Cornell Cooperative Extension
South Central NY Dairy and Field Crops Program
Broome | Cayuga | Chemung | Cortland | Tioga | Tompkins
DAIRY & FIELD CROPS DIGEST
Winter 2022

2023 Winter Crop Meeting

Two Dates / Two Locations

Thurs, January 26
Auburn Holiday Inn
2310 N. Street, Auburn

Or

Fri, January 27
Dryden VFW
2272 Dryden Road (Rte 13)

Time:
9:00 am Registration
Trade Show *in Auburn only*

10:00 am - 3:00pm:
Speakers Program

Cost Including Lunch:
$25—Pre-registration
$30—At door

To Register for Auburn:
https://scnydfc.cce.cornell.edu/event.php?id=2012

To Register for Dryden:
https://scnydfc.cce.cornell.edu/event.php?id=2013

Having trouble registering?
Contact Donette @ (607)391-2662
or dg576@cornell.edu

Questions on WCM?
Contact Janice @ (607) 391-2672
or jgd3@cornell.edu

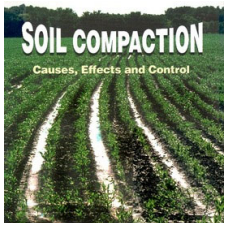
CCA & 1.5 DEC Credits
In Application

Speaker Topics:

Foster Farm—Overview of Their No-Till Cropping System | *Mr. George Foster, Foster Brother's Farm; Middlebury, VT*

George will share their farm's story of what inspired the change to no-till, as well as challenges and success of adopting no-till in 2012 on their heavy clay soils on their 2200 acre dairy farm.

Soil Compaction | *Jodi DeJong-Hughes, Regional Educator in Soils & Water Quality; Professor, University of Minnesota Extension*



Jodi's work addresses field research and presentations in tillage systems, soil compaction, soil quality. She will discuss compaction as the silent thief and strategies for avoidance and remediation.

Impacts of Neonics and Nematodes on Corn Insect Management | *Janice Degni, Area Extension Field Crop Specialist*

Corn rootworm is a major pest of corn that requires management. An increase of resistant insect populations has been demonstrated by major injury to crops from trait protection failures. What's next for management and control?

Corn Diseases– Identification and Options for Management | *Dr. Gary Bergstrom, Plant Pathology, Cornell SIPs*

An overview of major corn diseases including new and expanding diseases, their biology, management options for control and role of crop protectants

Biochar for NYS Agriculture: an introduction and application to soils | *Deborah Aller, Program Coordinator; New York Soil Health, Cornell*

An overview of biochar and its practical applications, role in soil health, and carbon sequestration will be highlighted.

These meetings have been generously co-sponsored and supported by the Tompkins and Cayuga County Soil and Water Conservation Districts

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

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.

Dear Farmers and Producers,

As a new year approaches, we want to thank you for your support and participation in our programs this past year. Our chief objective is to help you make your farms work for you. We do our best to bring relevant topics in ways that are conducive for exchange and learning.

We send our best wishes for an enjoyable Holiday Season!!!

Janice Betsy Mary Kate
Fay and Donette

"I hope that in this year to come, you make mistakes. Because if you are making mistakes, then you are making new things, trying new things, learning, living, pushing yourself, changing yourself, changing your world. You're doing things you've never done before, and more importantly, you're doing something."

Neil Gaiman

Managing your earnings in 2022; Can we impact 2023 and beyond?

By Jason Karszes & Chris Wolf

So far, 2022 is shaping up as a year where cash and profits may rebound within the dairy industry to levels that have not been seen for a few years. While inflation and supply chain issues are driving costs up on dairy farms, milk prices are strong and appear to have generated stronger cash positions through the first third of the year. With the strong cash positions, questions are starting to be asked about potential strategies to maximize the opportunity associated with the stronger positions this year.

What should you do first?

With many different uses of profit, it can be difficult to prioritize. It can be tempting to pay for a capital project with cash, but this might not have the desired impact for improving the ability of the business to manage cash during a down cycle. When focusing on the use of profit within the business, it is important to think about how different investments fit into the business and how they can impact the business. There are two important objectives to keep in mind, the ability to increase the future earning potential of the business and the ability to allow the business to handle the next down cycle more efficiently. Depending on the choices made this year, you may impact one, both, or none of these areas. The following areas can help focus the decision making on where to use profits this year.

Five Uses of Profit/Cash Within the Business

To improve the financial health of the business there are five areas where cash can be invested. These areas are meeting critical needs, improving operations, building reserves, building borrowing capacity, and funding long term investments. Let's consider each use in turn.

