Cornell Cooperative Extension
South Central NY Dairy and Field Crops Program
Broome | Cayuga | Chemung | Cortland | Tioga | Tompkins
DAIRY & FIELD CROPS DIGEST
Fall 2025

Late season forage considerations for 2025

By Joe Lawerence, Dairy Forage Systems Specialist, PRODAIRY e-Leader, Aug 15, 2025.

The challenges of the 2025 growing season continue with questions about adequate quantity and quality of forages to meet the needs of dairy herds in the coming year.

As we look for a strong finish to the growing season to alleviate some of these challenges it is important to assess your forage situation and take steps to meet the forage needs of the herd. There are a number of resources on the PRO-DAIRY Forage Management webpage that may be useful when working with your farm team on assessing your forage situation.

HAY CROPS

Weather challenges around first cutting resulted in large harvest of lower quality hay for some farms. Understanding the nutritional value of hay crops in inventory will be important to determining additional forage needs.

Focusing on high quality forages from remaining hay harvest and taking steps to store these higher quality forages in a way that will allow for their use for the right group of animals on the farm can alleviate some of the challenges for the lower quality first cutting. At this point in the season, an August seeding of oats can provide additional tonnage of a high quality forage going into the winter months.

In looking ahead to next spring, planting additional acres of winter annual "cover crop" forages such as winter rye or triticale can provide additional high-quality feed early in the spring. In northern climates reliance on winter forages can be a challenge as spring weather conditions will play a major role in the feasibility of successfully harvesting these additional forage acres. Planning will be needed this winter to implement a plan for harvest that will not negatively impact the critical timing of other spring activities on the farm from manure spreading, to corn planting to first cutting.

CORN SILAGE

The variability of the corn crop will effectively create two different "cuttings" for some farms. To make the most of this challenging situation it will be important to consider storage and management options to best utilize the earlier corn which should be able to reach proper maturity with good nutritional value. The later corn, which may need to be harvested at an immature stage can still have value for certain groups of animals on the farm but needs to be managed separately.

In tracking corn silage progress and predicting approximate harvest timing, growing degree days (GDD's) can be helpful. The Cornell Climate Smart Farming website offers a useful growing degree calculator tool which can be used to retrieve growing degree day data for your exact location. With the user able to select the date to begin tracking. Using planting date or tasseling date can both be helpful for corn silage; however, it is important that other growing environment factors affect the corn crops ability to utilize GDD's and for this reason not all GDD's are create equal in advancing the crop. Utilize GDD's as an "early warning" system and then ground truth these estimates by visiting fields and staging the crop.

Corn silage that is harvest at an immature stage can also pose other challenges with storage. Consider impacts to your leachate collection system and work with your farm advisors on assuring best practices for building and managing bunk silos and piles.

GRAIN CROPS FOR FORAGE

Late planted corn originally intended for grain may not make it may be an option for additional corn silage. Recognizing that in these cases this may still result in immature corn silage, the same considerations above should be considered. It is very difficult to price immature corn silage.

There are numerous strategies for pricing standing forages, all with their advantages and disadvantages. Ultimately, the buyer and seller need to arrive at what they feel is a fair price based on the feed value of the crop and potential alternative uses. One very simple but effective approach for pricing "normal" corn silage standing in the field is multiplying the market price per bushel of corn by a factor of seven or eight to determine a price per wet ton of corn silage. This would be for a silage with a dry matter content in the mid-30's.

Prices should be adjusted for silage that is significantly wetter. When addressing immature corn silage, again strategies vary but discount factors of 10 to 20 percent of often used off the price of the "normal" corn silage to account for the lower starch content and other potential challenges with storing and managing the immature corn.

PRODAIRY Education & Applied Research

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, Cayuga, Cortland, Chemung, 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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We put knowledge to work in pursuit of economic vitality, ecological sustainability, and social well-being. We bring local experience and research-based solutions together, helping our families and our community thrive in a rapidly changing world.

