QUARTERLY HIGHLIGHTS Q3 2021

The Cornell Vegetable Program 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 in 2021.

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.

1,464 farm visits and events & people direct contacts presentations attended CVP featuring CVP presentations **Specialists**

Making Food Safety Education More Inclusive

Food safety is an important topic that all produce growers need to be familiar with and actively think about in their daily operations. Food safety is also a complex topic in part because it is built upon risk reduction principles. While this approach provides flexibility and allows a myriad of solutions and good practices to be adopted, that same flexibility can cause confusion for individual farmers as they seek to implement strong on-farm policies and practices. Navigating these complexities can be especially challenging for certain subsets of growers, like those who have had a less formalized education, speak English as an additional language, farm using heritage practices, and those who are uncomfortable interpreting regulations.

CCE Cornell Vegetable Program staff recognized that there was a need for better educational tools that would help growers:

- understand how practices relate to underlying food safety principles
- identify which practices would mitigate specific sources of food safety risk
- decide which practices were a good fit for their farm
- develop clear, easily understood policy and procedure documents for their farms

To address this need, Robert Hadad, Caitlin Tucker, and Elizabeth Buck have collectively created several new teaching resources and tools designed to simplify food safety and help growers confidently draft food safety plans for their farms.

An example of these new resources is a simplified template for handling, storing, and sanitizing harvesting containers that was developed for use by plain community growers. The template uniquely considers and explains risks associated with diversified livestock-produce operations and presents solutions that are compatible with cultural norms. The resource uses vernacular English, wide spacing, and a mix of check boxes for selecting good practice choices and areas for self-described solutions.

Grower feedback was positive and indicated that the new tool helped the producers craft effective and realistic food safety policies without having to worry about writing out long, complicated documents in English. As a result of removing these barriers to adoption, about two dozen growers now have elevated one or more elements of their food safety plan from unwritten, common sense practice implementation, to having and following written policies based on best management practices.











Fungicide Resistance Threatens Onion Growers Ability to Manage Stemphylium Leaf Blight

Cornell Vegetable Program Trials Indicate Disease Control Will be Easier in 2022

Managing Stemphylium leaf blight (SLB) of onion in New York, at the rate at which it is developing resistance to fungicides, is like white water rafting with most of the rafters being thrown out of the boat. SLB is a leaf disease of onion that can cause excessive leaf dieback with consequent reductions in bulb size and quality, and yield. Since 2015, Cornell University has discovered that SLB has developed resistance to fungicides belonging to five classes including Fungicide Resistance Action Committee (FRAC) groups 2, 3, 7, 9 and 11. Fungicide resistance varies among FRAC groups and active ingredients and their ability to control SLB ranges from none to mediocre. With these challenges, muck onion growers tended to lean on the better-performing FRAC 3s in 2021, although at the risk of further fungicide resistance.

To find sustainable management solutions for SLB, Vegetable Specialist Christy Hoepting, with the assistance of Emma van der Heide and Sarah Caldwell, conducted three on-farm small-plot fungicide trials in Elba and Oswego muck lands in 2021. Fortunately, effective fungicides in two novel resistance classes and other synergistic fungicide combinations were identified that will make managing SLB easier next year.

In late August, Hoepting guided tours of her SLB fungicide trials in Elba and Oswego to 18 muck onion growers, crop consultants and private industry representatives from Syngenta, Bayer and Certis. In Elba, preliminary results prompted two growers to treat a total of 300 acres with fungicides from the novel resistance groups, which ensured healthy onion foliage to allow for proper lodging, while relieving pressure on FRAC 3 fungicides. Hoepting is looking forward to further analyzing the trial results and making new onion fungicide recommendations for 2022.



CVP Onion Specialist, Christy Hoepting (second from the left) gives Oswego onion growers a tour of the onion fungicide trial. The onions in the front plots (in front of the group) have healthy foliage compared to those where the growers are standing that suffered from excessive leaf dieback caused by Stemphylium leaf blight. The treatments that resulted in healthy plants will be used in fungicide recommendations next year. Photo: E. van der Heide, Cornell Vegetable Program



Western NY Dry Bean Community Comes Back Together for an In-Person Twilight Meeting

After meeting virtually this winter for the annual NYS Dry Bean Meeting, dry bean growers in western New York were excited to come together for an inperson twilight meeting this September in Genesee County at Duyssen Farms. Nice weather allowed for presentations both indoors and out, providing growers with different forms of hands-on education and topics covered by Cornell and CCE faculty and staff.