1. Meeting Critical Needs

Low dairy farm profitability over the last few years have made it difficult for some farms to meet all their cash commitments. In 2021, some dairies may have delayed investments or postponed expenses, thus hindering the farm's ability to efficiently maintain day to day operations or operate at the lowest possible cost. Catching up on delayed investments and unpaid expenses should be the first use of profit. Paying down an open account with a supplier to qualify for cash discounts is one example. Another example is repairing or replacing essential equipment, such as a skid steer, that is not fully operational. If the business is at the limit of its borrowing capacity, repaying operating credit lines could also be a priority so the business can borrow again when a need arises. This also can lead to lower interest costs, resulting in lower operating costs.

2. Improving Operations

A second area to consider is what could be done to improve the current operations by investing additional capital. Most farms have a long list of ideas for ways to increase milk production, improve labor efficiency and effectiveness, or lower costs. With the higher earnings cycle underway, you must determine investment priorities. From analysis of the current operations, where are the opportunities to improve operations? Improving cow flow leaving the milking parlor, updating ventilation systems, upgrading mixer wagons to improve mixing and reduce time spent feeding, providing additional training to boost employee performance, and implementing lean manufacturing concepts are all examples for improving operations. With so many options, the management challenge is to determine which improvements will have the greatest impact on performance.

3. Building Reserves

If the current operations are running smoothly, or the necessary changes are underway, the next use of profit can be to build reserves within the business. By building reserves, the business has something to draw against when the next low earning cycle comes along. Paying for inputs ahead of time, while also impacting taxes, is a primary way to build inventories which can be drawn down when cash flow becomes restricted. Another source of reserves is building cash balances that may be invested off the farm in accounts, such as money markets, that earn higher interest rates than savings and checking accounts but are available for use by the business when needed. This decision doesn't lead to a tax deduction for the current year, so the tax implications need to be considered when building cash reserves.

4. Building Borrowing Capacity

In conjunction with building reserves, accelerating principal payments to build borrowing capacity within the business is an alternative to consider. Making ongoing debt payments is a normal course of operations, but during high earning cycles, the business can choose to accelerate principal payments, therefore accelerating the reduction of principal and decreasing the amount of outstanding principal that requires interest payments. When the next low milk price cycle arrives, there will be less interest being paid due to lower principal, and there is also increased borrowing capacity that can be tapped into to help cash flow or take advantage of different opportunities. Depending on which loans are paid down, or paid off, the monthly cash commitment required to service principal and interest may also be decreased, which improves the ability of the business to meet cash commitments. It

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To Retrofit Or Not To Retrofit, That Is The Question!

By Timothy X Terry, PRO- Reprinted from prodairy.cals.cornell.edu/environmental-systems/

July 2022—Dairy farming is a constantly changing business. Farming for the long-term will require a facility that can change, as well. Expansion, new technology, and new enterprises may all be in every sustainable farm's future. Planning for a new, or re-modeling and retrofitting an existing facility, is best done carefully and thoughtfully. We have all seen farms laid out in a chaotic array of buildings, and driveways that are inefficient now and make future improvements difficult or even impossible.

Why Retrofit?

Figure 1 - Robotic milking units retrofitted into an existing holding area.

The short answer to this question is often, "Efficiency." For the sake of production efficiency, the farm is trying to incorporate a new technology, for the sake of investment efficiency they are try-ing to do so in an existing structure. Most of the time this a sound business strategy, unfortu-nately, if all aspects are not carefully and dispas-sionately considered, this could lead to a false economy.

Regarding new versus retrofitting an existing facility consider first the condition of the facility. If it is not meeting expected standards in terms of animal comfort and ventilation or lacking in any manner of internal environment then that's a deal breaker. The only job of many of these new technologies (robotic milkers, calf feeders) is to per-form rote tasks and collect data. So, then the question becomes: Do we remodel / renovate or build new?

A helpful guideline is: If the retrofit/remodel is 50% or more of a new facility, go for the new fa-cility. The 50% is not a hard line and there can be a certain amount of discretion included in that, however, there are three reasons that support this:

1. We tend to overestimate the value of the existing structure. There is almost always the sentimental-ity factor, and it can be very hard to walk away from, let alone raze, the building Great Grandpa constructed with his own two hands from the raw materials he found on site. However, we need to see this as sunk capital. Just as if it were sitting on the bottom of the ocean, it is gone, the investment is unrecoverable, and throwing more good money after it is not a wise use of resources.

