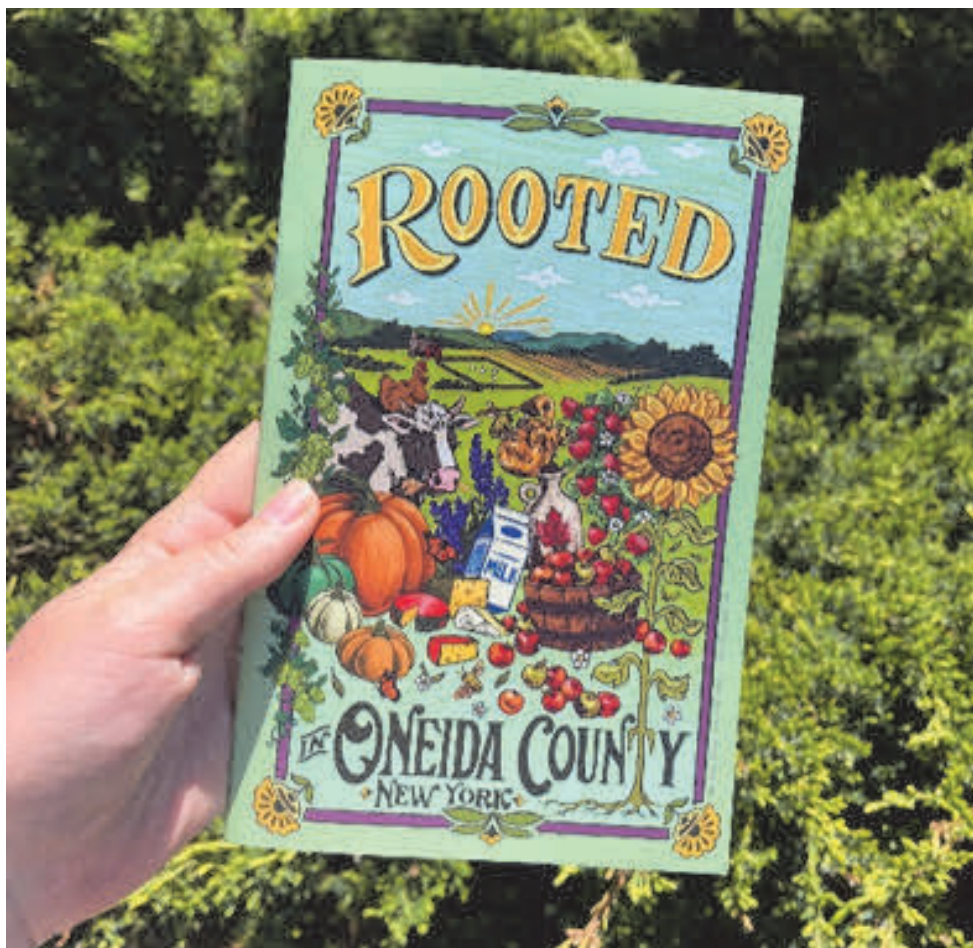


# Farm Flash



*Rooted in Oneida County cover page illustration by local Utica artist, Retro Sorrento.*

# July 2026

# The Ag Team

**Jennifer Reynolds - Ag Team Lead**

jl457@cornell.edu (315) 736-3394 ext. 111

**Carol Watkins - AED Team Lead**

cap49@cornell.edu (315) 736-3394 ext. 231

**Amanda Vinci - Operations Coordinator**

als354@cornell.edu (315) 736-3394 ext. 253

**Marylynn Collins - Dairy & Livestock Educator**

mrm7@cornell.edu (315) 736-3394 ext. 132

**Holly Wise - Consumer Horticulture**

hlw2@cornell.edu (315) 736-3394 ext. 125

**Audra Benincasa - OCPM Online Coordinator**

ajb489@cornell.edu (315) 736-3394 ext. 266

**Alex Harrington - Communications Manager**

ash273@cornell.edu (315) 736-3394 ext. 255

**Madi Engel - Ag Educator**

mee67@cornell.edu (315) 736-3394 ext. 109

**Carl Mierek - Food System Specialist**

cm2273@cornell.edu (315) 736-3394 ext. 120

**Matt Volz - Ag Community Educator**

mcv54@cornell.edu (315) 736-3394 ext. 177

**JB Riffle - OCPM and Small Food  
Manufacturing Manager**

jr2533@cornell.edu (315) 736-3394 ext. 103

# Upcoming Events

## **Pasture Walk**

Wednesday, July 15 - 6:00 pm to 8:00 pm  
(Programming starts promptly at 6:00 pm)

The Owens Farm - Address Upon Registration

Come out and learn how this multi-species grazing operation has approached regenerative agriculture with determination and patience. Observe the benefits of revisiting the significance of native grasses and incorporating mortality composting into the land management. Discussion will also touch upon navigating hurdles when grazing in solar arrays.

Don't miss a demonstration of the rain simulator and the discussion on the relationship between soil health, water infiltration, and runoff in pasture and cropland scenarios. If you work the land and believe our existence is attributed to the top six inches of soil and the fact that it rains, you will benefit from attending this demonstration.

Please join us for a Pasture Walk and an engaging demonstration from the NY Soil Health Trailer. Register by contacting Marylynn by email at [mrm7@cornell.edu](mailto:mrm7@cornell.edu) or via text to 315.368.8603

# Upcoming Events

## Garden Open House

Wednesday, July 15 - 4:00 pm to 7:00 pm  
121 Second St Oriskany

Come and tour the beautiful Parker F. Scripture Botanical Gardens and stay to learn about everything we offer at CCE Oneida!

## Taste of CNY Vendors Wanted

The Taste of Central New York is to highlight foods and crafts that are prepared from locally sourced products, (not all products needs to be locally sourced). **The event runs from 10:00AM to 2:00PM on November 7, 2026 at North Star Orchards in Westmoreland, NY.** There is no fee to participate but Committee approval is required upon completion of your registration. Vendors are required to provide free samples of food and/or craft or an interactive experience.

If you are interested in attending as a vendor please scan the QR code or email Alex at ash273@cornell.edu for the registration link.



