vast marketplace of less-than-reputable soil fertility amendments. Most liquid calcium products I encounter are a solution of dissolved calcium chloride, with a density around 11 lbs/gallon and a calcium analysis of 10% by weight. A gallon of product with these specifications contains 1.1 lbs of calcium, and recommended application rates ranging from 2 to 5 gal/ac would apply 2.2 to 5.5 lbs calcium per acre. This is a very small quantity of calcium in the scheme of things. For reference, the "plow layer" (6.66" depth) of a typical agricultural soil in Pennsylvania (a CEC of 10 meq/100g and a base saturation of 65% calcium) already contains 2,600 lbs/ac of exchangeable calcium. It's also worth comparing the cost and calcium content of liquid calcium to limestone. Interestingly, a gallon of the liquid calcium costs about the same as a ton of limestone, but the ton of limestone contains 800 lbs of calcium (assuming it is pure calcium carbonate) compared to only 1.1 lbs of calcium in the gallon of liquid product.

Doing the math on the liquid calcium products is a sobering exercise. But you might still be convinced to buy the liquid calcium product after reading the marketing literature, which does a great job of blending truth, half-truth, and non-truth into a believable argument. One of the typical claims is that the liquid calcium is instantly soluble, whereas limestone takes several months to dissolve. This is true. If you want a pound or two of instantly soluble calcium to join the more than 2,000 lbs/ac of calcium that is probably already in your soil, then an application of liquid calcium would do just that. However, if your soil needs calcium it is much more economical to

buy a ton of limestone and wait 6 months for it to dissolve.

Another claim is that liquid calcium will instantly increase soil pH by raising the base saturation of calcium on the CEC. This is a half-truth. It is true that there is usually a relationship between base saturation and soil pH. Theoretically, a calcium ion could displace a hydrogen ion on the CEC, causing that hydrogen ion to leach slightly deeper into the soil profile. However, the miniscule quantity of calcium applied in recommended application rates of liquid calcium products is not going to be able to provide nearly the quantity of calcium needed to change the soil pH through displacement of hydrogen ions on the CEC. And liquid calcium products, once they displace a hydrogen ion, do nothing to neutralize that hydrogen, so the hydrogen ion is either going to just move a few inches down in the soil profile, or more likely, just land back on the CEC in the same place since hydrogen has a greater affinity for cation exchange sites than calcium. In order to truly neutralize acidity in the soil, you need a product capable of creating a hydroxide molecule (OH⁻), which includes traditional liming products made from calcium or magnesium carbonates, hydroxides, oxides, or silicates.

One of the most dubious claims I have seen on liquid calcium products is that they are superior sources of calcium compared to limestone because they are not diluted by the other components of the "rock" that are not calcium. What they mean by this is that pure calcium carbonate limestone is only 40% calcium, so they are discarding any benefit to the 60% of the material that is the carbonate part. However, the carbonate part of the rock is what neutralizes acidity, actually providing a great deal of value. Interestingly, the liquid calcium products don't mention that only 10% of their product by weight is calcium, the other 90% being water and chloride molecules, which have little value.

Based on the actual calcium content, the chemistry, and the cost of liquid calcium products, it becomes very clear that they are no rival to traditional limestone for supplying the calcium and acidity neutralization needed in Pennsylvania ag soils.

Article reprinted from: <https://extension.psu.edu/beware-of-liquid-calcium-products>



Weed Seed Movement and Equipment Clean-Out

By: Lynn Sosnoskie – Horticulture Section, School of Integrative Plant Science, Cornell University

October 26, 2021—Weeds can interfere with crop growth and development, directly, via competition for water, nutrients, and light. Indirectly, weeds can physically interfere with crop production operations, including harvest. Weeds that escape in-season control often produce significant quantities of seed, which are threats to future yields. While most seed will be deposited in the same field in which it was produced, some may be transported between sites on combines. Throughout the US, university personnel have reported harvesters as being important mechanisms of seed dispersal for some economically important weed species, such as herbicide resistant biotypes of Palmer amaranth (*Amaranthus palmeri*) and waterhemp (*Amaranthus tuberculatus*).