WELCOME

Introducing Tatum Langworthy as the new Administrative Assistant for the South Central New York Dairy and Field Crops Team. Tatum was born and raised on a 3rd generation farm in Northern New York. Tatum was the administrative assistant for the North Country Regional Ag Team for many years, so she comes with agricultural knowledge and looks forward to getting to know you.

SAVE THE DATE

FALL FARM TOURS

Cayuga County 10/29 – Spruce Haven, Union Springs AM, Dumond Farms, Union Springs PM

Learn about the fantastic partnership between DuMond and Spruce Haven Dairy Farm. Hear from both farmers about their soil health practices that include cover cropping, reduced tillage, precision nutrient management and producing high-quality grain feed for local dairy animals. DuMond and Spruce Haven have worked together researching and testing applying manure into a standing corn crop utilizing the manure as a later season nutrient source for standing corn.

Spruce Haven Farm milks around 2,000 cows bedded on sand and has been a pioneer of novel practices to help manage their manure and capture value from the nutrients it contains.

Cortland County 11/5 – Riverside Dairy, Cincinnatus AM, Fouts Farm, Groton PM

Fouts farm

- 700 cow lactating facility with 3 row barns, drovers alley and mattresses
- brand new millking facility, double 15 parlor expandable to 20 with basement built in 2025
- special highlights of hospital area and foot bath setup

Riverside dairy

- Expansion from a few hundred cows in 2009 to housing over 1600 today, with upgrades in manure storage, parlors, calves, direct loading milk, feed storage and more
- 1425 cow lactating facility with 550-cow 6- row sand bedded freestall barn built in 2014
- updated side by side double 9 parabone parlors
- power ventilated calf barn built in 2023 housing newborn calves
- Dorm style Employee housing built in 2021
- Aggressive beef x dairy breeding strategy

Janice and Betsy want to extend sincere gratitude to Donette Griffith for her dedicated time as administrative assistant to the team over the last several years. Her attention to detail, warm and welcoming manner and cheerful attitude will be missed greatly! We wish her congratulations in attaining her Masters of Teaching and success in her full time teaching position!

Janice and Betsy also want to recognize Ron Kuck for his years of dedication to Cooperative Extension and the dairy industry. Ron has shared his decades of experience in the dairy industry with hundreds of farmers, and his breadth of knowledge in the industry is impressive. As an extended member of our dairy team, Ron's dedication to farmers and extension's mission will be missed as his last month with CCE Cayuga comes to an end. We thank Ron for his efforts of introducing the team to Cayuga dairy farmers, always being willing to lend a hand with events, and time spent thinking about the best ways to offer extension program to our farmers. We will miss his quiet leadership at extension, but know he is just a phone call away! See his farewell message below:

A Note from CCE Cayuga's Ron Kuck
August 29 will be my last day at CCE Cayuga. I would like to thank all the producers and Ag professionals in Cayuga County for their support and fellowship. I will continue my work with NY Farm Net and as a Field Enumerator for USDA National AG Statistics Service.
If you have a question, concerns or need a contact number please don't hesitate to reach out to me either by phone/text 315-704-8810 or email rak76@cornell.

Wednesday, September 10, 2025
5:30 PM - 7:30 PM

Join us for an engaging, hands-on pasture walk designed for horse owners, managers, and anyone who cares for equine pastures. You will learn how to identify and evaluate forage quality for equine health, practical strategies for rotational grazing that protect soil structure, improve water management, and support long-term pasture productivity. We'll also discuss techniques for refurbishing tired pastures—from reseeding to weed control—so your fields can thrive for years to come!

Speakers include Laynee Glezen from Poulin Grain, Justin Puglisi from Soil and Water, and Janice Degni from South Central NY Field Crops and Diary Program.