**Thank you to our sponsors!**  
**Farm Fest wouldn't be possible without your support!**

- Five County Ag Charity Fund
- Louis J. Gale & Son, Inc.
- Carolina Eastern-Vail, Inc.
- RAPP Dairy Nutrition, LLC
- Tom Burns for Cen-pe-co
- Lutz Feed Company
- DuPont Trucking
- Central New York Feeds
- Charles J. Husted
- J.C. Livestock
- Brown's Feed
- Richard Obreza Trucking
- Warner Sales & Service
- Lincoln Davies Co., Inc
- Fisher Farms
- Holtz-Nelson Dairy Consultant, LLC
- Mercer
- NBT Bank
- Oneida County Farm Bureau
- Oneida County Dairy Promotion
- Hood
- Dairy Farmers of America
- Clinton Tractor
- White's Farm Supply
- Hannaford
- Stewart's Shops
- SNP John Deere

# Thank you to DiNitto Farms in Marcy for hosting Farm Fest on May 29<sup>th</sup>!

510 Oneida County students from 26 classrooms had the opportunity to spend the day on a working dairy farm and visit educational stations that taught them all about the unique and diverse aspects of agriculture!





Jack Riffle joins Cornell Cooperative Extension of Oneida County as the Oneida County Public Market and Small Food Manufacturing Manager after serving as the executive director of the Farmers Market Federation of NY. He arrives with experience in community-driven food systems at the state-level and entrepreneurial experience as the founder of Local Foods Mohawk Valley, a local food collective based in Clinton that encourages community access to local food year-round and reduces farmers' opportunity costs of selling and marketing their products. He is particularly excited to facilitate the growth of the market vendors, conduct community outreach, and develop value-added foods with local producers. When he isn't at the market or behind a computer, he enjoys hiking and canoeing in the Adirondacks with his wife, coaching pickleball, playing chess, and walking his dog.

### **Oneida County Public Market**

Every Saturday from 9:00am to 1:00pm  
at Utica's Union Station - 321 Main St, Utica

## Meet New Ag Educator Matt Volz!



Hello Everyone! I'm very excited to be a part of the Ag Team and look forward to serving the needs of the community here in Oneida County. I've been a farmer and business owner since 2010. I have a broad base of experience in agriculture, including small-scale dairy, beef cattle, pigs, poultry, and produce. I consider myself a jack-of-many-trades in farming, with particular interest and experience with raw milk production, draft power, and local food. Please feel free to reach out to me at [mcv54@cornell.edu](mailto:mcv54@cornell.edu) or by phone (315) 736-3394 ext. 177 to introduce yourself or to ask for help.

Since 2021, the Upstate Downstate Project has focused on bridging the gap between Upstate New York's agricultural producers and the food needs of Downstate urban areas. In partnership with Cornell Cooperative Extension, Cornell University's Harvest New York, and local food hubs, the program has successfully expanded market opportunities for Upstate New York farmers by building cooperative relationships between agricultural producers and urban institutions in New York City. With over 400 Upstate New York farmers represented through partnerships with key food hubs such as Upstate Growers and Packers, Headwater Food Hub, and Grow NYC, the project has fostered a more efficient, cooperative food system.

At CCEOC, Carl Mierek helps match upstate agribusinesses with opportunities in the NYC regional food systems. If you would like to learn more about the program contact Carl at [cm2273@cornell.edu](mailto:cm2273@cornell.edu) or at (315) 736-3394 ext. 120.

# How Modernization and Technical Assistance are Transforming Dairy Farms

Kathryn Donovan, Regional Programs Manager,  
Northeast Dairy Business Innovation Center

**Melanie Harrison at Harrison's Homegrown, a dairy farm in Addison, Vermont, saw the writing on the wall.**

With rising costs, labor shortages, and subpar infrastructure, she and her husband, Patrick, had a choice: continue to patch it together hoping nothing drastic would happen, or take the plunge and make a sizable infrastructure upgrade that had the potential to relieve pressure on several aspects of their business at once.

They applied for a Dairy Farm Improvement and Modernization grant and received \$60,906 to make critical upgrades. With the funding, they replaced their 1979 double-4 herringbone milking parlor with a new double-7 parabone parlor. While the old parlor required two workers and nine hours of milking per day, the new parlor requires only one workers and has reduced milking hours by over 30%.

Not only did this project alleviate the challenges of limited labor, it also improved worker safety, herd health and milk yield. New automatic take-offs reduced repetitive stress for milkers and improved udder health for their heard of 180. Their cows are now averaging seven more pounds of milk per day, and somatic cell counts are decreasing.

The investment paid itself off within a year. The Harrison's savings on labor and electricity totaled over \$70,000 in the first year, and they were up \$33,000 in first-quarter revenue. The new setup improved quality of life for both workers and farmers, reducing burnout and turnover. "Patrick was spending an average of seven hours a day in the milking parlor himself, says Melanie. "As business owners, we need to have more time management-level tasks"

Technical Assistance is Key to Successful Dairy Farm Modernization. For smaller and midsize family farms, modernizing can feel overwhelming. Between daily fires to put out, the speed that technology changes, and worries that investments won't pay off, taking on a modernization project can feel like its own full-time job.

But if numbers aren't adding up, something needs to change. Farms are going out of business at an incredibly rapid pace: Vermont had 868 dairy farms in 2015 and by 2025 there were only 439; we have lost 50% of our dairy farms in just 10 years.

Adapting and modernizing are keys to maintaining farms in today's world. The good news is that modernization isn't a one-size fits all approach, nor do farmers need to have all the answers. Technical Assistance (TA) providers (example: Ag Educators at Extension Offices) can help farmers identify and tailor modernization projects to meet the needs of their operations. Just like farmers trust their nutritionist or vet to make critical health decisions, there are many other complex aspects to the overall business that need the same kind of attention and consideration. The big one is finances.

When farmers work with a technical assistance provider, such as extension specialists or farm viability experts, this added perspective and expertise supports farmers to better understand their bottom line, redefine business goals, and set up systems for tracking data that is useful in evaluating how management decisions are paying off. By understanding the true and ongoing conditions of their farm, farmers can make their best investment choices that are customized to them and responsive to what is happening on the ground.

This data-informed decision making can transform farms. Over the past five years, NE-DBIC has funded 200 dairy farm improvement projects. The most successful ones have embraced this data-centric approach with TA support.

