

North Country Ag Advisor

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Cornell Cooperative Extension North Country Regional Ag Team

VOLUME 5 ISSUE 11

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North Country Ag Advisor

Published by the CCE North Country Regional Ag Team collaborating with Harvest NY

Layout/Design: Tatum Langworthy

"The North Country Regional Ag Team is a Cornell Cooperative Extension partnership between Cornell University and the CCE Associations in Jefferson, Lewis, St. Lawrence, Franklin, Clinton, and Essex counties."

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Our Mission

[&]quot;The North Country Regional Ag Team aims to improve the productivity and viability of agricultural industries, people and communities in Jefferson, Lewis, St. Lawrence, Franklin, Clinton, and Essex Counties by promoting productive, safe, economically, and environmentally sustainable management practices, and by providing assistance to industry, government, and other agencies in evaluating the impact of public policies affecting the industry."

Field Crops and Soils Are Persistent Biocontrol Nematodes (Entomopathogenic) an Economic Benefit for Your NNY Farm?

By Elson Shields and Tony Testa, Dept of Entomology, Cornell University

What are Biocontrol Nematodes?

Biocontrol nematodes are microscopic round worms in the soil which only attack insects in the soil, or on the soil surface. These are different nematodes from the plant parasitic nematodes which attack crops. The biocontrol nematodes discussed here are native to our NNY soil where they were original collected. The nematode insect infective stage (called the Infective Juvenile or IJ) moves about in the soil in search of insect hosts, finding the insect using CO2 gradients and other chemical attractants. When an insect host is located, the IJ enters the insect through a breathing opening called a spiracle and enters the insect body cavity. Once inside, the nematode releases a bacteria which kills an insect. The nematodes then molt to adults and produce offspring on the nutrition provided by the dead insect. When the insect resources are consumed, a new set of IJs are released into the soil to search additional insect hosts. An average sized insect larvae will produce between 100,000 and 200,000 new IJs.

What do these biocontrol nematodes attack?

Alfalfa snout beetle: This entire technology was developed to reduce snout beetle populations to sub-economic levels within NNY. This insect is costly to the dairy farmer, commonly killing out alfalfa in a single year. The economic costs of this insect to dairy farmers is very high and often hidden. Dairy farms are impacted with the high cost of replacing alfalfa fields and the high cost of purchasing replacement feed to replace the lost alfalfa production. Estimates of these dual costs exceed \$30,000 per 100 cows on the farm annually. To date, more than 150 NNY farms have applied biocontrol nematodes to >25,000 acres to successfully reduce snout beetle to a sub-economic level and increase stand life back to 3-5 years.

Corn Rootworm: During the research developing this technology for snout beetle, it was discovered that biocontrol nematodes applied in alfalfa for snout beetle control also carryover to attack corn rootworm when the field is rotated to corn. Not only are the biocontrol nematodes completely compatible with all of the Bt-RW traits, killing the Bt toxin survivors, but in NY, the biocontrol nematodes appear to be capable of being used alone if the farmer chooses to grow non -Bt-RW traited corn. Research has shown that after 4 years of corn, the populations of biocontrol nematodes in the field are high enough to attack snout beetle when the field is rotated back to alfalfa.

Wireworm and White grubs: Since NNY alfalfa culture usually incorporates grass into the mix, NNY fields usually have a population of wireworms and native white grubs in the field when the field is rotated to corn. Often, these insects then cause stand problems in first year corn. If the field has been inoculated with biocontrol nematodes for control of either snout beetle or rootworm, the biocontrol nematodes also attack these insects and reduce their impact on seedling corn when rotated to corn.

Seed corn maggot: With our corn and soybean insecticide seed treatments under attack, the questions arises whether biocontrol nematodes present in the soil will be effective against seed corn maggot under NY spring conditions. Seed corn maggot is killed by biocontrol nematodes in the laboratory, but the question is whether the biocontrol nematodes can work fast enough in the field under the cool spring soil temperatures.

Does the soil type influence the species of biocontrol nematode applied?

NY research data indicates a mix of biocontrol nematode species gives better control of soil insects than a single species alone. The reason for these results is each nematode species has a preferred section of the soil profile where it is the most effective. For example, *Steinernema carpocapsae* prefers the top 2-3" of the soil profile and becomes the dominate species in this region. If *S. carpocapsae* is the only nematode used, insect larvae below the 2" level escape attack from *S. carpocapsae*. A second nematode species which prefers the low portions of the soil profile complements the presence of *S. carpocapsae* and gives more complete control of soil insects located below 2". In the lighter soils, the top 2" often become too dry for a biocontrol nematode to move and attack insect larvae. In these soils, a nematode species mix which includes *S. carpocapsae* would be ineffective.