Cornell Vegetable Program Specialist Margie Lund started the meeting with a presentation on Western bean cutworm, passing around insects to help with identification and sharing about this year's pest pressure in the region. Cornell Plant Pathologist Sarah Pethybridge shared about white mold management for dry beans and passed around disease samples at different stages of growth for attendees to observe. NYS IPM educator Marion Zuefle showed growers how to check dry bean roots for soybean cyst nematode and presented on this pest's impacts on dry bean production in New York. Lastly, Cornell Weed Scientist Lynn Sosnoskie presented on pigweed identification and management for dry beans and showed growers some examples of weeds in the field, pointing out different identification characteristics. Growers and industry members stayed after the meeting to enjoy dinner together and network.

Twenty-four dry bean growers and industry members from numerous counties were able to attend, and feedback on the meeting was overwhelmingly positive.



Lynn Sosnoskie presents on weed management in dry beans. Photo by M. Lund, Cornell Vegetable Program



Sarah Pethybridge presents on white mold management in dry beans. Photo by M. Lund, Cornell Vegetable Program

Summer Meeting Season a Success in the Finger Lakes

In the eastern portion of the Cornell Vegetable Program's territory,

there are three wholesale produce auctions that aggregate flowers, fruits and vegetables for hundreds of farmers and buyers. These auctions—located in Ontario, Yates and Seneca countiesmarket multi-millions of dollars of healthy, local produce to the surrounding region. The Cornell Vegetable Program works with the educational committee of each auction to develop events to Chautauqua Produce Auction further grower's knowledge Clymer, NY and skills on topics such as fertility, pest management, and



food safety. The most important aspect of

these peer learning events is the cooperating farms that host the meetings. The shared space gives us the

opportunity to see and touch plants, pests, diseases, weeds and soil.

This contribution from the family farms is invaluable and a demonstration of the partnership and commitment of the industry to the Cornell Vegetable Program mission.

What did *we* learn at these events? At the Seneca County farm weed and pest management demonstration, discussion took place between farmers from four different counties. In Yates, the farmer shared an innovative double cropping strategy to save money and labor in transitioning between spring crops and strawberries. The Ontario Produce Auction event included high tunnel tomatoes with sequential plantings, spider mite management, and cover cropping indoors and out.

We thank the Nolt, Martin and Swarey families for their generosity in creating hundreds of learning hours for us.





Improved Foliar Disease Management in Table Beets

The CCE Cornell Vegetable Program table beet specialist, Julie Kikkert, continued field research and education during the third guarter of 2021 to help growers ward off devastating foliar diseases. Collaborating with the laboratory of Dr. Sarah Pethybridge at Cornell AgriTech in Geneva, we evaluated the utility of a weather forecasting system to predict the risk of Cercospora leaf spot (CLS) in table beets on western NY farms for a second year. Two Genesee County and one Yates County farm participated in the study in both years. This year, a total of 9 fields were scouted weekly. The farms were advised on the incidence of CLS in the fields along with the forecasted risk for CLS infection. A fungicide application was recommended once the action threshold had been reached if the weather forecast also indicated moderate or high risk of infection. Four of the fields did not require fungicide applications, saving thousands of dollars in application costs. All interested table beet growers and crop scouts received bi-weekly emails with the CLS forecast and commentary, thus extending the reach of our work.

Other efforts focused on proper disease identification. One grower was planning to apply a fungicide to his fields, but we identified bacterial leaf spot as the disease rather than CLS and advised that a fungicide was not needed. To further assist growers and crop consultants, two timely articles were published along with weekly commentary in the VegEdge newsletter. Fact sheets were also developed for the common foliar diseases Cercospora, Phoma, Alternaria, and Bacterial leaf spot. A video on beet crop scouting is under development.

SCRUB: Sanitizing & Cleaning Resources for Your Business

Virtual Workshop Series Provides Wash/Pack Food Safety Trainings

The Cornell Vegetable Program, a collaborator on a multistate grant with University of Vermont, Michigan State University, and the National Farmers Union – Georgia branch, participated in a <u>series of twilight virtual workshops</u> held over the last 6 weeks of the quarter. The three-year grant project, SCRUB (Sanitizing & Cleaning Resources for yoUr Business) is using one-on-one and small group interactions with growers to develop new long-term, interactive wash/pack food safety trainings and educational resources.

The SCRUB virtual trainings were recorded and made available to a wider audience. To date, over 300 views have been tallied. The evaluation of the project is almost immediate as farmers report back the changes, upgrades, and integration of equipment and practices for washing produce hygienically, as well doing a better job of cleaning/sanitizing facilities and equipment.

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