While modernizing can mean investing in new technology, like robots, it doesn't have to. Straightforward equipment upgrades to aging bulk tanks, pipeline, or milking parlors greatly improve milk quality, cost savings, and labor efficiencies. Investments in cow comfort improve herd health and increase milk production and quality. Smaller, smarter tech investments can quickly pay for themselves. Many farms are adopting cow monitoring technology, which helps identify health issues before symptoms appear, accurately detect heats, and provide data on nutrition and heat stress. This technology reduces labor demands and allows farmers to make timely decisions, improving overall farm management.

For those struggling with labor shortages, robots can be a very effective investment. Feed-pushing robots can reduce feed waste and improve nutrient uptake; manure robots can work very effectively in some barns and keep cows cleaner and healthier; and milking robots can provide real-time milk component information and detect health issues.

In 98% of Modernization Projects funded through DBIC, farmers reports an improved outlook on their business' future after implementing their improvements. They reported lasting benefits in sales, revenue, and employee retention. Farmers who engaged with TA providers both in the development of their project and throughout the course of their project often maintained those relationships to identify and make additional improvements. By using data to identify areas for improvement, farms can make informed decisions that lead to better management and efficiency. The NE-DBIC values the importance of supporting small to midsized farms, helping them modernize and become more efficient to stay viable and improve financial health.

This fall, the next round of Dairy Farm Improvement and Modernization Grant will open. It's an excellent time for farmers interested in modernizing to start working with technical assistance providers to determine the best improvements for business. Grant for farm modernization will fund projects between \$15,000 - \$100,000. This program is in high demand and applicants who show engagement with a TA provider and clear data backed justifications for their desired modernization are prioritized for funds.

Learn more about  
this grant program  
online by scanning  
the QR Code!



**Save the Date - Taste of CNY**

Saturday, November 7 - 10:00 am to 2:00 pm  
North Star Orchards - Westmoreland

Food Sampling - Local Products for Sale -  
Children's Activities - Live Music -  
Fun for the Whole Family!

# Alternative Markets for NY Produce

Carl Mierek

**CALLING ALL FARMERS:** There are opportunities for more NY farmers to integrate themselves into the regional food system.

Research by Cornell economists has shown that dollars invested by the state to increase purchases from New York State growers are more than recouped by increased tax revenue and economic development. NYS has taken the initiative with statewide programs catalyzing local food procurement . The demand for NYS products and the pressure for distributors to carry them is opening the door for more farms to get involved.

## **Farm to School: Relearning Scratch Cooking**

In 2022, NYS passed a law that incentivizes school food authorities (SFAs) to increase their purchasing of NY farm products to 30% of their food budget. The 30% NY Initiative rewards SFAs that reach this threshold by increasing their reimbursement by \$0.19 per meal. While this doesn't seem like much, the boost in revenue is meant to offset any increased cost incurred by procuring more from farms within the state.

A challenge many school kitchens are now facing is the need to retool and train their staff to handle unprocessed farm products. This is something our Farm to School Educator at CCE Oneida, Madi, has made great strides on. NY farms are encouraged to participate in the formal bidding process and to reach out to local school districts to let them know of their product availability.

## **Executive Order 32: Investing in NY Farms**

Like the Farm to School initiative passed by State Legislature, Executive Order 32 signed by Governor Hochul in 2023 aims to increase procurement from NYS agribusiness by state agencies. The current goal is to purchase at least 25% New York State food products. This number will increase to 30% by the end of 2027. While the 30% NY Initiative applies K-12 students at public schools, this guidance extends demand for NY grown produce into SUNY and Community College dining services.

## **Food is Medicine: A Growing Opportunity for Specialty Crop Farmers**

In pilot programs across the country, insurance companies and nonprofits are funding programs that provide fresh produce to improve health outcomes. According to research by the Rockefeller Foundation, in NYS that could mean an additional 18,290 jobs from local spending and \$292 million in revenue for NYS farmers. These figures are based on the 2,298,000 patients with health conditions that could be alleviated by eating diets richer in locally grown fruits and vegetables.

The New York State Medicaid Section 1115 Demonstration Waiver allows for produce prescriptions and medically tailored meals prescribed by doctors to be covered by the state and federally funded Medicaid program. Health practitioners have demonstrated that these preventative health initiatives save taxpayers money in the long run and can be used to support agricultural economic development across the state.

## **Farm to Food Bank: Nourish NY and Increased Tax Credit**

This year's state budget increased the tax credit available for farmers donating to food pantries. The credit has increased from 25 to 50 percent of value with an increased cap from \$5,000 to \$20,000 per year. This shift presents a real opportunity for capturing the lost value of farm products destined for the waste stream.

But the market demand from emergency feeding efforts extends far beyond the off chance some produce has remained unsold. The Nourish New York Initiative was signed into law in 2021 and provides funding for food banks to purchase New York farm products. This year's budget has allocated \$55 million to the program. Some emergency feeding organizations like FeedingNYS, the Food Bank of CNY, and the Cooperstown Food Pantry are also buying directly from farmers from their own discretionary funds and grants.

The sum of these programs is an investment, both public and private, in the infrastructure and connections needed to strengthen the NYS food system. Supply lines cannot be built overnight, but through these incentive programs and dedicated work of individuals across the state, real change is happening. For more information contact Carl Mierek by email at [cm2273@cornell.edu](mailto:cm2273@cornell.edu) or by phone at (315) 736-3394 ext. 120.

# Waste Tires on Farm: With Change Comes Added Challenges

ML Collins

Covering the bunk after or between harvests is a necessary evil. Accumulating the necessary whole tires is slowly being phased out. The availability of side-walls or half tires offers a lighter, cleaner, and less mosquito-infested option. Coupled with the advantage of increased efficiencies when using a tire shooter (<https://midwestsidewalls.com/tire-shooter/>) and you've easily created another problem to resolve. What do you do with the whole waste tires you no longer need on the farm? I contacted Kathleen Prather with NY DEC Solid Waste Recovery and Medical Waste Section - Division of Materials Management to gain insight and suggestions into this growing dilemma. Read below for her comments. If you are interested in applying for a Beneficial Use Determination (BUD) please contact me at [mrm7@cornell.edu](mailto:mrm7@cornell.edu).