Our recommendations for biocontrol nematode species mixes for soil types:

- Clay loam silt loam soils: S. carpocapsae + S. feltiae
- Sandy loams sand soils: *S. feltiae* + *Heterorhabditis bacteriophora*.
 - Continued on Page 4...

Biocontrol nematodes purchased from commercial sources have lost the ability to persist in the soil after application for a significant length of time. Many commercial strains persist in the soil for only 7-30 days and require application timing to be closely matched with the presence of their target host and an annual reapplication is required. In contrast, the NY persistent strains of biocontrol nematodes are carefully cultured to maintain their evolutionary ability to persist across hostile conditions such as the lack of available hosts and temperature extremes (like winter). Additionally, NY persistent strains are re-isolated from the field every two years so the nematode cultures do not become "lab strains", but remain adapted for NY agricultural soil conditions. NY persistent strains are applied a single time and persist in the field for many years following application. Not surprising because they were isolated from NY soils where they have evolved for a few million years. If the NY persistent strains are cultured carelessly, they also quickly lose their ability to persist and are no better than the commercial strains purchased off the web.

How are biocontrol nematodes applied?

There are two major ways to apply biocontrol nematodes to NNY fields:

1. Commercial pesticide sprayer: Thousands of acres have been inoculated using slightly modified pesticide sprayers of all sizes from 30' booms to 100+' booms. To use these sprayers, the following guidelines need to be followed.

- A good washing of the sprayer (similar to changing pesticides)
- All screens and filters removed (nematodes cannot pass through them
- Nozzle change to a stream type nozzle to shoot a concentrated stream of water to the soil surface through any vegetation
- 50 gpa minimum
- Application in the evening or under cloudy/rainy conditions (nematodes are sensitive to UV)

2. Liquid Dairy Manure: This method has been recently developed and offers some advantages over using a pesticide sprayer. The biggest limitation is that the time between adding the nematodes to the liquid manure and field application. After adding the nematodes to the manure, the manure needs to be spread in the field within 20-30 min. Longer intervals results in the nematodes dying from the lack of oxygen.

The advantages of using liquid dairy manure as the carrier are 1) no extra trips over the field, 2) can be applied any time of the day, and 3) no extra costs.

Application timing:

Biocontrol nematodes which are persistent, can be applied anytime during the growing season when soil temperatures are above 50 F. Ideally, nematodes should be applied when there are hosts in the soil so they can immediately go to work and reproduce. However, the NY persistent strains have the ability to sit and wait for months before needing to attack hosts and reproduce. We request that no nematode applications be made after September 15th due to cooling soil temperatures and limited time to find hosts before winter. Applications are made to the soil surface under conditions of low UV exposure (late in the day, rainy/overcast days, in cover crops where there is adequate ground shading). Field tillage has no impact on biocontrol nematodes. In addition, if nematodes are applied before field tillage, the movement of soil during tillage helps the nematodes redistribute throughout the field and helps them fill in the gaps which may occur during application.

Where can I get biocontrol nematodes which are adapted to NY and will persist across growing seasons?

Currently, there are two sources to purchase biocontrol nematodes adapted to NY growing conditions with their persistent genes intact to persist across growing seasons (and winter) in NY:

- Mary DeBeer, Moira, NY Cell: 518-812-8565
 Email: <u>md12957@aol.com</u>
- Shields' Lab, Cornell University: Tony Testa Cell: 607-591-1493 Email: at28@cornell.edu

Cornell Cooperative Extension Dairy Day

Join us <u>VIRTUALLY</u> for the main dairy program offered by Cornell Cooperative Extension this winter in the North Country. This 4-part seminar will provide the latest information on dairy production and management, emerging trends, and local research updates.

