

Cornell Cooperative Extension Cornell Vegetable Program



Q1 2024

Quarterly Highlights

The Cornell Vegetable Program (CVP) is a Cornell Cooperative Extension partnership between Cornell University and CCE Associations in 14 counties: Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Monroe, Niagara, Ontario, Orleans, Oswego, Seneca, Steuben, Wayne and Yates.

The team of Vegetable Specialists provides educational programs and information to growers, processors and agri-business professionals, arming them with the knowledge to profitably produce and market safe and healthful vegetable crops.



Cornell Vegetable Program Specialist Judson Reid speaks to a large crowd at the Finger Lakes Produce Auction meeting in early January. See page 2 for details.

1,323
farm visits and
direct contacts

63
events &
presentations
featuring CVP
Specialists

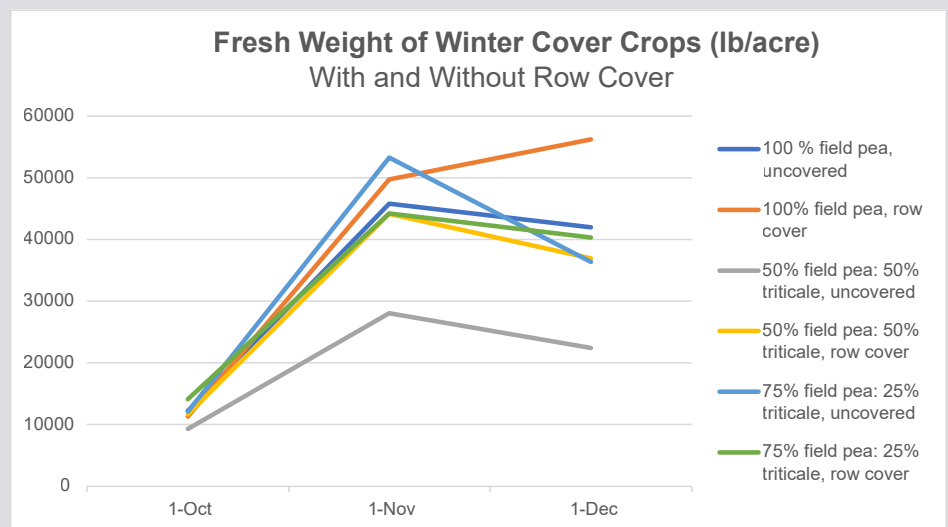
2,609
people
attended CVP
presentations

Record Breaking Numbers for Meetings and Attendees

Cornell Vegetable Program Specialist Judson Reid reports an intense first quarter of the 2024 calendar year. In collective memory, the number of presentations exceeds here-to-fore occurrences with crowds at standing room capacity. In these three months over a dozen presentations were made at 7 produce auction meetings, the Empire State Producers Expo, and a statewide gathering of Soil and Water Conservation and USDA service providers. Attendance exceeded 500! Topics included cover cropping in high tunnels, pest management and crop nutrition. Traditionally 'meeting season' was restricted to January and February, but with the continued growth of produce auctions across New York State, we find ourselves supporting economic development with educational events from November through March!

An important aspect of these meetings is peer-to-peer learning. We were able to leverage our relationships with farmers to include peer education at the majority of these events. We are particularly grateful to the New York Vegetable Growers Association for including us in the January Producers Expo.

These meetings represent one of the primary outreach mechanisms for sharing our research data. In particular, our cover cropping research, supported by an NRCS Conservation Innovation Grant, has demonstrated the potential for farmers to realize fresh weights of winter cover crops in excess of 50,000 lbs per acre. This could represent over 300 lbs of nitrogen per acre—a huge cost savings for farmers by reducing the need for imported nitrogen!



Potato School Returns to New York State

In February, potato growers came back together for the 2024 NY Potato School organized by the Empire State Potato Growers with assistance from the Cornell Vegetable Program. This was the third NY Potato School, and the first time holding one since 2019.