Register
https://pub.cce.cornell.edu/event_registration/main/events_landing.cfm?event=EquinePatureWalk_203

Contact
Linnea Depue
Director of Agriculture
lmm333@cornell.edu 607-773-3300

Thursday, September 11th, 2025
6-8pm

Highlights:
Grazing a small beef herd on 17 acres
Pasture management, pasture species,
Supplementing pasture with difficult weather patterns
(drought & drowning)
Strategic Handling Chute
Design of a Feeding Pad to minimize mud and reduce feed loss

Host Jeff Benjamin will share his experiences.

Hosted by: Hill Top Maple Farm Benjamin Family
Located at: 433 Parrot Rd., Cayuta, NY

This is a free event To Pre-register visit: https://forms.office.com/r/8AsyVcRQti

Contact
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Staging Corn Maturity for Harvest

By Janice Degni, Regional Field Crop Specialist

When will your corn be ready? There were early plantings and late planting this year and maturity in the field is following suit. Sixty days, that's the length of time, on average, that it takes for corn silage to mature from silking (pollination) to black layer (physiological maturity). We use ½ milkline as the indicator to start checking whole plant moisture. Typically in a dry year whole plant moistures run dryer than milk line alone would indicate. At 1/4 milkline, we expect DM to be about 35%. Seventy percent moisture is the long-term accepted target for beginning harvest for bunks, but consideration needs to be given to your farm storage. Nutritionists are encouraging targeting higher dry matters to increase starch levels. It's a balancing act to strike the DM where you can pack well and preserve maximum nutrients. Bunk silos pack better at the top of the range, while uprights may have excessive seepage above 68% moisture (See Table 1). Whole plant dry matter samples will run 2-3 points above actual field conditions (that is the corn will be wetter). Knowing the maturity of your crop and how many days or weeks it takes to harvest allows you to target the moisture for when to start harvest. (See Table 2) Moisture will typically decrease by .5-1 point/day, but is weather dependent.

Table 1. Target Crop DM Levels for Vertical Silage Systems	
Oxygen limiting structure	
Corn silage	40-65% DM [35-60% moisture]
Conventional Concrete & Stave Structure	
Corn Silage :	
Under 60 feet	32-36% DM [64-68% moisture]
Over 60 feet	Increase 2% DM per 10 ft vertical height
Source: Mike Hutjens, U of Illinois, Urbana. http://qualitysilage.com/wp-content/themes/twentyten/PDF/TowerSiloManagement.pdf	

Where are we at this season with Growing Degree Days (GDD)?

I ran GDD totals from May 18-Aug 25 for four representative sites across the region: Auburn, Freeville, Waverly, and Whitney Point. The data is summarized from official weather stations. The Waverly station had missing data for 4 days in August. I used the average daily accumulation for calculating monthly totals. You can access the tables here: https://nydairyadmin.cce.cornell.edu/uploads/doc_1135.pdf

Using the Climate Smart Farming Growing Degree Day Calculator, we can estimate how the season will progress. As a general placemark I'm using 2000 GDD as the target for reaching harvest. Your harvest timing will need to be adjusted for your maturity groups. You can use this calculator for the fields on your farm. You select them on map and the program provides the graph predicting season GDD totals.

The following graphics show the predicted dates to reach 2000 GDD's across the four selected locations that cover our six counties.

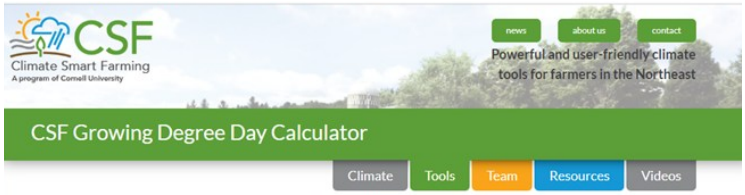
TABLE 2.
Influence of Corn Maturity on Grain Yield, Whole Plant Silage Yield and Moisture Content