January 12, 2021 – Milk Quality

- Selective Dry Cow Treatment (Dr. Pete Ostrum, Countryside Vet Clinic)
- Bedding and Management Factors (Dr. Paula Ospina, Independent Consultant)
- Diagnosis and Treatment (Dr. Pam Ruegg, Michigan State)

January 13, 2021 – Industry Sustainability

- Consumer Trends and Industry Sustainability (Dr. Sara Place, Elanco)
- Farmer Mental Health and Sustainability (Briana Hagen, U of Guelph)
- Future Animal Welfare Considerations (Dr. Nigel Cook, U of WI)
- FARM Program 4.0 Update (Lindsay Ferlito, CCE NCRAT)

January 14, 2021 – Dairy Markets and Labor

- Dairy Market Updates (Dr. Chris Wolf, Cornell University)
- Labor Updates (Dr. Richard Stup, Cornell University)
- Employee Management (Tom Wall, Dairy Coach)

January 15, 2021 – Calf Management

- Social Behavior (Dr. Jennifer van Os, U of WI)
- Calf Health (Dr. Rob Lynch, Cornell University)
- Optimizing Calf Nutrition (Dr. Mike Steele, U of Guelph)
- NNYADP Calf Diarrhea Research Update (Casey Havekes, CCE NCRAT)

Registration:

https://ncrat.cce.cornell.edu/event.php?id=1367

Contact Tatum Langworthy (CCE NCRAT)

Cost = \$20 (includes all 4 sessions)

*Program is in part sponsored by Northern New York Agriculture Development Program grant funding

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Cornell Cooperative Extension is an employer and educator recognized for valuing AA/EEO, Protected Veterans, and Individuals with Disabilities and provides equal program and employment opportunities.



January 12, 2021 12pm - 2pm Milk Quality

January 13, 2021 12pm - 2pm Industry Sustainability

January 14, 2021 12pm - 2pm Markets and Labor

January 15, 2021 12pm - 2pm Calf Management

* All sessions offered online only (via Zoom) *

<u>Contact Info:</u> Tatum Langworthy tlm92@cornell.edu 315-788-8450 Cornell Cooperative Extension Central New York Dairy, Livestock and Field Crops

Livestock & Whole Farm Risk Management Awareness

Format: Zoom: Link will be emailed to registrants.

When: Tuesday, November 17, 2020

Time: 7:00PM - 9:00PM

Cost: \$5 per farm

RSVP: November 15, 2020

Register at: https://cnydfc.cce.cornell.edu/event.php?id=1349

Are you aware of the RISK management programs available to livestock entities?

Join us to learn about programs offered by USDA Risk Management Agency to help offset risk on the livestock and as a whole farm plan. This webinar is designed to assist producers in understanding and finding value in managing downside market disruption with risk tools available. We will have Tristan Peterson and his team members from Certified Crops Advisors on hand to educate our producers on the programs.





Cornell Cooperative Extension

Capital Area Agricultural & Horticultural Program

Registration is required by November 15.

Register online at https://cnydfc.cce.cornell.edu/event.php?id=1349

Central New York Dairy, Livestock and Field Crops Team is a Cornell Cooperative Extension partnership between Cornell University and the CCE Associations in Chenango, Fulton, Herkimer, Madison, Montgomery, Otsego, Saratoga and Schoharie Counties

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Dairy

Dialing into Your Best Dairy: Reaching Your Herd's Genetic Potential, the Neonate Phase

By Casey Havekes and Alycia Drwencke (CCE Southwest NY Dairy, Livestock, & Field Crops Program)

Many years of research have demonstrated that from birth to weaning is a critical period in the dairy animal's life and the management decisions made during this time could have long term effects on that calf's future performance, health, and productivity. Several key management tips have been highlighted here which should be considered to maximize the success of the neonate period.

Calving Ease

 While difficult calvings are unavoidable at times, it is important to consider the toll it may have on not only the mother, but also on the newborn calf. Utilizing the <u>VIGOR scoring system</u> can be an effective strategy in assessing the status of newborn calves. This scoring chart focuses on 5 areas: visual appearance, initiation of movement, general responsiveness, oxygenation, and heart and respiration rates. The chart walks you through a series of observations and assigns the calf a score – the higher the score, the less vigorous the calf is. Calves that are deemed less vigorous should be monitored, and at times, offering less vigorous calves an NSAID has been shown to improve success in early life.