2. We tend to underestimate the cost of remodeling and/or upgrading the facility to accept the new technology. Quite often we can't appreciate the full scope of the project until we start peeling back the layers and exposing the hidden structure. We may not even be able to install the new system without compromising the structural integrity of the facility. Many may feel they can reduce expenditures by doing it themselves but fail to con-sider the disparity in skill levels between them-selves and the professionals, the amount of tinkering required to retrofit 21st century technology into a 19th century building, the availability of the necessary tools and materials, and lastly, how they're going to fit it in with daily chores, planting, harvesting, etc.

3. We fail to properly value the cost of long-term inefficiencies that remain with the old facility. Even if it takes only five minutes per day that's over a half hour per week and 30 hours per year. However, it's rarely just five minutes or only one person. Add to this the potential reduction in an-imal performance.

Other Considerations

Space – Is there enough available space to install the new technology, allow it to work effectively, and be able to maintain it efficiently? Will there be room for upgrades and/or expansion? It is very short-sighted to shoehorn a system into an old fa-cility with no room for future improvements. Moreover, local codes may specify space require-ments and/or minimum separation distances.

Layout and number of units – Can we install the correct number of units required to service the current number of animals? Will the layout be logical and efficient? Many systems will use a common controller for multiple units, but they must be within a certain distance. For robotic milking systems will the units be in reasonable proximity to the collection point (milkhouse)? Will the units be able to clean and sanitize the system to meet health code regulations?

Ingress and egress – Livestock, especially large livestock, require certain minimum dimensions for passageways, turning radius, and head-to-head intersections. They also don't like apparent dead ends, mazes, dark areas, or shadows on the floor. Travel lanes should never require an animal to step up or down and change direction all in the same movement (i.e. – entering/ existing a foot bath). Whenever possible, entry and exit should be straightforward. It should also allow for them to fully pass

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through a one-way gate before changing direction.

Ventilation – Whether the facility is naturally or mechanically ventilated, you will most likely have to provide some supplemental ventilation in and around the particular units. Circulation fans can boost air flow over a control room in tunnel and cross vented barns. Having a dedicated fan over a milking or feeding stall will keep fresh air moving in the confined space as well as deterring biting flies in the summer.

Ancillary Items

Footbaths – Footbaths should be placed where they are easy to access and easy to exclude. They also need to be narrow (24"-32") and 10' to 12' long. This will keep animals moving while also forcing multiple submersions of all feet. At least one side should be able to open out should an animal go down and not be able to get back on their feet. Emptying, cleaning, and recharging must be easy to complete, or it may not be done in a timely manner. Drain plugs and frostless hydrants need to be included in the design. Some farms elevate a tote of premixed solution over the footbath so that it may be quickly refilled.

Segregation pens – Many may see this as wasted space since it is so infrequently occupied. However, when coupled with a robotic milking system (RMS) it allows for full use of the herdsman abili-ties of the RMS. Any cow requiring special atten-tion can be redirected to this pen following milk-ing. Then the herdsman, vet, breeder, etc. can find the animal without having to search the en-tire group pen. In the meantime, the animal still has access to feed, water, a stall in which to rest, with full access to the robot.

Figure 2 - Elevated totes of premixed footbath solution.

Treatment Stall – Even in the healthiest of herds, at some point all animals will need to be vac-cinated, hoof trimmed, dry treated, etc. These ac-tivities cannot and should not be completed in the milking stall. The treatment stall is usually located in or near the segregation pen for easy access. Gating should be set up such that one person can move an animal quickly, quietly, and safely with little effort. Ideally, there should be a minimum of 6' of open space around the perimeter of the stall. This provides ease of access to the animal as well as an escape zone should an animal become unruly.

("Managing your earnings...", Continued from page 3)

is important to remember that making principal payments is not a tax deduction and accelerating principal payments may impact the farm's future tax liability.

When considering whether to build working capital or build borrowing capacity, talk with your lender and review their policies towards lending additional capital to your farm for operating expenses. If you have a good working relationship with your lender, it may make sense to accelerate principal payments when you have excess cash on hand, and borrow more money in the future, if needed. If there are concerns or high costs associated with future borrowing, then it may make more sense to pay only the scheduled principal payments and put extra profits toward building up working capital reserves.

5. Funding Long Term Investments

The last area profits can be used is for long term business investment. These are investments that are necessary for long-term success and to achieve business and family goals. However, this type of investment may have a slow payback. While they may be good long-term investments, they might also add to the cash commitments of the business. Buying land, building a new barn, adding to feed or manure storage, or building a new milking center are all long-term investments with potential to help farm families progress toward their longer-term goals. It is important to have a business plan when opportunities present themselves, so they can be evaluated in terms of how they support the business mission and progress toward its strategic goals.