			% Max Yield		% Moisture	
Maturity Stage	**Avg cal Days To Maturity**	**GDU to Maturity**	**Grain**	**Whole Plant**	**Grain**	**Whole Plant**
Silk	50-55	1100-1200	0	50-55	---	80-85
Blister	40-45	875-975	0-10	55-60	85-95	80-85
Late Milk	30-35	650-750	30-50	65-75	60-80	75-80
Early Dent	20-25	425-525	60-75	75-85	50-55	70-75
Full Dent (1/2 Milkline)	10-15	200-300	90-95	100	35-40	65-70
Blacklayer	0	0	100	95-100	25-35	55-65

Assumes 20 GDU/day to maturity.
Adapted from Carter, P.R. 1993. Pioneer Hi-Bred International, Inc..

Approximate GDD Accumulation for Stages of Corn Development		
Growth Stage	**80 day hybrid**	**110 day hybrid**
Emergence	110	110
Silk Stage	1,100	1,400
½ Milk Line	1,800	2,400
Maturity (black layer)	1,900	2,500

Fall -First Frost Dates (2009-2024)			
Site	Earliest	**Average**	**Latest**
Auburn	10/12	10/23	11/08
Freeville	9/17	10/9	10/28
Waverly	10/6	10/18	11/04
Whitney Point	9/19	10/18	11/3
Source: Climod 2 Weather data. 2009-2021 Summary. http://climod2.nrcc.cornell.edu/			