While it may not always be feasible to thoroughly clean equipment between every field, removing as much plant debris as possible before transferring combines between sites is a valuable strategy for controlling weed seed spread. Newly purchased, but previously owned harvesters should be inspected thoroughly to prevent new weed species or weedy biotypes from being introduced. Here in NY, seeds recovered from a combine recently acquired from an out-of-state grower were identified as waterhemp. Results from subsequent herbicide resistance screening efforts found that the developing seedlings could not be controlled by glyphosate (WSSA Group 9) and some of the ALS-inhibiting (WSSA Group 2) herbicides, with possible resistance to at least two additional chemical classes. Ultimately, the careful examination of this harvester may have prevented the establishment of a difficult-to-control weed with a novel resistance profile.

Before engaging in combine clean-out efforts, make sure all personnel are equipped with PPE such as safety glasses,

gloves, dust masks, and ear protection and that everyone involved is familiar with the safe operation of any equipment. Although the combine head and feeder house are likely areas for weed residue to accumulate, tissue and seeds can accrue in all parts of the harvester including the rotor, rock trap, grain tank, and unloading auger. Be strategic with site selection when conducting end-of-season equipment clean-outs; choose a location where dislodged or removed seed cannot be easily blown, picked up by footwear, washed away or otherwise transported back to fields. Vacuuming up all residue and disposing of it securely will help prevent unintentional seed return. The removal of debris may have additional economic benefits (beyond its impacts on weed control efforts) if it prevents unnecessary wear-and-tear and helps to preserve equipment functionality over time.

While harvester clean-out is important for limiting weed seed movement, other strategies can also minimize weed dispersal. This includes avoiding overly dense patches of weeds in a field (especially if you suspect herbicide resistance) and arranging harvest operations to ensure that the weediest fields are harvested last. Remember that unwanted seed can also be picked up and spread on tires and on tillage and planting equipment. Remove clumped soil from implements and tractors to avoid spreading weed seeds, as well as devastating soil-borne pathogens.

See: the following links for more details: [end-of-season-combine-clean-out-fact-sheet.pdf \(ndsu.edu\)](https://www.ndsu.edu/publications/extension/End-of-season-combine-clean-out-fact-sheet.pdf) and [Weed Seed Movement via Combines.pdf \(wiscweeds.info\)](https://www.wiscweeds.info/files/WeedSeedMovementviaCombines.pdf) and [Weed Seed Management at Crop Harvest.pdf \(wiscweeds.info\)](https://www.wiscweeds.info/files/WeedSeedManagementatCropHarvest.pdf).

Reprinted from <https://blogs.cornell.edu/ccefieldcropnews/2021/10/26/weed-seed-movement-and-equipment-clean-out/>



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Capturing Rain is a Full-time Job for Grazing Dairies

By Troy Bishopp, *The Grass Whisperer*

Penn Yan, NY---After the 2020 historic drought in the Finger Lakes, area grazing dairy farmers are enjoying 2021's robust growing season with plentiful moisture, heat and a return to pasture walks with an emphasis on biology.

However, this summer's deluges of frequent rain have tested a farmer's resolve to keep it sequestered on the land and away from impacting local waterbodies that welcome thousands of hungry visitors to the region. In Genesis 9:3, a reverie ensues: "Every moving thing that lives shall be food for you. And as I gave you the green plants, I give you everything."

To facilitate the important work green plants provide, Ontario and Yates County Soil and Water Conservation Districts recently led a large grazing workshop partnering with 2 local organic grazing dairies, Fay Benson, Small Dairy Educator for Cornell's South Central NY Dairy Team and USC Grazing Specialist, Troy Bishopp for a day of learning and fellowship.

The morning session held at Leon Brubacher's Dairy Farm in Himrod, NY featured a presentation on soil health and soil structure principles as it pertained to pastures by Fay Benson. Leon led the eager group out to his certified-organic, 40 cow, 14 paddock grazing system where he discussed his forage management style, "as taking proper care of the plants" for profitability and soil health. With the "overly" abundant rain, swards were growing an inch per day and were fully recovered in 22 days, a feat usually witnessed in the spring. It showed how intensive management and fertility played a large part in the farm's resiliency.

In a group exercise, the farmers measured, bantered and predicted pasture production, much to the delight of everyone, because most practitioners have a different context and "grazier's eye". "It felt really good to laugh", said one farmer. Because farmers like tools, they squeezed grass plants and measured brix levels using a refractometer. Levels were between 7 and 10 which indicated the effect of the rain on lowering forage energy for the cows. Mr. Brubacher was using this premise and giving his cows a pasture ration where the cows only grazed the very tops of plants which also contributed to a high residual that armored his soil against the frequent rain events.