Conclusions

By thinking about how profits can be used within the business, focusing on different areas and priorities, the manager can better use the earnings from high cycles to both impact the future success of the business, and impact the ability to navigate the next down cycles. When thinking about all uses of profits within the business, the following question needs to be asked: *"Are you doing this because you can, or because you should?"*

Jason Karszes is a senior extension specialist with PRO-DAIRY within the Department of Animal Science at Cornell University and Dr. Chris Wolf is the E.V. Baker Professor of Agricultural Economics within the Dyson School at Cornell University.

This article is an excerpt from the full text, which is available here: https://ecommons.cornell.edu/bitstream/handle/1813/111354/Managing%20your%20earnings.pdf

Farmers Nationwide Send a Strong Message to EPA on Atrazine

Published on **OCTOBER 18, 2022** at https://www.morningagclips.com/farmers-nationwide-send-a-strong-message-to-epa-on-atrazine/

The Triazine Network is a coalition of state and national ag groups that rely on atrazine and other triazine herbicides to control weeds.

MANHATTAN, Kan. — More than 16,000 farmers and agricultural organizations representing corn, citrus, grain sorghum, sugar cane, and other crops recently united against EPA's proposed revision to its 2020 atrazine registration review decision, submitting comments calling for the agency to base decisions on credible scientific evidence. Efforts to help farmers speak out against the proposal were coordinated by the Triazine Network, a diverse coalition of state and national agricultural groups across the nation that rely on atrazine and other triazine herbicides to control weeds. The atrazine comment period ended October 7.

"EPA's actions have been more like a tennis match than a product registration review," said Greg Krissek, Triazine Network co-chair and Kansas Corn Growers Association CEO. "In its 2020 decision, EPA finalized and published the aquatic level of concern at 15 parts per billion. Then it used an activist court case against its own decision to reconsider the level of concern. In June, EPA announced it wanted to change the level of concern to an ultra-low 3.4 parts per billion. They floated that number in a 2016 risk assessment but never implemented it. They told us this year that 3.4 ppb was always the number, but that was just their staff's wishful thinking until they rolled out this year's proposed revision."

In their comments, growers expressed frustration with the EPA's lack of transparency and its repeated efforts to implement measures that would end effective use of atrazine for weed control. In addition to the ultra-low 3.4 ppb level, EPA doubled and tripled down by creating an over-predictive model that predicted 72 percent of U.S. corn acres would be in violation.

"Instead of relying on real-world water testing, the agency would simply look at a map it made up with a questionable model to decide if a grower would be required to add between one and four mitigation practices from its problematic pick list," said Triazine Network Co-Chair Gary Marshall, who is Missouri Corn Growers Association emeritus executive director. "If EPA would have used just a little bit of common sense, we wouldn't be fighting this fight."

The next step is a Scientific Advisory Panel, which EPA has committed to convening to examine the science behind its proposed 3.4 ppb level of concern.

"Our growers are frustrated with the repeated attacks on atrazine, one of the safest and most studied herbicides in history," Krissek said. "The Triazine Network and others have been fighting this fight for over 25 years. We have science on our side, but EPA continues its attempts to rework the discredited research to reach its own conclusions. We look forward to participating in the upcoming Scientific Advisory Panel."

—National Corn Growers Association

Why is the Census of Agriculture so important to you?

THE CENSUS HAS A POSITIVE IMPACT ON THE FUTURE OF YOUR OPERATION AND YOUR COMMUNITY.

USDA's National Agricultural Statistics Service (NASS) attempts to send a census form to every farmer in the country.

Farmers benefit with new and improved farm programs and services tailored to their region and needs.

We encourage all farmers to fill out the form and return it.

Farmers, businesses, and others use the data to make informed decisions such as where to locate processing or transportation facilities.

As required by Federal law, all responses are completely confidential. NASS safeguards the privacy of all respondents, ensuring that no individual operation or producer can be identified.

NASS publishes aggregated census data for all U.S. states and counties to everyone at the same time, ensuring equal access to data.

NASS compiles and analyzes data about U.S. farming that are only available as part of the census such as demographics, economics and land use.

Data is kept secure and each NASS employee is committed to data security by following mandated procedures to ensure information is not compromised.