- If possible, whole tires could be altered (cut or hole-punched) at the farm with mobile equipment; this is an exempt activity under DEC regulation 6 NYCRR 361-6.2(c). A misunderstanding seems to exist that cut tires must be hole punched; 6 NYCRR 360.12(c)(2)(iv) states "**one** of the following" can be done including slicing off the sidewalls, punching drainage holes, or cutting the tire in half. Since 2023, even whole tires can continue to be used on tarps if stored under cover or stacked in a way to prevent standing water when not used on tarps.
- We (NY-DEC) do not offer grants or financial assistance to collect and recycle tires, though we have tried to utilize monies from the NYS New Tire Fee in the past to try to buy altering equipment for Soil & Water Conservation Districts and other non-profit or governmental entities, and run into logistical and regulatory obstacles, not to mention trying to provide grants for counties to hold Tire Amnesty Days for drop-off of tires by residents and farms. As I say, we've run into roadblocks but could continue to pursue these ideas.

- Old tires can be used under DEC beneficial use determinations (BUDs) to make retaining walls, when filled up with earth. Up to 150 tires can be used for such a purpose without any approval needed, for raised bed gardens, for bumpers to protect structures from moving equipment, etc. If the farmer wants to do a wall project with more tires, they should pursue a case-specific BUD. A wall taller than six feet should be designed by a professional engineer, for safety. Note that "fences or screening" made with tires cannot receive a BUD.

Solid Waste Regulation Excerpts:

## PART 360 GENERAL REQUIREMENTS

### Section 360.12 Beneficial Use

(b) Unacceptable uses. Wastes used in the following manner are not eligible for a beneficial use determination:... (3) the use of waste tires as fences or screening.

(c) Pre-determined beneficial uses.

(2) ...(iv) waste tires or passenger tire equivalents used to secure tarpaulins in common weather protection practices such as agricultural storage covers and salt pile protection, that meet the following requirements:

(a) are used in a single layer over the tarpaulin, or double layer of sidewall weights;

(b) are used in a second layer of tires to anchor edges, if needed, or double the number of sidewall weights; and

(c) the tires must meet one of the following:

(1) be cut in half;

(2) have one side wall removed and placed with the cut side facing down;

(3) have sufficient number of holes drilled in them to prevent retention of water; or

(4) if whole tires are used, the tires must be covered, arranged on the tread in close alignment, or otherwise stored in a manner to prevent retention of water unless they are being used to secure tarpaulins.

(v) 150 or fewer waste tires or tire equivalents at a single site for purposes such as retaining walls, decoration, playground components, bumper guards, manufactured products feedstock, and similar purposes;...

## Subpart 361-6 WASTE TIRE HANDLING AND RECOVERY FACILITIES

Section 361-6.2 Exempt facilities ... (c) The processing of waste tires at a farm by the owner of the farm for the purpose of producing a product which meets the beneficial use provisions of section 360.12(c)(2)(iv) of this Title.

# Exploring TN Visa Opportunities for Farm Labor

ML Collins

The Cornell Ag Workforce Development program recently held a lunchtime webinar addressing the TN Visa process for any farm operation looking to employ quality farm labor. The TN (Trade NAFTA) Visa program was established under the United States-Mexico-Canada Agreement (USMCA) to allow Canadian and Mexican citizens to seek employment in the U.S. in designated professions. The TN Visa program can be used in a multitude of sectors, not only in agriculture. Over the past ten years, participating candidates have overwhelmingly been from Mexico.

Farm owners looking to pursue this avenue must work with an agency familiar with the recruitment and qualifying processes. In New York, one example agency is Agri-Placement Services, Inc. Candidates seeking employment must be a citizen of either Mexico or Canada and be educated and trained in a specific field pertaining to the employment of choice. Working under the guidance of a hiring agency will help you by providing and fine-tuning specific job descriptions that are used to develop a petition which is used to grant final approval from the home country's government. Please note: The intent is to hire individuals with specific qualifications in the related field. These are not entry-level positions, which is why strongly written and well-defined job descriptions are an integral part to securing strong applicants.

There are of course fees involved for this service. A participant in the discussion, Shane St. Cyr of Adirondack Farm in Clinton County commented, "The benefits out weigh the costs." With limited farm labor and existing H-2A programs that leave dairy out of the equation, this program has the potential to bring value to your farm through educated and trained professionals.

# **Celebrating the Launch of *Rooted in Oneida County***

Madelyn Engel

May 30<sup>th</sup> saw the kickoff of this year's *Rooted in Oneida County Campaign* (formerly Harvest Oneida County), continuing its mission of promoting local agritourism and strengthening connections between consumers and the agricultural community. The collaborative initiative highlights the many public-facing farms and agribusinesses that welcome visitors throughout the year, showcasing the innovation and hard work that drive Oneida County agriculture.

*Rooted in Oneida County* encourages both residents and visitors alike to experience agriculture firsthand through activities like pick-your-own strawberries, exploring a sugarbush, or cutting a Christmas tree for the holidays. Beyond providing family-friendly recreation, agritourism offers valuable opportunities for the public to connect with the land, learn about food production, and meet the farmers and families who make it all possible.

The annual *Rooted* guide features participating agritourism destinations, event highlights, a countywide scavenger hunt, and other resources designed to help visitors explore local agriculture. Printed booklets are available at participating farms, the Oneida County Public Market, and events hosted by CCE Oneida and Oneida County Tourism throughout the growing seasons.

An online version of of the guide can be found on the CCE Oneida Website by scanning the QR Code. Check it out and stay Loyal to Local this summer!



# RCC Silage Pad at Tiashoke Farms

K. Bliss, T. Tyron, M. Blair, D. Maxwell, D. Orr, A. Weiss, T. Ziehm, J.P. Oliver - Cornell CALS - Dairy Environmental Systems

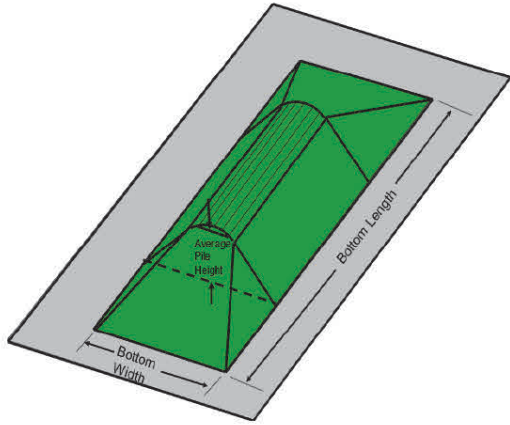
**TABLE 1.** Project Summary

Project type	Silage pad
Project dimensions	182,000 sq. ft.
Project location	Tiashoke Farms, Buskirk, N.Y.
Date installed	Sept - Oct 2025
Material	Roller Compacted Concrete, 8" thick
Installation Company	Wayne Companies/Florida RCC

Tiashoke Farms milks approximately 1,200 cows and farms over 2,000 acres in Buskirk, Washington County, New York. They are in the process of expanding their herd to 1,700 milk cows. To prepare for this expansion, they have started expanding cattle housing and increased their feed storage capacity. This specific project included the addition of a 182,000 sq. ft., eight-inch-thick Roller Compacted Concrete (RCC) silage feed pad during September to October 2025. This is perhaps the first RCC agricultural project in New York. This case study evaluates RCC material in cost, durability, and installation time compared to Conventional Concrete (CC) and Hot Mix Asphalt (HMA).