Attendees met for the 2-day conference in Waterloo, NY to hear from speakers that travelled in from across the country to speak on a variety of potato-related topics. Representatives from Potatoes USA and the National Potato Council shared national updates, and John Mesko from the Potato Sustainability Alliance presented on farmers telling their sustainability stories. Paul Bethke with the USDA provided presentations on successful potato harvest and storage and on potato seed physiology and management. Louise-Marie Dandurand from University of Idaho gave a presentation on potato nematodes, and Julie Pasche from North Dakota State presented on black dot's impact and management. Potato growers also heard updates on the national potato trials from Chris Long out of Michigan State, and on employee retention from Richard Stup from Cornell. Attendees also had the opportunity to mingle with each other and processors at the Potato Grower-Processor Dinner on the first night of the conference.

Around 120 people attended this year's Potato School, and the feedback was very positive. Both growers and processors were excited to be back together, and farmers went home with new information they plan to implement on their farms. The NY Potato School will be returning in 2025.

Processing Vegetable Industry Convened at March Meeting

Fifty-three members of the processing vegetable industry who grow, manage, or support crop production for Nortera Foods (formerly Bonduelle North America), Seneca Foods and/or Love Beets USA participated in the NYS Processing Vegetable Industry Roundtable Meeting on March 18, 2024, in Batavia. The meeting was organized by CCE Cornell Vegetable Program Processing Vegetable Crops Specialist, Julie Kikkert.

Michael Gardinier, VP of Operations for Farm Fresh First and Chair of the NYS Vegetable Research Association & Council reported that five research projects were funded by the Association in 2023 for a total of \$156,793. The research funding comes from grower contracts and is matched by Nortera Foods and Seneca Foods. Commodity managers for green peas, snap beans, sweet corn, beets, and carrots provided an update on the 2023 growing season and any issues that were encountered. Research presentations followed and included insect management in sweet corn and snap beans, disease management in carrots, detection and management of tar spot in sweet corn, and weed management with herbicides or new methods such as electrical weeding, laser weeders, and robotic weeders. Researchers also updated the group on how the NYS Birds and Bees Act, and the Federal Endangered Species Act may affect vegetable growers. A wrap-up session provided industry members an opportunity to voice their concerns and priorities for research. The mid-day lunch break provided plenty of networking opportunity.



A variety of robotic weeders that were discussed at the Processing Vegetable Meeting. Photos: Lynn Sosnoskie, Cornell

Farming Requires Deeper Dive Into Business and Marketing

Financial management is moving to the forefront for many farms—figuring out the cost of production for their farming operation in order to make vital financial decisions to keep their farms profitable and ensure their longterm viability. In response, the Cornell Vegetable Program (CVP) participated in two winter meetings that focused on financial management.

Finger Lakes Farm Fresh Membership Meeting

The first was a CVP presentation at the [Finger Lakes Farm Fresh](#) organic cooperative winter membership meeting. The group (around 40 growers) meets to chart out what the membership and the cooperative marketing management need to do to enhance the coop's current operation and also to attract new buyers. The CVP created crop budget sheets to figure out their production and marketing costs to aid in financial planning. The CVP will provide assistance to the growers throughout the season, helping them use the budget sheets to determine how to proceed during the year and what prices they can afford to take for their produce.

Collaborative & Alternative Marketing for Farmers – Learning from Those Who Are Doing It

Sometimes, the marketplace changes and growers are faced with the gloomy prospect that they are losing some of the market share and profits where they once did pretty well. New ideas and thinking out-of-the-box may be required to face these new business financial challenges. The second business program held this winter was created by Robert Hadad of the Cornell Vegetable Program, with assistance from Elizabeth Henderson of NOFA-NY. The virtual event featured a panel discussion made up of two farm produce marketing entities of different scales:

Full Plate Collective – Ithaca, NY

Owned by [Stick and Stone Farm](#) and [Remembrance Farm](#), two of the Ithaca area's largest organic farms. Each farm maintains their own independent business, wholesale, unique specialty crops and more, coming together to create shares and community as the Full Plate Farm Collective! Each farm contributes about half of the weekly CSA shares; together they produce about 90% of the food for the CSA. They don't do it alone! It is Community Supported Agriculture, after all: "The collective model allows us to work with and support many more great fellow-producers in the Ithaca area! We commit to buying crops early in the year, much like our members do for us. Their contributions enrich share variety and support crop security, backing each other up when yields are down."