Census of Agriculture data works for you by improving decisions about jobs, transportation, production practices, new technologies, marketing opportunities, farm services and programs, and local, state, and federal policy. For these reasons, it is important to respond to NASS surveys.

www.agcensus.usda.gov

United States Department of Agriculture
National Agricultural Statistics Service

USDA

AGRICULTURE COUNTS

CENSUS OF AGRICULTURE

A Vermont Case for Conservation Agriculture: Foster Brothers Farm Inc. | Middlebury, Vermont

By Kirsten Workman, Agonomy Outreach Specialist & Betsy Miller, Farm Management Educator

Part I: INTRODUCTION

George Foster and his son, Jeremy, manage crop production on the Foster family's fifth generation 2,200-acre dairy farm in Addison County, Vermont. On the very heavy clay soil (Vergennes clay) that makes up the predominant soil type on their farm (along with some lighter soil too), they grow 550 acres of corn silage, 300 acres of soybeans, 100 acres of small grains and the balance in grass/legume hay and haylage each year. The family not only sells milk through the Agri-Mark Family Dairy Farms® cooperative where it is made into world famous cheese, but they also operate Vermont Natural Ag Products— home of the Moo™ line of compost and soil amendment products. Today George has become a humble, but impactful leader of a soil health movement in Vermont. While the farm has always had a conservation ethic, George and Jeremy have dramatically changed their cropping systems over the last eight years. After some failed attempts at no-till 20 years ago, George attended the UVM Extension No-Till & Cover Crop Symposium and knew he could make it work on their farm. He had a solid vision, and took a pragmatic approach to putting it to work on the farm.

MAKING THE TRANSITION After acquiring a new no-till corn planter in 2012, the Fosters started their transition to no-till in their corn silage crop, beginning with their lighter soils that were in continuous corn and on their clay fields being rotated to first year corn from sod. They paid careful attention to nitrogen management, splitting sidedress applications and adjusting their starter fertilizer approach. This strategy proved successful, as they did not see the typical yield reductions that no-till can be famous for, In fact, their yields have increased since they made the switch. George attributes a lot of their success to cover cropping, which they started simultaneously. Since that first investment in equipment, they have added a no -till drill, and a roller-crimper to the mix, while also making adjustments to their corn planter. They now no-till plant all their crops (annual and perennial) and cover crop in the corn and soybeans. They also grow their own cover crop seed. This not only saved money on seed costs, but opened a window for August perennial seedings, which has proven successful too— yielding 3 cuts in the first harvest year.

Why cover crops??

When you ask George why he grows cover crops, he'll tell you, "It's what makes no-till work!" He's sure it's the reason no-till didn't work 20 years ago when they first tried it. He explains that the cover crop roots open up the soil while the leaves protect the soil surface. The combination of no-till and cover crops has created a resilient and healthy soil that infiltrates and stores water better, while simultaneously draining better. The result is less drought stress and (clay) fields that can withstand a 2-3 inch rain storm and be ready to plant in a day or two. Other benefits George attributes to his cover cropped, no-till system include: increased soil organic matter, higher earthworm populations, elimination of soil crusting and increased soil structure that results in equipment staying up, reduced compaction that requires far less downforce on the corn planter, and steady and resilient crop yields in both wet and dry years. All of which are hard to quantify in dollars and cents, but George knows he's getting a return on his investment.

Cost of Entry

Cost of entry is a common challenge and concern for producers. New no-till planting and cover crop management equipment can be costly. Many producers space out these investments over time, often as they increase their adoption of these practices. When producers are first starting out, borrowing equipment or hiring custom work is often a desired way to test out which equipment and systems work the best. In many cases, cost share and grant funding can be acquired to defray costs. At Foster Brothers Farm, George and Jeremy did all of the above. Their initial investment in a no-till corn planter, was then increased as they added technology to make the planter better suit their needs. They also took advantage of grant programs. Out of pocket expenses made up roughly 53% of the actual equipment cost. When divided by the savings seen annually just on their 600 corn acres (see next page), this investment was paid for after 5 years. If you add in soybeans and small grains, it only took 3 years to see a return on that investment.

Cost of Entry

New Equipment	Purchase Price	Incentive payment	Out of pocket
3600 Kinze planter	$ 92,000.00	$ 40,000.00	$ 52,000.00
5660 Landoll Drill	$ 95,000.00	$ 80,000.00	$ 15,000.00
30' Roller Crimper	$ 25,000.00		$ 25,000.00
Equipment Modifications	$ 42,300.00		$ 42,300.00
Total	**$ 254,300**	**$ 120,000**	**$ 134,300**

Part 2 will be published in our next issue. For access to full article: https://blog.uvm.edu/cvcrops/files/2020/07/

What's Up with Some of These Poor-Quality Soybeans? *By Mike Stanyard, Extension Field Crop Specialist, NWNY*