**What is RCC?** Roller Compacted Concrete (RCC) is a construction material invented in the 1930s. RCC is a non-reinforced concrete pavement that is placed using bulldozers or in this case, asphalt-type pavers, then compacted with vibratory rollers. This compaction both forms and strengthens RCC. This material has primarily been used for pavements, beef feedlots and facilities, and water resource systems including dams and spillways. Though made of the same basic ingredients as conventional concrete including aggregates, cement, and chemical admixture, a key difference is the stiff, no slump mix. This material is very dry, usually around 5% moisture for best performance, and requires a continuous mixing plant (pugmill) and extensive roller compaction. Moisture is crucial for the performance of RCC, and water is typically incorporated by wetting the strong aggregate and metered addition into the pugmill. The recorded benefits of using RCC include low cost, quick installation, strength and durability, long life of pavement, minimal maintenance, and resistance to fuel spills.

**Silage Pad Project** - A Silage Feed Pad is a slab of material equipped with drainage to store silage and other feed. Construction of a feed pad includes standard requirements of Site Preparation and a Design Consultant regardless of material. The site at Tiashoke Farms was graded and leveled with 12 inches of gravel during July to August 2025. This site was dry, with neutral gravel soils so no pipe drainage was required. The pad is sloped to a low flow collector and vegetate treatment area (VTA) for leachate management. The silage pad itself was 182,198 sq. ft., eight inches thick, and designed to withstand heavy equipment use and corrosion from feed leachate.



**FIGURE 2.** Typical diagram of a Silage Pad<sup>3</sup>.

### RCC versus Conventional Concrete (CC) versus Hot Mix Asphalt (HMA)

**TABLE 2.** Cost breakdown and comparison of Silage Pad with RCC, CC and HMA.

	RCC	CC	HMA
<b>Total cost</b>	<b>\$1,270,752</b>	<b>\$1,936,652</b>	<b>\$1,309,152</b>
Cost/ sq. ft. - Total	\$7	\$11	\$7
Cost/ sq. ft. - Material	\$4	\$8	\$5
Installation and Materials	\$768,600	\$1,434,500	\$807,000
Site Preparation	\$465,592	\$465,592	\$465,592
Design Consultant	\$36,560	\$36,560	\$36,560
<b>Properties</b>			
Strength	4-6,000 psi	4,500 psi	—
Life Span	> 30 years	20-40 years	15-20 years
Resistance to Cracking	High	Medium	Low
Corrosion Resistance	High	Low	High
Installation Time	10 days	15 days	10 days

**Total Cost** - Installation and materials were the key cost difference between pavement types. RCC was the least expensive, though had a cost similar to HMA which utilizes a similar paving method. CC was substantially more costly than RCC and HMA, primarily due to cost of rebar reinforcement and installation.

A standard cost for site preparation and design consultant is shown for each method. Site preparation included labor, earthwork, equipment and materials for the gravel pad. This step was crucial for installing drainage and a strong foundation. Though gravel was used in this project, numerous options exist. The design consultant includes any engineering design, inspection, and consultation costs.

**Installation Time** - Each of these materials require a different installation process. RCC requires the continuous mixing plant located at or near the site. The preparation area at Tiashoke, including material piles and mixing plant required 1.2 acres on site. The mix was transported by loader to the paver during installation. After paving at 10 inches thick, extensive rolling compacted it to eight inches. The project at Tiashoke Farms took 10 days to install, which includes a minor rain delay. Silage was placed on the pad five days after completion, with full strength achieved around 28 days. Variations of this method include purchasing an on-farm central mix plant or utilizing larger twin shaft mixing units. RCC can be bulldozed into place, as is used in some feedlot settings in the southern and western U.S., though pavers can achieve a more uniform and flatter surface.

CC requires additional time for laying rebar. For a project of this scale, the rebar would likely take five days to lay followed by 10 days to pour the concrete, a longer cure time before the pad could be used, and then a similar 29 days to reach maximum strength. HMA is mixed at an off-site plant, and then transported to the paver with dump trucks. With the additional trucking from the off-site plant, this process would have likely required the same time as RCC at 10 days.

**Strength** - The RCC used in this project has a minimum compressive strength of 4,000 psi paved at eight inches thick. General RCC has compressive strengths from 4,000 to 6,000 psi provided by the high density of aggregates in the mix. HMA is paved at six inches with multiple layers (or "lifts") but is not as durable as CC or RCC. For Feed Pads, CC can be poured at six inches with 4,500 psi. However, CC is much more prone to cracking and corrosion by silage leachate.

RCC performs well in harsh weather conditions including freeze-thaw cycles and is resistant to both internal cracking and surface scaling. HMA is resistant to acidic leachate but fails via cracking and rutting, specifically near edges with frequent equipment load. Studies show that RCC has a typical lifespan of over 30 years, CC has an approximate lifespan of 20 to 40 years, and HMA has a lifespan of 15 to 20 years.

### **Benefits of RCC**

- Lower cost than HMA and CC.
- Superior durability.
- Efficient installation.
- Relatively fast cure time. The silage pad was used five days after installation.

### **Considerations**

- Scale of project, cement delivery coordination and paver access.
- Site preparation determines the success of a project.
- Pugmill/mixing plant location impacts installation efficiency.

### **Lessons Learned**

- Coordination in the mix planning, including evaluation of local aggregates, ordering processes, and prescheduling cement delivery is crucial to reduce excess material and enable installation and efficiency.
- Very dry base material may require prewetting to ensure RCC sets appropriately.
- The driveway has held up to heavy use and traffic.