Folks also got to see a dung beetle trap for the first time as Mr. Benson, "delicately", pulled the simple device out of the manure to measure activity of the beneficial insects. With good grazing techniques, the insects were doing yeoman's work for the surrounding soil. As the tour ended, Yates County's Soil and Water Conservation District Senior Technician, Tom Eskildsen, described the benefits of sod for the Keuka Lake Watershed and gave advice on diverting water into grass catch basins and offering to help anyone design a more resilient farming operation.

The afternoon gathering held at Andrew Hoover's Farm in nearby Stanley, NY highlighted some different approaches to grazing for the larger herd of 100 cows. To lead off the fine day, Fay Benson

taught a large contingent of farmers about soil management using the tools from the NY Grazing Coalition Soil Health Trailer. "Soil aggregate structure is really key," emphasized Benson. "Soil needs to have good aggregate structure and stability to keep improving biology. Structure is

caused by the bacteria eating process. By stimulating organic matter to do its job, we get really healthy soil." "In pastures, we need to be careful of compaction, said Benson. It's slow to show up and slow to get rid of. The more organic matter, the more resilient soil is to compaction". He cited his research on this topic at (<https://projects.sare.org/wp-content/uploads/Compaction-Fact-Sheet-Final-1.pdf>)

Andrew led the group out to see his "summer seasonal" certified-organic 100% grass-fed dairy herd. "Being seasonal in the summer allows us to efficiently harvest our forage crops, graze for maintenance not intense production, have time-off with our children and capture a higher milk price in the fall from Maple Hill Creamery. It works well for us," said Hoover. The Ontario County farm sits higher up in the landscape and has had half the rain of the Brubachers.

The series of 5-acre rectangular paddocks are managed with rain capture in mind. "Managing mostly dry cows, allows us to trample more forage and improve soil biology with more mature plants and a diverse mix of root systems, said Mr. Hoover. The pasture system has an extensive above-ground municipal water system to each paddock which allows for improved fertility management and keeps animals out of the laneways. Most of the pastures had over 40 days of recovery to meet Andrew's goals.

"Well managed pastures like these, help protect our local watersheds, said Meghan Webster, Ontario County's Soil and Water Conservation District Manager. The merging of environmental and economic benefits through healthy soils and productive, profitable farms are priorities for us. We're happy to promote and support such positive practices".

The group ended their enlightened tour under a shade tree enjoying fellowship and Mrs. Hoover's homemade, molasses moon-pies and the farm's own delectable "full-fat", chocolate milk. The day reminds one of Isaiah 55:2b: "Listen to me, and eat what is good, and you will delight in the richest of fare."



Small farms educator, Fay Benson, shows farmers a dung beetle trap in use. Credit: Troy Bishopp

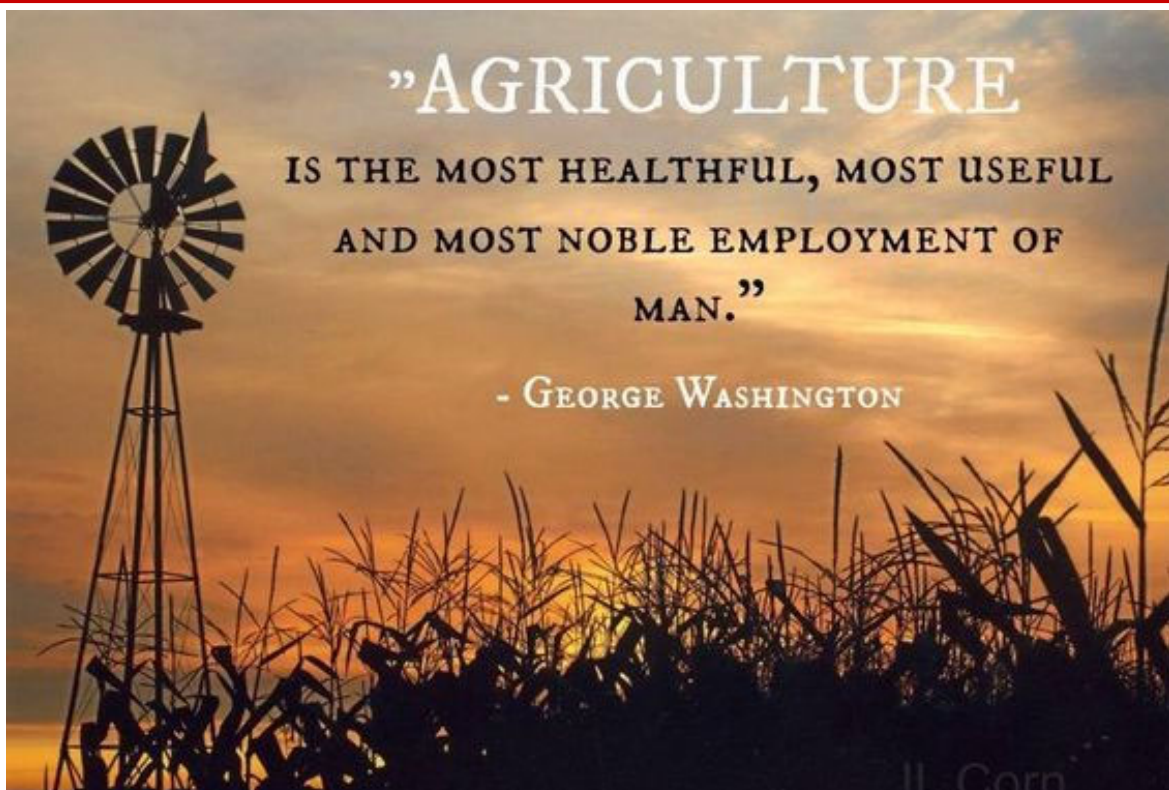
Dairy Market's Problems Stem from USDA's Failure to Fix Loophole in the NOP *By Fay Benson SCNY Dairy Team with Input from Ed Maltby-NE Organic Dairy Producer's Alliance*