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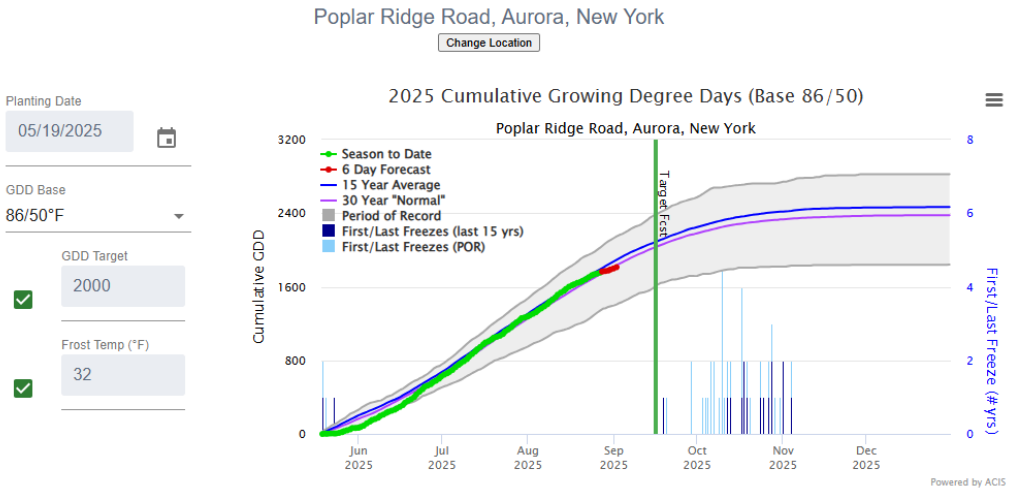
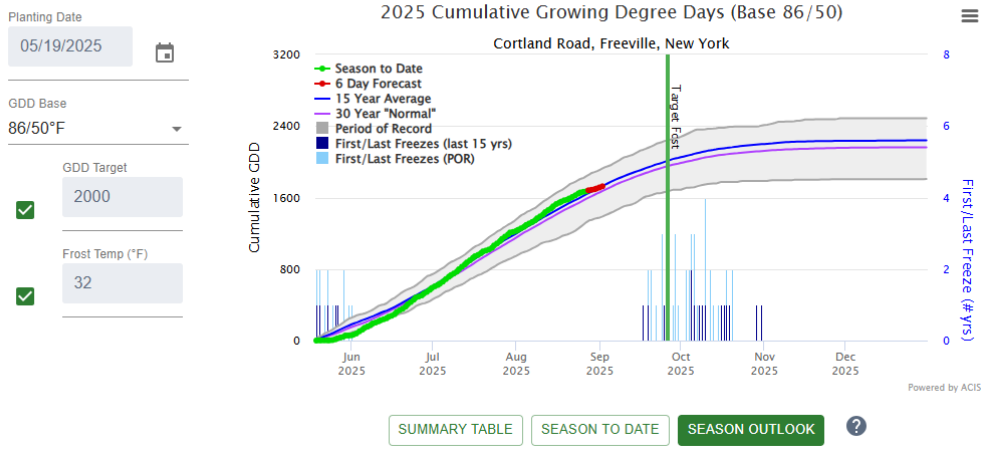
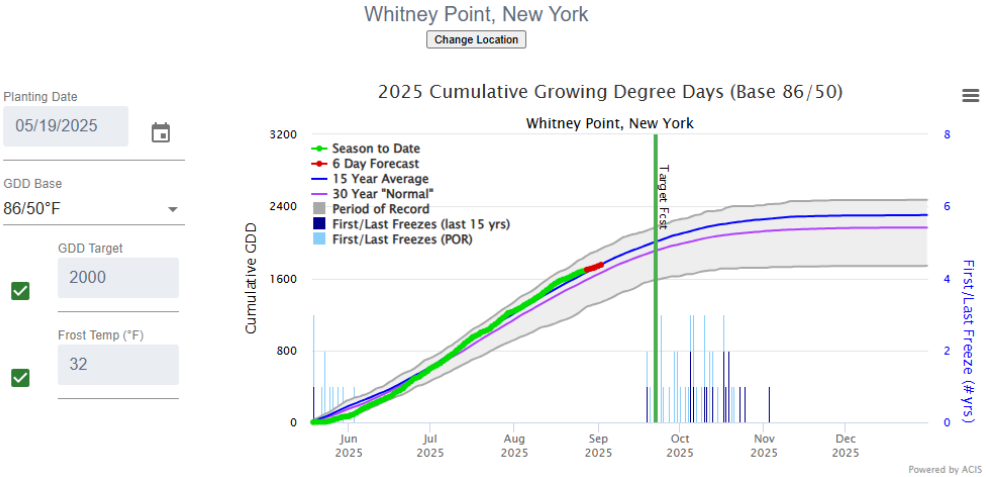
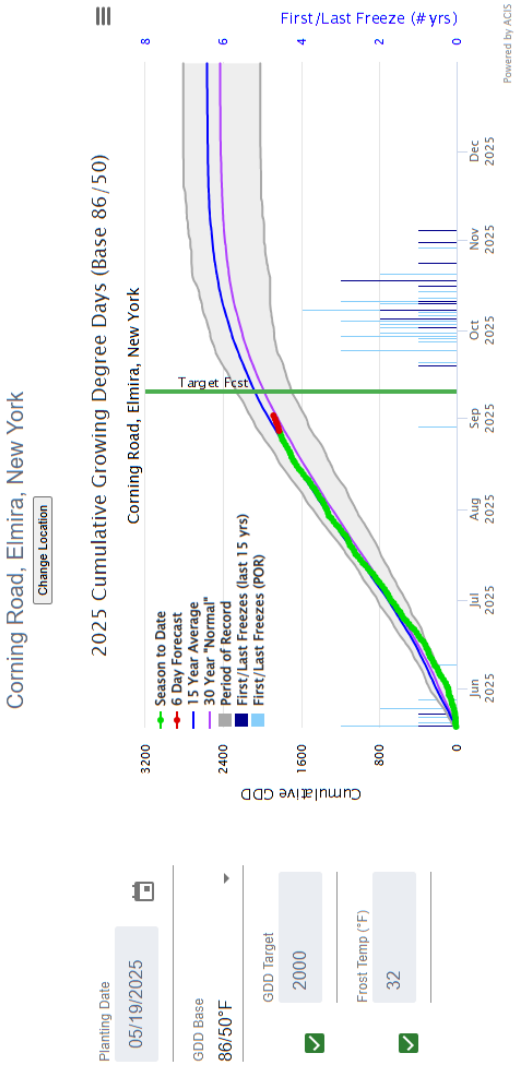