It has been a roller coaster for field crops in 2022. Dry conditions worried many of us during the growing season this summer. Let's talk soybeans. The Northeastern Regional Field Office of the National Ag Statistics Service (NASS) has predicted soybean yields at 50 bushels/ acre in their October 1 estimate. They are also estimating the NY soybean crop as 16% Poor, 22% Fair, 32% Good and 30% Excellent as of October 3. So, you can see that there are plenty of Good to Excellent beans out there. However, I am receiving pictures of harvested soybeans that fall into the Poor to Fair range that are ugly. Why are some fields so bad and what caused it? A lot of this starts with the drought stress this summer followed by a warm and wet September. I'm seeing more of this injury on the lighter soils that were hurt the most by the lack of rainfall. When we finally did get rain into September, the conditions (warm and wet) were perfect for a couple of late-season diseases to take hold. Severe yield reductions have been observed in infected fields this year. Cercospora Leaf Blight (CLB) and Purple Seed Stain can be seen at low levels most years in NY. Cercospora infection causes upper leaves to turn a dark purple with a leathery appearance. I commonly see it late in the season (late August) and predominately on the outside edge of rows that get more sunlight and low wetter areas. Rain with high humidity and long dew periods favor this fungus. The fungus itself is not usually an economic factor and it is not recommended to spray for it in NY. However, the disease will infect and stain the seeds with mottled purple blotches. This does not affect the nutritional quality of the seeds, but the purple color will be undesirable for buyers who manufacture food products. If the percentage of purple seed is high enough, it may cause loads to be rejected or highly discounted.

Stem and Pod Blight and Phomopsis Seed Decay can usually be found at low levels in NY soybean fields particularly in wet low-lying areas. Like CLB, it is favored by warm wet conditions during the reproductive stages. Signs of infection appear as rows of small black dots on the stem and pods as the plant nears maturity. Severe infection can result in premature plant death. Seeds infected with Phomopsis seed decay become shrunken, moldy and turn white. Disease severity usually becomes worse as harvest is delayed. Infection reduces seed quality, but no toxins are produced. To read more about these diseases visit the Crop Protection Network resource, https://crop-protection-network.s3.amazonaws.com/ publications/cpn-1007-pod-and-stem-blight-andphomopsis-seed-decay.pdf Both Cercospora leaf blight and stem and pod blight overwinter in infected soybean residue and seeds. When conditions are favorable, they will grow from the residue and form spores that will spread throughout the canopy. Fungicides are usually not recommended for management, but cultural practices such as crop rotation (not planting continuous soybeans) and burying crop residue are helpful. Phomopsis seed decay and purple seed stain in soybeans

Checklist for Fall Heating System Maintenance and Safety in Farm-Provided Employee Housing

The heating system in farm-provided employee housing is critical to keep a farm business's most important resource safe, comfortable, and productive. As harvest season approaches its downhill slide, so will the fall temperatures. Now is the time for annual maintenance and repair on the heating systems in farmworker housing. Not only does the heating system control temperature, but it is also responsible for overall indoor air quality.

Here is a pre-heating season checklist to keep farm-provided housing comfortable and to avoid costly inefficiencies:

- Replace the filters, even if they look clean.
- Check that there is a clear air space of six feet around the furnace.
- Inspect registers and returns in each room and ensure they are clean and free of blockages.
- Inspect exhaust vents on the interior and exterior of the building to ensure they are clean and free of blockages.
- Test thermostats for function and accuracy.
- Train occupants on proper use of the thermostat. Instruct them to adjust the thermostat if it gets too hot, and not to open windows or doors.
- Contact a professional for repairs that require more than routine maintenance. Burner, blower, and control repairs should be performed by a trained technician.
- Document all maintenance and repair and keep your receipts.

This is also time to check all smoke-detection devices, carbon-monoxide sensors, and fire extinguishers.

- Replace batteries in smoke-detectors and carbon monoxide-sensors. Do a system test, preferably with a resident present so they are prepared if the system is activated.
- Make sure fire extinguishers:

  Are in their designated places, visible, and appropriate signage indicating their location.

  Can be easily accessed, and the pressure gauge is in the operable range or position.

  Are full by lifting it or weighing it. Check the service date on tag.
- Refer to the State Uniform Fire Prevention and Building Code for requirements on the types and locations of fire-detection and suppression equipment specific to the housing classification.

This is a great opportunity to demonstrate to workers that their safety and comfort is of great importance. If you have any questions or need additional resources, reach out to the team at agworkforce.cals.cornell.edu.

By Jay Canzonier, Cornell Agricultural Workforce Development. Permission granted to repost, quote, and reprint with author attribution. The post Checklist for fall heating system maintenance and safety in farm-provided employee housing appeared first on Cornell Agricultural Workforce Development.