Six years ago, there was a sudden flood of organic milk nationally. This was due to the certification of six CAFO dairies in Texas. These six dairies produced as much milk as all of the organic dairies in Wisconsin. The sudden flood of milk sent the price farmers received for their organic milk downward by 15-20%. Then this summer, Horizon Organic sent notification of loss of market warnings to 89 farmers in the northeast, including 40 in Upstate NY. Both of these events can be linked back to the USDA's failure to correct a loophole which has existed within the National Organic Program (NOP) rules for the past 18 years.

In response to the Horizon one-year termination warning, 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 of 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.

We have, however, had some possible good news recently. Reports are that Chobani Yogurt representatives have been visiting farms in northern New York that are to be dropped by Horizon with view to starting an organic line. 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.





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Events Calendar

Nov 1st-Dec 16th Mondays & Thursdays 6:30-8:30 pm via Zoom	Annie's Project: Risk Management for Farm Women Covering areas of risk management: production, financial, marketing, human resources & labor. Using real world examples, subject matter experts, and peer to peer learning farm women will walk away more empowered and confident to take on responsibilities on-farm! FMI: Contact Laura Biasillo at 607- 584-5007
Nov. 2—Dec. 14 Tuesdays 12:30-1:00 pm	Transition Cow Tuesdays Topics Covered: Transition Cow Nutrition, Feeding, Selective Dry Cow Therapy, Facility Considerations, Calving, Post Calving Monitoring, Evaluating Transition Management Register online at: https://cals.cornell.edu/transition-cow-tuesdays-webinar-series
October 1,8,15,22,29 November 5, 12, 19 12—12:45 pm	Healthy, Hardy Heifers! Virtual Series Fall 2021 Sessions offered online (via Zoom) at 12:00 pm EST To register: https://scnydfc.cce.cornell.edu/event.php?id=1656 ; FMI: Donette Griffith, dq576@cornell.edu / 607-391-2662
November 22 , 23, and December 2, 3, 9, 10. Via Zoom	Labor Roadshow V Learn about regulation changes and how to best position your business for compliance and success Visit https://agworkforce.cals.cornell.edu/labor-roadshow-v/ to register online Fee: \$55/ all sessions
December 2, 2021 7:00—9:00 pm Via Zoom	Farm Financial Records for Decision Making & Tax Management Register online by visiting tinyurl.com/ccetaxschool . This is REQUIRED three business days in advance of the workshop. Fee: \$10/farm : Visit http://tinyurl.com/ccetaxschool
January 18, 2022 7pm - 9pm Via Zoom	Tax Management for Beginning and Small Farm Businesses Register online :This is REQUIRED three business days in advance of the workshop. Visit http://tinyurl.com/ccetaxschool : Fee: \$10/farm
January 25, 2022 7pm - 8:30 pm Via Zoom	Farm Specific Tax Code Benefits Register online :This is REQUIRED three business days in advance of the workshop. Visit http://tinyurl.com/ccetaxschool : Fee: \$5/farm