Colostrum Management & Nutrition

In addition to basic colostrum management and getting high quality colostrum into the calf quickly, there are some additional considerations grounded in recent research. A few key takeaways include:

- Feeding 1 gallon of colostrum resulted in higher average daily gain, greater chance of survival through their second lactation, and higher milk yield through their second lactation compared to calves fed half a gallon.
- With strong colostrum management, two separate, smaller colostrum feedings within a 12-hour window can be utilized. This approach does not reduce total serum protein levels; however, please note that high quality colostrum must be used for both feedings, not the second milking from the cow.
- Collecting and feeding transition milk (the 2nd to 4th milking after parturition) is nutritious and beneficial to the newborn calf following the initial colostrum feedings, and contributes to improved intestinal development. An alternative strategy is to mix colostrum with milk or milk replacer as a transition to take advantage of these benefits.
- Calves can handle larger meals! When calves are fed with automated feeders they prefer to consume ~1.5 gallons per meal, with some calves consuming up to ~2 gallons per meal.
- With the right plane of nutrition, calves should have no problem achieving an ADG of 2.2 pounds per day.
- Providing feed and water by 3 days of age is now a requirement as per FARM 4.0.
- When feeding whole milk, keep in mind that calves need consistency. Check the solids content periodically to make sure the levels are adequate and consistent. Adding a balancer/enhancer could be beneficial if you run into issues with solids being out of line.

Cleanliness & Calf Comfort

 Maintaining a clean, dry, and comfortable maternity pen for the calf and the cow will help reduce the risk of naval infections for the calf and contaminant exposure for the cow. proper body temperature regulation.

equipment such as calf jacks, chains, and so on.
Using an appropriate washing detergent with hot water at 120 degrees Fahrenheit followed by proper drying of equipment is essential to reduce pathogen growth.

Keeping the calf dry in the winter will help with

All feeding equipment, including bottles, buckets,

nipples, tube feeders, etc., should be sanitized

- Ventilation is important for calf health. Calves require 4 air exchanges per hour in the winter, and 60 air exchanges per hour in the summer. There has also been an increased amount of literature showing the benefits of providing heat abatement of fans and a shade source to calves.
- Socially housing calves can be beneficial, including improvements in their ability to learn and cope with change. If calves are socially housed, group size should ideally be kept around 8, but can increase up to 15 with appropriately sized pens and management. The Ontario Ministry of Agriculture, Food and Rural Affairs has a minimum suggestion that calves less than 6 weeks of age receive 2.0 m²/calf, and this allotment increases to 3.5 m² after that, until weaning. Grouping early in life and maintaining consistent social structures can reduce stress. When regrouping is necessary, try to keep each calf with at least one familiar pen mate to further reduce the stress associated with the group change.

Weaning

- Weaning is a stressful period so limiting the number of changes that occur during this time period is essential (i.e. pen changes, regrouping, disbudding, further nutrition changes).
- Consider weaning based on starter intake rather than age. In order to avoid post-weaning growth slumps, calves should be consuming 4.5lbs of starter per day by the time they are fully weaned. This means calves should be consuming upwards of that at the time the weaning process starts.
- If weaning is solely based on age, research has shown that calves have better post-weaning growth if they are weaned at 8 weeks compared to 6 weeks.
- Gradual or step down weaning over a 2-week period is favorable from a behavioral standpoint and helps avoid post-weaning growth slumps.

Overall, this early life period is a vulnerable time and there are many additional considerations beyond what has been discussed here. Implementing these strategies can help maximize success early in the calf's life. Careful monitoring of the calf at birth, colostrum management, nutrition, comfort and ventilation, cleanliness, and weaning are all areas that require attention to detail. For help on these topics or for additional considerations, reach out to your local Cornell Cooperative Extension Dairy Management Specialist.

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*2015 SNL Financial Report. Based on statutory data.

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Cornell Cooperative Extension North Country Regional Ag Team

Fireside Chats

Join us <u>VIRTUALLY</u> for a series of presentations with topic area experts. This 6-part series, offered Tuesday evenings at 7:00pm from November 17, 2020 until December 22, 2020, will provide valuable information on key topics in dairy management, crops, and dairy business.