*"Overall, the Tiashoke crew is very pleased with the silage pad. We're uncertain of how this new type of concrete will hold up over the long-term."* - Dayton Maxwell

**Moving forward** - Further research is needed on the long-term durability of the RCC silage pad to determine expected life span and behavior under heavy use.

**Funding** - This material is based upon work that is supported by the New York State Department of Environmental Conservation under the Dairy Advancement Program (DEC component). Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author and do not necessarily reflect the view of the NYS DEC.

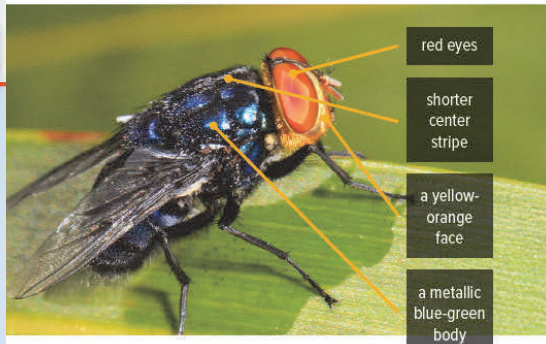
# Identifying New World Screwworm

## BQA/Beef Check Off Fact Sheet

New World Screwworm is a devastating pest that can affect livestock, pets, wildlife, occasionally birds, and in rare cases people. Adult screwworm flies are about the size of a common housefly (or slightly larger). Screwworm larvae (maggots) burrow into a wound, feeding as they go like a screw driving into wood. The maggots cause extensive damage by tearing at the hosts' tissue with sharp mouth hooks. The wound becomes deeper and larger as more maggots hatch and feed on living tissue.

### What to Look For:

- Look for the following signs in livestock or any warm-blooded animals:
  - Irritated behavior
  - Head shaking
  - The smell of decay
  - Presence of maggots in a wound
- Egg masses may be around or in the wound; larvae may be visible by the third day of infestation.
- Because they feed on live flesh, NWS maggots may burrow deeper into wounds or opening, while other species of maggots may appear around the outer surface of the wound.
- Screwworm infestation are very painful. Animals may become depressed, stop eating and separate themselves from other animals or people.



# Dairy Cows in the Classroom: Oneida County *Adopt-a-Calf* Program

Madelyn Engel

How do you help students connect with the origins of the milk they drink in the cafeteria? Adopt a dairy calf, of course! While some enthusiastic students suggested the calves should spend the year at school alongside their therapy dogs, we needed a little help from our local farmers. At the start of the school year, we partnered with four Oneida County dairy farms and asked them to provide calves for classrooms to "Adopt" throughout the year. They delivered in a big way.

More than 60 classrooms across Oneida County signed up to adopt one of eight newborn calves. Once the adoptions were underway, we provided monthly updates, photos, livestock-focused lessons, and hands-on learning activities. Students followed their calves' growth throughout the school year while learning about important milestones like weaning, rumen development, transitioning to TMR, and more.

Of course, the adorable photos were a highlight, but students also gained a deeper understanding of the work and care involved in producing the milk that makes its way from the farm to their lunch trays. In May, we sent out the final updates of the school year and received several heartfelt messages from participating teachers and students. One teacher from Gansevoort Elementary School in Rome shared this message with one of our farmers:

*"Thank you so much for all of the pictures of Penny and the knowledge about cows and farm life. We celebrated every single time we received a new picture of our calf, and the students were so engaged in all the lessons! We hope Penny continues to thrive, and we'd love to hear if she has a calf of her own someday. Thank you again for all that you do!"*

We are excited to continue the Adopt-a-Calf program next year and bring local dairy farming even closer to Oneida County classrooms.



# Erosion Prevention in Crop Fields

Jeff Miller - Oneida County SWCD

## **Diversion Ditches**

Oneida County has many areas with productive farm fields on hillsides. With the increase in the number of intense storms in recent cropping seasons local farmers may be observing more erosion in some of these hillside fields. One method to manage extreme rainfall events and reduce erosion in some of these fields is by constructing diversion ditches (engineered shallow channels across a slope) that intercept the rainwater, redirect and safely convey the water away from vulnerable areas in the field.

Oneida County Soil and Water Conservation District staff have helped local farms identify where diversion ditches can be used to manage water from intense storms, reducing erosion.

## **WASCOB**

A WASCOB is a water and sediment control basin. WASCOBs are more common than diversion ditches. Berms are constructed on the downslope location in a hillside field to form a basin where extreme water can collect. A standpipe is placed in the basin and connected to a tile drain. When water in the basin exceeds the height of the standpipe the overflow is conveyed through the tile to a safe outlet, reducing erosion.

## **Strip Cropping**

A cropping technique where different crops are alternated across the slopes of fields to help prevent erosion. Typically, a strip of a row crop which is prone to erosion is alternated with a strip of hay that intercepts any sediment from the uphill strip and slows water movement down the slope.

Farmers work with SWCD staff sharing field preparation, planting, harvest equipment sizes to combine with information on soil erodibility, slope length and cropping patterns to help calculate the widths of the strips for effective erosion control and practicality in crop production.

# Cover Crop Following Corn Silage Harvest

Jeff Miller - Oneida County SWCD

Do you have armor on your fields helping prevent the loss of your valuable topsoil? If you have harvested your corn silage in mid-September you are leaving your field unprotected for 7 months. Planting earlier and drilling vs. broadcasting the seed save on seed costs.

Date	Drill (lbs/ac)	Broadcast (lbs/ac)
9/15	60	85
9/22	100	140
10/1	140	200
10/15	180	250

Services received from cover cropping:

- Reduction of topsoil loss by erosion: topsoil is rich with nutrients, organic matter, microfauna and flora that enhance crop production
- Research studies at Cornell have shown consistent 40-90% reduction in weed density from cover crops by their blocking sunlight and out competing weeds for nutrients
- Cover crops can sequester nitrogen. Growers who frost seed clover in wheat fields in the spring and harvest wheat in July can have a significant accumulation of nitrogen fixed by clover during the growing season. Some studies showed 40-70 lbs of N/acre. Growers who plant rye grain after corn silage harvest benefit when the rye captures residual N not used by the corn crop and then converts it to soil organic N. There is usually no N credit from a small grain cover crop because the C:N ratio is too high that the N is tied to the carbon and not available for plant uptake.
- Cover crops help to build soil organic matter levels over time. Studies at Cornell showed 0.24 Mg carbon/hectare per year accumulation under cover crops. The organic matter that develops over time has the ability to store water and nutrients for growing crops.
- Actively growing plants exude nutrients that feed soil microbes. This can give your crops a jump start in the spring. Soil microbes have been marinated or increased and are ready to release soil nutrients for crop uptake.