New York's Organic Dairy Industry Under Pressure: New York's "Organic Dairy Task Force" Responds *by Fay Benson – CCE Cortland County*

The organic dairy market began in the mid 1990's as a result of consumer's dissatisfaction with the introduction of the growth hormone for cows. In the beginning it was a rapidly increasing market that benefitted small and mid-sized dairies in the Greatlakes and Northeast due to their ability to graze their dairy animals. Organic processors paid well with increases in pay price each year because of the increase in demand each year. New York benefitted from the growing market, in 2018, eight hundred of the roughly four thousand dairies in New York converted to organic production. More than any other state in the country. Times began to change when six dairies in Texas were certified using a loophole in the organic standards. These dairies produced nearly as much as all of the organic dairies in New York. The oversupply of milk caused prices to drop and quotas to be implemented. This pressure was compounded recently when Horizon Organic decided to not renew the contracts for ninety New York and New England organic dairies, and further compounded by the recent rapid rise in all production costs due to inflation. Conventional dairies have seen a 30% rise in their pay price but organic dairies received a fraction, if any, of a pay increase.

New York Organic Dairy Task Force was started in 2006 as part of my work at Cornell to support the market. It has met every year and sometimes twice in a year for sixteen years. It is a semi closed group of all the links of the organic dairy value chain in the state including: Dairy farmers, organic grain farmers and mills, organic dairy processors, certifiers, state regulators and extension educators. The years of growth of the market were much more fun than the recent years of compression of the market. At last year's Task Force meeting we invited groups and individuals from other states to discuss the market loss caused by Horizon. As a result of that meeting numerous groups formed to address that issue as well as the current shrinking of margins caused by inflation. The Task Force meeting on October 11th had three reports form those groups and a review of the emerging market for organic beef. Below are descriptions and links to those efforts to help the organic dairy market in New York and New England:

- Ed Maltby is the Executive Director for the NE Organic Dairy Producer Alliance (NODPA) (member of the NY Organic Dairy Task Force). He shares some of the pain that farmers are experiencing and how NODPA was part of the efforts of the New England Organic Dairy Task Force. A review of organic pay/retail prices as well as organic feed prices can be seen here: https://cornell.box.com/s/ofkcvewhzyv5v8383smpglli9in7crdw https://cornell.box.com/s/8qef0b2uk7ivnrm1nke6h0cx8k0hyvyr
- NOFA- NY reported on their collaboration with NY Farm Viability (Both members of the Task Force). Their goal was to identify and help organic dairy farmers who lost their market due to the exodus of Horizon from the area. At this link farmers can access a grant that provides $5,000 to help find a new market or transition to another enterprise: https://nofany.org/resources/dairy-resources/
- Britt Lundgren with Stoneyfield Yogurt (member of the NY Organic Dairy Task Force), co-chaired the New England regional task force. She reported on their recommendations to strengthen the organic dairy market. The link below is the summary that work. Their task force has disbanded having finished their objective.https://agriculture.vermont.gov/administration/danonehorizon-task-force
- Marc Broccoli CEO for "Open Range Beef" Updated the Task force on their recent purchase of the Gold Medal Packing Plant in Rome NY. Currently upgrading facilities to be certified organic. Will handle apx. 50 cows a day when complete. They've been reaching out to organic dairy farms across the NE to describe the need for their organic cull cows. For more information go to: https://cornell.box.com/s/0j5q6ylj0jlvf4lucepr82cfsejju7vk

2022 Projects: Value of Manure

Reprinted from Cornell University Nutrient Management Spear Program

http://nmsp.cals.cornell.edu/NYOnFarmResearchPartnership/Value_of_Manure.html

What are the Nitrogen Value and Yield Benefits of Manure?

Manure is a tremendous valuable nutrient source that can help build soil organic matter, enhance nutrient cycling, and in general improve soil health and climate resilience (improved yield stability, i.e. reduced year to year yield variability) despite weather extremes. Manure use can offset the need for synthetic fertilizer, ensuring a reduced environmental footprint for crop production, benefiting farm economics, agronomic production, and contributing to climate change mitigation. However, very few studies have quantified the benefits of manure in terms of nitrogen fertilizer replacement and yield and forage quality benefits and crop production economics. Quantification of nitrogen credits and yield benefits is needed to advance manure management in future years.

In 2022, we initiated a 3-year study based on two questions: (1) how much nitrogen can be credited to various manure sources; and (2) what are the corn grain and silage yield benefits of fall or spring applied manure?

If you are interested in participating, contact Quirine Ketterings (qmk2@cornell.edu or 607-255-3061). You can also write to: Quirine Ketterings, Nutrient Management Spear Program, Department of Animal Science, Cornell University, 323 Morrison Hall, Ithaca NY 14853.

Goals

Our goals are to evaluate the value of various manure sources, applied in the fall or in the spring, with or without incorporation or injection, for corn silage and/or grain.