Deep Root Organic Cooperative – Johnson, VT

Founded in 1985 in northern Vermont, [Deep Root Organic Cooperative](#) is one of the oldest co-ops of organic vegetable growers in the United States: "The co-op exists to promote local, sustainable, and organic agriculture through its small, family-owned farms. Due to our size and the variety of our member farms, we offer a wide range of products available throughout the year. We connect the farmer and the customer, delivering the best local organic produce and value-added products to retail establishments, co-ops, restaurants, and institutions."

The Cornell Vegetable Program advertised the virtual meeting and farmers from across (mainly) WNY and elsewhere in the state comprised the audience of 30. A lively 2-hour discussion was had with the audience really wanting to learn more about how to start and run alternative marketing enterprises to augment what they are already doing. Several growers from our region have asked us for more information and assistance in the coming year in exploring how to move forward.

Stop the Rot Finale: Moving the Needle Towards Fewer Losses from Bacterial Diseases of Onion

Bacterial bulb rot is the arch-nemesis of onion production. Cornell Vegetable Program Onion Specialist, Christy Hoepting had the privilege of being a co-PI and the Extension lead for a national \$8 million dollar, 4-year (2020-23) USDA-funded grant, affectionately known as the “Stop the Rot” project. According to a survey conducted in the first year of the project, New York muck onion growers averaged 15% losses from bacterial bulb rots with 13% experiencing catastrophic crop losses of more than 50% in the past 5 years. The goal of the project was to move the needle towards fewer losses.

Output from the Stop the Rot project was massive and Hoepting spent the winter communicating progress towards managing this complicated disease. She gave 4 presentations which reached most of the muck onion growers in New York and a total of 111 growers and allied industry representatives.

If weather conditions are favorable for bacterial disease during the most vulnerable stage of the crop, there is not much that can be done to prevent or fix the rot problem. But, the Stop the Rot project did identify management strategies for onion bacterial diseases that are not effective that growers no longer need to waste their money on, including:

- Spraying bactericides during the growing season and applying sanitizers to onions in storage.
- Furthermore, it was discovered that a high proportion of the strains of bacteria that cause onion bulb rot carry genes that make them resistant to copper, which explains why copper bactericides do not work.

The Stop the Rot project identified best management practices to avoid a rot problem and how to prevent making an existing rot problem worse:

- In dry seasons that require onions to be irrigated, overhead irrigation should be stopped at 50% tops down, because studies showed that bulb rot continued to increase every week that onions were irrigated beyond this crop stage.
- Growers should be mindful to not top and harvest onions when the neck tissue is green, as this practice can result in unnecessary new bacterial infections.
- To hasten the dry down of neck tissue, onions should be undercut or pulled in a timely manner.
- When onion foliage is ravaged from disease and/or onion thrips and does not have enough weight to lodge properly, gently rolling these fields shields the leaf axils from new bacterial infections lessening bulb rot.
- If onion plants must be harvested when the neck tissue is still green, leaving a minimum neck length of 2-3 inches is critical.
- Furthermore, artificially fast-curing onions indoors with heated forced air can drastically reduce the amount of bacterial disease that enters into the bulb by decreasing the neck drying time from 14 days to 3-4 days.
- Alternatively, if bacterial disease occurs at high rates in the foliage at harvest, but has not yet entered into the bulb, fast artificial curing is not recommended, because it will increase bulb rot.

==> Watch our new Stop the Rot video, “[How to Identify Foliar Symptoms of Bacterial Disease in Onion](#)” on our YouTube channel.



Newly Funded Grants & Projects

Your Trusted Source for Research-Based Knowledge

Towards a Durable Management Strategy for Foliar Diseases of Processing Carrots in NY: Phase 2

New York Vegetable Research Association, 4/1/2024 – 3/31/2025, \$13,759 (Pethybridge, Kikkert).

Development of a Preparedness Strategy for Tar Spot of Processing Sweet Corn in NY (Phase 2).

New York Vegetable Research Association, 4/1/2024 – 3/31/2025, \$13,942 (Pethybridge, Kikkert).

Optimizing Herbicide Weed Control and Crop Safety in Transplanted Cabbage

New York Cabbage and Research Development Program (NY CRDP), 4/1/2024 – 3/31/2025, \$11,660 (Hoepting).

Developing New Insecticide Programs to Advance Cabbage Insect Pest Management

New York Cabbage and Research Development Program (NY CRDP), 4/1/2024 – 3/31/2025, \$8,245 total (Nault, Hoepting – \$4,124).

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