November 17, 2020 – Dairy Business & Labor Dr. Rich Stup, Cornell University November 24, 2020 – Dairy Cow Hoof Health Karl Burgi, Save Cows

December 1, 2020 – Weed Management Bryan Brown, Cornell University

December 8, 2020 – Forward Contracting Anup Singh, Solera Advisors

December 15, 2020 – Dairy Repro Management Dr. Julio Giordano, *Cornell University*

December 22, 2020 – Soil Health & Cover Crops, Dr. Kitty O'Neil, CCE North Country Regional Ag Team

Registration:

https://ncrat.cce.cornell.edu/event_preregistration_new.php?id=1375
Contact Tatum Langworthy (CCE NCRAT)

Cost = \$15 (includes all 6 sessions)

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prodairy.cals.cornell.edu

Cornell Cooperative Extension

Online Feeder School in English and Spanish



The Online Feeder School is a two-part educational program for farmers, employees, and agriservice professionals who work as or with the feeder – the person responsible for mixing TMR, maintaining bunk silos, and communicating feed issues with other farm staff.

It will cover monitoring dry matter, feed bunk management, bunk face management, and troubleshooting mixer wagons.

Dates November 3 and 5 | 1:00 to 2:30 PM EDT (English) November 10 and 12 | 1:00 to 2:30 PM EDT (Spanish)

This program is available at no cost, thanks to support from generous industry sponsors but pre-registration is required.





Speakers

- Dr. Bill Stone Diamond V
- CCE Regional Dairy
 Specialists
- PRO-DAIRY

The Online Feeder School features Dr. Bill Stone of Diamond V, who has helped a multitude of farms troubleshoot issues with feeding their dairy herds. He adds his expertise in troubleshooting mixer wagons and will be live to answer questions during discussion.

CCE regional dairy specialists and members of PRO-DAIRY round out the lineup of speakers for the twopart program.

Program Details

There will be two separate virtual sessions: one two-part session in English and one two-part session in Spanish.

Each day of Feeder School is a 1.5 hour program, held from 1:00 PM to 2:30 PM EDT.

The program will be held online only with a combination of video demonstrations, presentations, and discussion.

The sessions in English will be held November 3 and 5, 2020.

The sessions in Spanish will be held November 10 and 12, 2020.

Registration

https://ncrat.cce.cornell.edu/ event.php?id=1343

Forage Inventory: Have you Taken Stock of Your Forage Harvests?

By Betsy Hicks, CCE South Central NY Dairy & Field Crops Team

One of the most frustrating things to a nutritionist, and indeed necessary. Once you've worked through the process for each the cow herself, is a diet that is constantly changing. Just when a diet gets dialed in, it seems that a new bunk is being opened, first cutting is being buried behind a subsequent crop, or an ingredient just ran out. Maintaining consistent forage content and quality in the diet is the basis for keeping other feed ingredients steady. Without knowing forage inventory, the task of maintaining consistency becomes almost impossible over a year's time. This year especially, with droughtaffected later hay crop cuttings and many corn fields being frosted early, paying attention to inventory of all forages now will ensure diet consistency through the winter months.

Where to Start? What are Forage Needs?

The first step for identifying inventory needs is to determine forage needs for the entire herd. Cornell Cooperative Extension published a Dairy Herd Forage Needs Worksheet several years ago that still applies, and I adapted it to an Excel spreadsheet so numbers can be easily plugged in and calculated (see Figure 1 below).

Key points to determining forage needs are:

- the number of animals in each group
- the average body weight of the group of animals
- the time frame in days that inventory needs to last

Another factor that comes into play is the forage dry matter intake, as a percent of body weight. For this purpose, lactating cows can be calculated between 1.5% to 2.5%, dry cows 1.2% to 1.7%, and heifers 1.0% to 2.0%. Feeding losses are another factor, and should be considered between 5-10% at minimum. For round bale feeding through feeders or other potential ways of feeding that experience loss, a higher percent may be

group of animals, the total forage tons (in dry matter) can be calculated for the time period selected, or per day. The key is remembering that this is dry matter tons, not as fed tons. See Figure 2 for an example for a 400 cow herd.

Determining Forage Inventory

After forage needs have been determined, forage inventory can be calculated. All bales of dry hay (round and square), bales of baleage (round and square), and haylage and corn silage in upright silos, bunk silos, ag bags, and drive-over piles should be considered and calculated. The key to determining forage inventory, especially with bunk storage, is to not overestimate the packing density. If you're not sure of the density, there are methods to assess this. Good rules of thumb that can be applied are 12 lb DM/cubic foot = poor packing, 15 lb DM/cubic foot = average packing, and 18 lb DM/cubic foot = excellent packing. In some cases over 20 lb DM/cubic foot can be achieved, but I would hesitate to use this number without verifying. Several years ago Cornell Cooperative Extension developed worksheets to assist in this process that I again adapted to Excel sheets, and can be shared (see Figure 3).