Cropping Notes

By Janice Degni, Area Extension Field Crops Specialist

Besides our cold/excessively wet planting windows and mid-season dry to excessively dry conditions, other in-season challenges included bouts of harsh, damaging hail, both early and late season, selected fields with voracious armyworm feeding in hayfields and corn. Leaf rolling and lower leaves firing in corn, early because of dry conditions. The benefits from mid-season nitrogen applications were reduced in fields that were too dry for the plants to take up the nitrogen.

An odd condition of tight leaf wrap around the tassel didn't allow them to emerge in sync with other tassels and the fresh silks so we may see poor pollination in those fields (Fig 5&6). The soybean crop was slow to close the row. It seems to have shown less drought stress than corn. Plants are podded up well. Now the objective is to fill out the pods. The recent rains will help with that. Figures 2-10 taken by Janice D on August 22.

Figure 1 Severe hail damage in corn.
Photos provided by Joe Lawrence, PRODAIRY

Figure 2- heavy armyworm feeding in corn

Figure 3—Armyworm sheltering in the whorl with heavy frass deposits

Figure 4 Drought stressed corn with lower leaves firing early.

Figure 10—early dented ear 8/22 w soft kernels

Figure 5 -Tassel tightly wrapped in upper leaf

Figure 6 - fresh silk awaiting pollen.

Figure 7– Soybeans mid -August

Figure 8– Soybeans mid -August-many pods to fill

Figure 9—An average yielding corn Field for our region.

Don't Miss the Fall Dairy Management Topics! Offered in English and Spanish!

Cornell in collaboration with the University of Wisconsin-Madison offers a dairy webinar series only in Spanish. Applicable and practical topics include:

Leadership	**Calf care**
Hoof Health	**Fiber**
Workforce training	**Reproduction**
Forage Quality	**Milking Systems**
Cow Comfort	

The webinar begins next Wednesday, September 3rd , and runs until November 5th. Every Wednesday at 2 pm CST—1pm EST.

Registration (Spanish):
https://dairy.extension.wisc.edu/el-break-info-lechero/

More information (English):
https://dairy.extension.wisc.edu/2025/08/21/dairy-spanish-webinar-series-el-break-info-lechero-2025-announced/

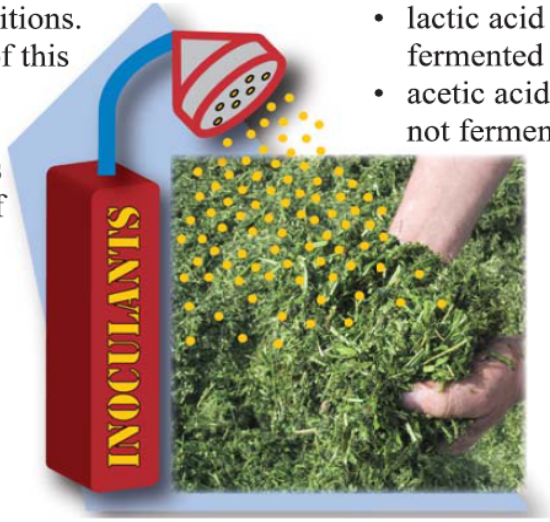
Fact sheet

U.S. Dairy Forage Research Center
USDA-Agricultural Research Service
Madison, Wisconsin

Silage inoculants: What the research tells us about when and how to use them

With all of the variables – crop varieties, weather, packing density, speed of covering – no two silage crops are ever the same, which is why scientists are reluctant to give blanket statements regarding when and how to use silage inoculants. A more favorable and scientific response is, "It depends."