Funding Sources

This project has been sponsored by grants from the Northern New York Agricultural Development Program (NNYADP), New York Farm Viability Institute, and federal formula funds.

Additional Resources

Invitation to Participate (PNG October 9, 2022)

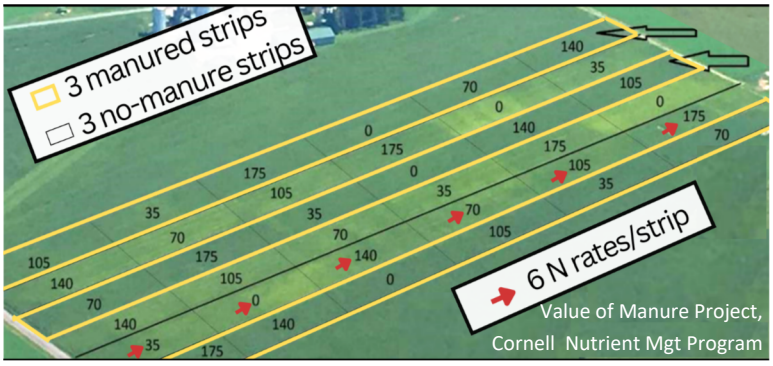
Protocol (PDF; October 9, 2022)

Farm identity is kept confidential.

Cornell confidentiality statement.

Processing/Cleaning Corn Silage and Grain Yield Monitor Data for Standardized Yield Maps across Farms, Fields, and Years.

Instructions for CSNT Sampling (NMSP).



Farmer Impact Stories Fact Sheets

Agronomy Factsheet #31: Corn Stalk Nitrate Test (CSNT).

Agronomy Factsheet #63: Fine-Tuning Nitrogen Management for Corn.

Agronomy Factsheet #72: Taking Corn Stalk Nitrate Test Sample after Corn Silage Harvest.

Agronomy Factsheet #77: Nitrogen for Corn; Management Options.

Agronomy Factsheet #78: Adaptive Management of Nitrogen for Corn.

Agronomy Factsheet #98: Nitrogen Uptake of Corn.

Agronomy Factsheet #99: Nitrogen Rate Trials in Corn.

Agronomy Factsheet #104: Grain Yield Monitor Calibration.

Agronomy Factsheet #105: Increase Yield Monitor Data Accuracy and Reduce Time Involved in Data Cleaning.

Extension Articles

Godwin, Q.M. Ketterings, K.J. Czymmek, T. Dumond, and D. Young (2018). Nutrient Boom Allows for Mid-Season Manure Application in Corn. What's Cropping Up? 228(3): 52-53.

Sadeghpour, A., K.J. Czymmek, Q.M. Ketterings (2016). Value of manure lingers long after application. Eastern DairyBusiness. The Manager. 8(2): 37-38.

Journal Articles

Ketterings, Q.M., G. Godwin, P. Barney, J.R. Lawrence, B. Aldrich, T. Kilcer, K.J. Czymmek, and B. Gloy (2013a). Shallow mixing of surface soil and liquid dairy manure conserves nitrogen while retaining surface residue. Agronomy for Sustainable Development 33: 507-517.

Ketterings, Q.M, G.S. Godwin, S.N. Swink, and K.J. Czymmek (2013b). Can manure replace the need for starter nitrogen fertilizer? Agronomy Journal 105: 1597-1605.

Sadeghpour, A., Q.M. Ketterings, G. Godwin, and K.J. Czymmek (2017). Shifting from N-based to P-based manure management maintains soil test phosphorus dynamics in a long-term corn and alfalfa rotation. Agronomy for Sustainable Development. doi: 10.1007/s13593-017-0416-z.

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Upcoming Events Calendar

Every Tuesday, January 10 - February 21,	Technology Tuesdays ; CCE Regional Teams and Pro-Dairy will host a series of webinars relating to technology adoption and utilization in the dairy industry.
January 11, 18, 25 Feb 1, 8	Farm Accounting with QuickBooks Online 12—1:30 Zoom course FMI: https://scnydfc.cce.cornell.edu/event.php?id=2014
January 11 - March 21	Getting the Most of of Your Pastures Multi-County Series FMI: https://reg.cce.cornell.edu/Winter-Pastures_211
January 26 & 27	Winter Crop Meeting In-Person Auburn | 26 Dryden | | 27 FMI: https://scnydfc.cce.cornell.edu/events.php
January 31—February 1	Operations Manager Conference FMI: cals.cornell.edu/pro-dairy/events-programs/conferences-seminars/operations-managers-conference
February 14 & March 14	NYCO In-Person Meetings, Geneva 9am—1pm FMI: Email bryan.brown@cornell.edu

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