Finally, Matching Inventory to Needs

The last step to answering the question of adequate forage inventory involves matching forage needs to inventory. A simple subtraction of needs from inventory tells us whether there is an adequate supply or not for the time frame used in the forage needs worksheet. In this example, our forage needs worksheet used a full year of days to calculate needs, and while this probably is true for corn silage in most situations, many farms do not carry over a full year of haylage.

Continued on Page 12...

Group		(A) Number of Animals	(B) BW, Ibs.	(C) Forage DMI,% BW	(D) Daily Forage DMI, Ibs./cow (B*C/100)	(E) Days in Period	(F) Total Forage DM, Ibs./cow (D*E)	(G) Total Forage DM, Tons/cow (F/2000)	(H) Feeding Loss, %	(I) Adjusted Forage DM/ tons/cow ((100+H)*G)/100	(J) Group Forage DM, tons (A*I)
Milking	8									5	
Dry				· · · · · · · · · · · · · · · · · · ·						27 D	
Calves	< 2 months										
Heifers	2 – 12 months		-								
Heifers	>12 months										
Total											

Figure 1. Dairy Herd Forage Needs Worksheet

Adapting our forage inventory table to determine the days required for the forage to last will tell us if we have adequate inventory over the time frame. For example, if our corn silage inventory equals 2500 DM tons and we want it to last a full year, we can expect to feed up to 6.85 DM tons per day and make it last. If our first crop haylage inventory equals 500 DM tons and we need it to last 200 days, we can expect to feed up to 2.5 DM tons per day for it to last that time frame. In figure 2, I added a last row that calculates forage needs per day. For each forage type, we can match to the animal class that will eat it, and calculate if needs are met by inventory over time frame. In our example (Figure 2) lactating cows need a total of 7.35 DM tons per day. Our inventory of 2500 DM tons of corn silage and 500 DM tons of first crop is adequate for our lactating cow needs, but the forage needs of other animal classes must be added to those numbers to be sure there is enough inventory of each forage.

Key Side Note

Shrink is not included in any forage needs numbers, other than feeding losses. Forage inventory numbers also do not

Figure 2. Dairy Herd Forage Needs Worksheet

take into consideration any shrink amount. Even if there is minimal visual spoilage in a pile, some amount of shrink is probably occurring. Evaluating inventory several times throughout the year is worthwhile to account for this, especially if there is significant spoilage on the sides or top of piles.

Tedious, but Worthwhile

Nothing is more concerning than watching a pile of corn silage disappear faster than anticipated, other than perhaps running out of said forage. Taking the time to evaluate inventory in the fall, after harvest of all crops is necessary to set the stage for feed-out over the winter months. Another good time to reevaluate inventory and adjust feed-out rates is around the first of the year. Small changes are better than large changes, and involving your nutritionist to evaluate inventory during set time periods over the course of the year will ensure that the farm, the nutritionist, and the diet are all on the same page. Your Cornell Extension Educator can also help walk you through the process; we're only a call away. The cows will thank you for it!

Group		(A) Num- ber of Animals	(B) BW, lbs.	(C) For- age DMI, % BW	(D) Daily Forage DMI, Ibs/ cow (B*C/100)	(E) Days in period	(F) Total Forage DM, Ibs/ cow (D*E)	(G) Total Forage DM, tons/ cow (F/2000)	(H) Feeding Ioss (%)	 (I) Adjusted Forage DM/ tons/cow ((100+H) *G)/100 	(J) Group Forage DM, tons (A*I)	(K) Tons Forage DM/day (J/E)
Milking		350	1600	2.5	40	365	14600	7.3	5	7.7	2682.8	7.35
Dry		50	1700	1.7	28.9	365	10548.5	5.3	5	5.5	276.9	0.76
Calves	< 2 mos	20	150	1	1.5	365	547.5	0.3	5	0.3	5.7	0.02
Heifers	2-12 mos	150	700	1.5	10.5	365	3832.5	1.9	10	2.1	316.2	0.87
Heifers	>12 mos	150	1100	2	22	365	8030	4.0	10	4.4	662.5	1.82
									тоти	AL DM TONS	3944.1	10.8

Figure 3. Determining total tons of dry matter from bunker silos.