Through the years, research has answered some questions about the effect of silage inoculants under various management and conditions. What follows is an overview of this research and some general recommendations. But first, a review on how silage inoculants work and the different types of inoculants.



In a nutshell, silage inoculants work by shifting silage fermentation in a direction that better preserves the crop. That happens when the lactic acid bacteria in the inoculant overwhelm the natural lactic acid bacteria on the crop. However, even the best inoculants are not always successful just as the best racehorse may not always win.

Two types: homofermenters and heterofermenters

There are now two main types of silage inoculants: the traditional homofermentative types, such as *Lactobacillus plantarum*, the *Pediococcus* species, and *Enterococcus faecium*; and the more recently used heterofermentative bacteria, *Lactobacillus buchneri*. A third type, combining homofermenters with *L. buchneri*, is beginning to be marketed.

Homofermenters get their name because they turn 6-carbon sugar molecules into one product – lactic acid. Heterofermenters produce multiple products. For example, they may turn one 6-carbon sugar into one lactic acid + one acetic acid + carbon dioxide (CO_2); or turn one 6-carbon sugar into one lactic acid + one ethanol + CO_2; or turn one lactic acid into one acetic acid + CO_2.

These different end products of fermentation can be compared as follows:

- lactic acid – strong acid, weak spoilage inhibitor, fermented by bacteria in the rumen;
- acetic acid – weak acid, good spoilage inhibitor, not fermented in the rumen;
- ethanol – neutral, poor spoilage inhibitor, partially fermented in the rumen;
- CO_2 (carbon dioxide) – lost dry matter.

So the type of inoculant that should be used depends partially on the goal. If you want to preserve crop quality as close as possible to that of the crop at ensiling, use an inoculant that maximizes lactic acid production, a homofermenter. If you want silage that doesn't heat, use an inoculant that produces acetic acid, which is the heterofermenter, *L. buchneri*.

Studies with homofermenters

A review of published studies by Muck and Kung back in 1997 resulted in data that are still useful today in showing the effects of adding homofermentative inoculants to silage. Regarding pH, it was lowered on average, but not all of the time; and it lowered the pH more often in hay crops versus whole grain silages. The percentage of trials in which the pH dropped was: alfalfa silage, 58 percent; grass silage, 63 percent; corn silage, 43 percent; and small grain silage, 31 percent.

In terms of dry matter recovery, it was improved in 38 percent of the trials. In the trials that showed an improvement in dry matter recovery, it improved

Click HERE to continue reading.

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Inside this Issue:

Upcoming Events Calendar

Sept. 3—Nov 5 Every Wednesday at 2 pm CST (1 pm EST).	**Fall Dairy Management Topics Weekly Webinar** Details and registration p. 6.
Sept. 10 5:30-7:30 pm Heavenly Acres 48 Anderson Road Whitney Point, 13862	**Broome County Pasture Walk–Featuring Equine,** see page 3 for more info.
Sept. 11 6:00-8:00 pm Hilltop Maple Farm 433 Parrott Road, Cayuta	**Chemung Pasture Walk—Featuring a Beef Herd,** see page 3 for more info.
Oct. 29—Cayuga County 5004 White Rd, Union Springs	**Fall Dairy Tours** More details to be posted on webpage calendar **Spruce Haven**, Union Springs AM, **Dumond Farms**, Union Springs PM
Nov 5-Cortland County	**Fall Dairy Tours:** Riverside Dairy, Cincinnatus AM, Fouts Farm, Groton PM
Nov. 15th 10 am-3 pm 55 Foland Rd., Binghamton 13903	**Beef Quality Assurance Training (BQA)** Registration: https://reg.cce.cornell.edu/BQAtraining_203 Program Details: https://ccebroomecounty.com/events/2025/11/15/beef-quality-assurance-training

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