- Some soil fauna that feed on active carbon (mycorrhizal fungi) produce glomalin which is the soil glue that helps create aggregates and ultimately soil structure which is important for drainage and crop production.

Local growers have been very successful at planting wheat, oats, rye grain, and turnips when planted by mid-September. Oats and turnips are terminated by the first killing frost underlining the importance of sowing these cover crops immediately after silage harvest. Turnips can help reduce surface compaction. Oats can provide quick cover without having to terminate them in the spring.

One local grower combines oats and winter rye grain as a cover after wheat harvest with the intent of getting a solid cover that is thinned out by spring (only winter rye). He plants corn into the untreated rye, then terminates the rye with a broadcast application of roundup before the corn germinates. Corn growers could use the same practice if corn is harvested as silage in early September.

# Wheat Harvest and Storage Preparation

Mike Stanyard - NWN Y CCE Ag Team

**Harvest Preparation** - Know your grain moisture and have the combine prepared to go when it is time to pull the trigger. Weather and field conditions do not always cooperate during harvest. Many producers will start harvesting at 20% and dry it down to 13%. Producers who do not have dryers and rely on field drying, run the greater risk of reduced grain quality. The first harvested wheat will have the best quality. If your wheat flowered that first week of June, vomitoxin from FHS could be a concern. Look for pink coloration and shrunken kernels in the heads. If these conditions are present, set the combine fans to high and try to blow these light kernels back onto the field.

**Grain Bin Preparation** - Storage facilities should be inspected thoroughly prior to grain fill. Look for openings, leaky vents, fallen supports, and signs of rodents. Bird nests are always a treat to find in the auger or vents. Stored grain insects survive in old grain so a thorough cleaning is the first line of defense. Clean up all remaining grain on the floor of the bin.

Take a long-handled broom and remove any grain stuck to the walls, around the door, supports, ladder runs and in the fan opening. If there are lots of fines remaining on the floor, clean up with a shop vacuum. It is amazing how many insect eggs and larvae are in a small amount of material.

The same is true for grain handling equipment such as augers and drying bins. After the bin is cleaned out, an insecticide application will help keep the grain mass clean. This can be more helpful the longer you keep the grain in storage. We are very limited when it comes to empty bin insecticide treatments. Tempo® SC Ultra and Storcide™ II (see label for application restrictions) are both labeled. Diatomaceous earth (Dryacide®) is a noninsecticidal silica sand that can be applied as a dust in the bin and below the floor.

Spray the floor and walls inside the bin to the point of runoff. Spray some through the fan under the false floor of drying bins. Spray around the outside base of the bin and eliminate any weeds and old grain debris within 30 feet of the bin. Insects and rodents can survive on weed seeds too.

# Nutrition Affects Milk Components

Deborah Jeanne Sergeant - Country Folks

What you feed the herd affects both herd health and milk composition. Kevin Harvatine, Ph.D., professor of nutritional physiology and chair in Agricultural Sciences at Penn State, presented "Fatty Acids & Milk Components: Optimizing Milkfat Yield" as part of the recent Herd Health & Nutrition Conference hosted by Cornell PRO-DAIRY and Northeast Agribusiness & Feed Alliance.

"As soon as protein is a penny more than fat, no one cares about fat," Harvatine said. "We should care about both for maximum profit on the farm."

Milkfat and protein yield are the drivers of the income part of income-over-feed cost (IOFC). Many factors determine milkfat concentrations and yield: decreased by milk fat depression; increase by additional substrate; and other influences like cow genetics, parity, milk flow and stage of lactation. "Things like the season are really important," Harvatine said. Milkfat concentration has been increasing since 2010, largely from breeding efforts.

"We're gaining genetic potential from that cow," Harvatine said. "Can we breed ourselves out of this? It's going to be hard to increase the protein-to-fat ratio because they are positively correlated. There are no high protein and lower fat cows to select. We're in a little bit of a biological quagmire."

Making the right short and long-term decisions can maximize IOFC today and in the future. Short-term decisions include adapting to market conditions such as real IOFC and analyzing if the farm's management is as good as it can be that day.

Long-term decisions include predicting markets for feed, milk and labor, managing genetics and facilities and improve expertise, consistency and farm management/ "How do we look at things independent of the market?" Harvatine said. "Ask, 'Am I as good as I can be today?' You also need to think where will the market be three or five years from now."

The milk check is among the influences on immediate decisions as cashflow is king, along with the real IOFC. But long-term factors to monitor include the fat and protein yield, along with the cost of energy-corrected milk (ECM) and money-corrected milk (MCM).

Harvatine said a simple approach for long-term goals is to monitor fat and protein yield while beating average percents. "If you are below average percents, you have opportunity to do better," he said. "Do you have some milkfat depression?" He believes that ECM, fat-corrected milk and fat and protein-correct milk are all standardizing on an energy basis.

"They're all the same to standardize milk to energy value, not component yield," Harvatine said. (The standard equation is to correct to 3.5% fat and 3.2% protein.)

He urged farmers to "view variation in standard concentrations - true vs. crude protein and assumptions on energy values. It is not standardizing to equal fat and protein yield." Further, he believes producers overuse ECM. "Unless milk is a biofuel, it does not make sense for farm goals to be based on energy," Harvatine said. "Our goal is to convert feed into money, so we should be benchmarking to what is valued in the market." The five-year average values fat at \$2.80, protein at \$2.36 and other solids at 0.327. "We overvalue fat by 60% compared to protein," Harvatine said.

"The market values lactose at 70% of protein when paid at 14%." Since nutritionists monitor intake and digestive efficiency, Harvatine proposed using nutritional efficiency as part of the equation; however, he said it's not well-linked with income in either the short or long-term.

"The old standard composition of 3.5% fat makes everyone above average and we all look like heroes," Harvatine said. "It's a little bit of fooling ourselves. It is 1.6 times more responsive than the changes in milkfat than protein. We can feed and manage for milkfat." MCM is another approach. It looks at the equivalent yield of 4.3% fat and 3.3% protein milk. Developed by Dr. Greg Bethard, MCM looks at fat and protein levels and a static market value of these components.