D. Bunker silos					
Silo ID	Сгор	Feet remaining, height, width, length	(A) Cubic Feet remaining (Length*height*width)	(B) Packing density	(C) Tons DM silage (A*B)/2000
Total					



Labor Roadshow IV

Virtual event offered by the Ag Workforce Development Council

12 PM EDT via Zoom November 18, 19, 20, 23, 24

New York Labor Road Show IV is an opportunity to learn about regulation changes and how to best position your business for compliance and success. Cost is \$55 per person to attend all five webinars and to receive links to the webinar recordings. Register at <u>tinyurl.com/</u> <u>LaborRoadshowIV</u>.

Topics

- FLFLPA overtime and day-of-rest updates
- New NY permanent sick leave law and insurance requirements
- Paid family leave, disability, and worker's compensation
- Union education for farm
 managers
- FLFLPA employee housing requirements
- Sexual harassment prevention training requirements
- COVID-19 and farm workforce health

Virtual Event November 18 to 24

Featured Speakers

- Elizabeth Bihn, Ph.D., Cornell
 Institute for Food Safety
- Libby Eiholzer, Cornell
 Cooperative Extension
- Neil Gilberg, Advocate for Business, New York Worker's Compensation Board
- Kali Kniel, Ph.D., Professor of Microbial Food Safety, University of Delaware
- Jeanette Lazelle and Caylin Gwise, Division of Immigrant Policies and Affairs, NYS Department of Labor
- Steven Martin, Chief Sanitarian, NYS Department of Health
- Charles Palmer, Partner, Michael Best & Friedrich LLP
- Richard Stup, Ph.D., Cornell Ag Workforce Development

Program Details

A series of five one to two-hour webinars will be held online through Zoom at noon on November 18, 19, 20, 23, and 24. Cost is \$55 per person to attend all five webinars and to receive links to the webinar recordings.

Ag Workforce Development Council

NEDPA, Cayuga Marketing, AgriMark, Upstate Niagara, New York Farm Bureau, New York Vegetable Growers Association, New York Animal Ag Coalition, Agri-Placement Services, New York Horticultural Society, Dairy Farmers of America, Farm Credit East, Gray & Oscar LLC, Cornell Cooperative Extension, Cornell Agricultural Workforce Development

agworkforce.cals.cornell.edu

Cornell Cooperative Extension Capital Area Agricultural & Horticultural Program



Navigating Farm Family Relationships During Business Succession Planning

November 5, 2020 7:00 - 8:15 PM EST

Online via Zoom.

Register: <u>https://tinyurl.com/NavigatingFarmFamilyZoom</u> \$5.00 per farm



Farming with family members can be one of the most emotionally taxing experiences a person may encounter, especially when familial relationships get in the way of managing and leading the business. A Northeast farmer once jokingly said, "Working with family should be against the law."

Please join Cornell Cooperative Extension Albany County and the Capital Area Ag & Hort Program's Farm Business Management Educator Dayton Maxwell, Chris Tauzel of the New York State Agricultural Mediation Program and members of NY FarmNet's staff to learn how families can improve relationships to facilitate succession planning and long-term business continuation.

Program activities are supported by and coordinated with NYSAMP and NY Farm Net.



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Farm Business

Coronavirus Food Assistance Program 2 Applications are Open

The USDA FSA has announced that a second round of Coronavirus Food Assistance Program (CFAP) funding is available to farmers who are facing market disruptions and costs due to COVID-19. Applications for CFAP 2 are open from September 21 through December 11, 2020.

Dozens of commodities (such as beef, corn, soybeans, dairy, etc...) are eligible for coverage. According to the USDA Farmers.Gov website, *"payments for cow milk will be equal to the sum of the following:*

- The producer's total actual milk production from April 1, 2020, to August 31, 2020, multiplied by the payment \$1.20 per hundredweight AND
- The producer's estimated milk production from September 1, 2020, to December 31, 2020, based on the daily average production from April 1, 2020, through August 31, 2020, multiplied by 122, multiplied by a payment rate of \$1.20 per hundredweight."

For more information, visit: <u>https://www.farmers.gov/cfap/</u>. To apply, click here: <u>https://www.farmers.gov/cfap/apply</u>, or reach out to your local USDA FSA office.