But Harvatine said that among this method's challenges are that it's not a standard equation "because he leaves it to you as to what that static value should be," he said. Farmers also have to pick component values and markets differ and change so farmers can't use one long-term equation like ECM.

Harvatine added that there's confusion as to how to use MCM, as it compares constant static value for components over time to monitor the herd and current prices to compare between cows. "You have to use a long-term static value as markets go up and down," Harvatine said. Value-corrected milk (VCM) as a standardization for MCM "will be different for different classes," Harvatine said. "You will need to update prices over time so you can just create your own version." He also emphasized looking at seasonal patterns between winter and summer, as they affect milk composition and thus affect goals.

Farmers need to minimize diet-induced milkfat depression to optimize milkfat. Harvatine listed as risk factors unsaturated FA, rapid rumen availability and acidosis and high diet fermentability. The level and rate of starch digestibility, slug eating and bad silage can all contribute. "The supply of substrate for milkfat synthesis has a smaller but important impact on milkfat yield," Harvatine said. "Cows don't make milkfat from thin air."

Acetate production in the rumen is needed for fat synthesis and forage digestibility, along with rumen function. Feeding supplements such as sodium acetate can help increase milkfat yield; however, "the problem is you can't afford to feed sodium acetate, so you have to manage the rumen to make it," Harvatine said. "It's not just coming from fiber. We need to have a stable rumen. This is the most profitable milkfat you'll have.

Although all farmers want to have total milkfat increase with preformed and *de novo* dairy fat concentration, that's not reality. "What often happens is as we decrease dietary fat, it decreases *de novo* fatty acid," Harvatine said. "We're not getting a direct monetary return - though we may have seen an increase yield and better body fat composition." Once the cow reaches her maximum capacity for *de novo* synthesis, "you will start to lose milkfat yield," Harvatine said. "We have to be careful about where we're starting at."

His recommendation is to think about all the sources of fat in the animals' diet looking at corn silage variation and including oleic acid soybeans. In his research, adding roasted soybeans from 5% to 10% in the higher-producing cows increased milkfat. Increasing roasted high oleic acid soybeans tended to linearly increase milkfat in multiparous cows in their second experiment.

"As we fed more fat, the decrease *de novo*," Harvatine said. "They were doing pretty well. High oleic soybeans can increase milkfat by additional substrate. The diet was too low in fat and the cow was not able to make up for it with *de novo* synthesis. Balancing the diet to minimize milkfat depression while maximizing energy intake makes the most sense. It's about balancing fiber, starch, sugars and more. A balanced diet provides great fiber digestibility and rumen function to maximize acetate supply. It also supplies adequate fat.

Higher milkfat dilutes farmers' fixed cost. Farmers should stop when the energy value falls belows feed costs. Decreasing dietary fat may hurt milk flow, body composition score and reproduction. Getting the fundamentals right includes accurately setting goals across the year; providing great forage and rumen fermentation to get the acetate needed for *de novo* synthesis; minimizing milkfat depression and balancing dietary fatty acids based on goals and return.

**WHITE'S**  
**FARM SUPPLY, INC.**

CANASTOTA 4154 Route 31 (315) 697-2214	WATERVILLE 962 Route 12 (315) 841-4181	LOWVILLE 8207 Route 26 (315) 376-0300
FRANKLIN 387 Center St. (607) 829-2600	SCHAGHTICOKE 1205 NY 40 (518) 753-2237	GOVERNEUR 931 US HWY 11 (315) 535-4054

**WWW.WHITESFARMSUPPLY.COM**



**SAUQUOIT VALLEY**  
**INSURANCE CO.**

**Insuring:**  
**Farms, Homes**  
**Manufactured**  
**Homes,**  
**Livestock,**  
**Equipment &**  
**More!**

P: 315-737-5911 "Insure and Be Sure!"  
[info@sauquoitvalley.com](mailto:info@sauquoitvalley.com)  
[sauquoitvalleyinsurance.com](http://sauquoitvalleyinsurance.com)

**Serving Our Community**  
**Since 1878!**



**Richardson Farms**

**Crop Supplies & Services  
Bulk & Bag Feed/ Minerals  
Hay & Straw**

Vernon Center, NY  
(315) 829-8000



 **PIVOT BIO**



**CNY CROP  
SOLUTIONS**

**315-334-2035**

 **Clinton Tractor  
& Implement Co.**  
The Calidonna Family

31 Meadow Street - PO Box 262  
Clinton, NY 13323

315-853-6151

[www.clintontractor.net](http://www.clintontractor.net)



**GROWMARK**

PO Box 65

Office: 315.841.8886

7610 State Route 20

800.852.5003

Sangerfield, NY 13455 Fax: 315.841.4405

[Sangerfield@growmarkfs.com](mailto:Sangerfield@growmarkfs.com)

Fertilizer, Lime, Seed, Agronomy  
Satisfying Customers, Profitability



**315-732-5759**

**CAROLINA EASTERN-VAIL, INC.**



**CAROVAIL**

Fertilizer - Crop Protection  
Seed - Custom Application

**Tom Hartnett, CCA**

*Certified Crop Advisor*

(315) 841-3201 \* (888) 991-9292

FAX (315) 841-4339

8341 St Rt 20, Oriskany Falls, NY 13425



430 NYS Route 8  
Bridgewater, NY 13313  
Call: 315.793.7169  
Fax: 315.796.7265

Email:

[info@empire-custom.com](mailto:info@empire-custom.com)

Like & Follow Us On



USDA Custom Slaughter, Processing and Retail Sales  
Certified Organic and Grassfed Slaughter  
[www.empirecustomprocessingllc.com](http://www.empirecustomprocessingllc.com)

**Warner Sales & Service, Inc.**

6470 Greenway New London Rd  
Rome, NY 13440  
(315) 336-0311

Email: [sales@warners.com](mailto:sales@warners.com)

**Sales-Service-Rentals**



**Bobcat**



**HUSTLER**  
TURF EQUIPMENT

**Cornell Cooperative Extension** | Oneida County

121 Second St  
Oriskany, NY 13424

Non-Profit  
US Postage Paid  
Oriskany, NY  
13424  
Permit #68

Cornell Cooperative Extension is an employer and educator recognized for providing equal program and employment opportunities in accordance with applicable laws.