Enrollment for Dairy Margin Coverage is Open

The USDA FSA has announced that enrollment for the Dairy Margin Coverage (DMC) program is open from Oct 13, 2020, until Dec 11, 2020. According to the USDA FSA website: "The 2018 Farm Bill authorized the new Dairy Margin Coverage (DMC) program, which is a voluntary risk management program for dairy producers. DMC replaces the Margin Protection Program for Dairy (MPP-Dairy). DMC continues to offer protection to dairy producers when the difference between the all milk price and the average feed price (the margin) falls below a certain dollar amount selected by the producer.

To participate in DMC, dairy producers:

- Select a coverage level ranging from \$4.00 to \$9.50 per cwt, in \$0.50 increments
- Select a coverage percentage of the dairy operation's production history ranging from 5 percent to 95 percent, in 5 percent increments

Producers have the choice to lock in coverage levels until 2023 and receive a 25 percent discount on their DMC premiums. Dairy operations who paid MPP-Dairy premiums during any calendar year from 2014 through 2017 may be eligible to receive a repayment for part of the premiums paid into the program. Through September 20, 2019, an operation either can elect to receive 50 percent of the repayment amount as a cash refund or take 75 percent of the amount as a credit that can be used toward premiums for DMC."

According to the FSA, about half of the dairy operations with established production history are enrolled in the DMC program, with an average of about \$14, 592 to be paid to each operation. In New York state specifically, only about 29% are enrolled, with an average expected payment of about \$12,781 per operation.

The program offers a decision tool to help individual farmers decide which coverage level is best for their operation. Check out the tool at: <u>https://www.fsa.usda.gov/programs-and-services/farm-bill/farm-safety-net/dairy-programs/dmc-decision-tool/index</u>. For more information, visit the USDA FSA Dairy Margin Coverage website: <u>https://www.fsa.usda.gov/programs-and-services/dairy-margin-coverage-program/index</u>.



Cornell Cooperative Extension

Capital Area Agricultural & Horticultural Program



PRICE RISK MANAGEMENT FOR DAIRY FARMERS

November 3 & 10, 2020 7:00 - 9:00 PM EST

Online via Zoom.

Register: https://tinyurl.com/PriceRiskMgtDairyFarmers

\$10.00 per farm for both sessions

MANAGE YOUR MILK PRICE

Following the abrupt downturn in milk markets during the spring and summer of 2020 and nearly an entire year of lower-than-expected milk prices resulting from the global pandemic, dairy farmers have a renewed interest in managing the price side of the business.

Please join CCE Capital Area Ag & Hort Program's Farm Business Management Educator Dayton Maxwell, FSA Executive Director David Holck, Tristan Peterson from Crop Growers Insurance, and Dr. Chris Wolf of Cornell University for an informative, fun, and educational program.

November 3, 2020

- Dairy Margin Coverage David Holck, Farm Service Agency
- Forward Contracting and Such, Part 1 Dr. Chris Wolf, Cornell University
- Determining if Risk Management is Right for My Farm Dayton Maxwell, CCE CAAHP

November 10, 2020

- Dairy Revenue Protection Tristan Peterson, Crop Growers Insurance
- Forward Contracting and Such, Part 2 Dr. Chris Wolf, Cornell University
- Forward Contracting Dairy Farmer Experience Dan Sheldon, Woody Hill Farms, Salem, NY

Program activities are supported by and coordinated with Cornell's Pro-Dairy Program and NY Farm Net.





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CCE North Country Regional Ag Team 203 North Hamilton Street Watertown, New York 13601

What's Happening in the Ag Community

Due to COVID-19 social distance restrictions, all in-person CCE NCRAT programs have been postponed until further notice. Several virtual programs will be offered through the Fall and Winter. Also, check out our CCE NCRAT Blog and YouTube channel for up to date information and content.

Online Feeder School, Nov 3rd and 5th (English) or Nov 10th and 12th (Spanish); see page 10 for more information.

Price Risk Management for Dairy Farmers, November 3 and 10, 2020; see page 17 for more information.

Navigating Farm Family Relationships During Business Succession Planning, November 5th, 2020; see page 14 for more information.

Livestock & Whole Farm Risk Management Awareness, November 17th, 2020; see page 6 for more information.

Fireside Chats; see page 9 for more information.

Labor Roadshow, November 18, 19, 20, 23, 24, 2020; see page 13 for more information.

Dairy Day, January 12-15th, 2020; see page 5 for more information.

Save the Date! 2021 Becker Forum - Farm Labor: Time of Change, January 11, 2021.

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