



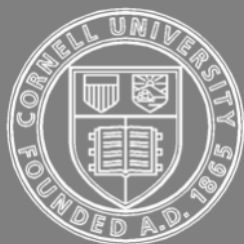
# CORNELL VEGETABLE PROGRAM TRUSTED SOURCE FOR RESEARCH-BASED KNOWLEDGE

QUARTERLY HIGHLIGHTS JANUARY - MARCH 2017

## CORNELL VEGETABLE PROGRAM

A premier regional agricultural Cornell Cooperative Extension team that provides educational programs and information to growers, processors and agribusiness professionals, arming them with the knowledge to profitably produce and market safe and healthful vegetable crops.

- Together, the Cornell Vegetable Program made more than 150 farm visits and phone/email consultations
- 20 educational events were organized by the Cornell Vegetable Program this quarter
- Cornell Vegetable Program Specialists gave presentations at 17 events hosted by Cornell Cooperative Extension Associations and other collaborative organizations
- 1,735 people attended meetings where presentations were made by Cornell Vegetable Program Specialists



## ASSESSING BARRIERS TO WHOLESALE MARKETING FOR SMALL-SCALE VEGETABLE GROWERS

In the fall of 2016, a new CVP project began through a USDA Agriculture Marketing Service grant awarded to Robert Hadad and Crystal Stewart: a feasibility study to identify the barriers small fresh market produce growers face when trying to enter the wholesale market place. The goal of the study is to quantify the hurdles, assess the impacts to growers trying to enter wholesaling, and assess what educational programs can be created by the CVP to solve these problems.

An online survey was developed and advertised to vegetable farmers across the state. Nearly 200 responses were returned with a great deal of information. These responses are still being analyzed but some of the initial findings are quite interesting.

- Farmers who are currently wholesaling want to sell more but want to be sharper on their cost of production.
- Of the farmers who had tried wholesaling then quit, more than half want to try wholesaling again.

The majority of these producers want training to overcome the obstacles they ran into before. The top three challenges were not receiving the price they thought they needed to get, not meeting the quality standards of the buyer, and not understanding the standards and/or packing requirements of the buyers.

Nearly half of the farmers surveyed started out selling wholesale because they had excess crop they couldn't move at the retail level. About 40% of these growers quit selling wholesale. The majority of growers who continued to sell wholesale grew crops and quantities specifically to sell wholesale. This seems to be a very important point. Understanding the dynamics of wholesale as a place to move large quantities of quality crops rather than a place to dump excess has its own mindset.

The next phase of the study will focus on discussions with individual and small groups of growers. There needs to be more in depth investigation of their attitudes and further needs. The farmers will be divided by the categories of "currently wholesaling", "once wholesaled but stopped", and "never wholesaled but might". The idea is to tease out more details and stories of attempts, failures, successes, and fears. The end result is to build from this information to create specific trainings for farmers to become more successful with wholesaling or have the right tools in front of them to make an informed decision before jumping into this new marketing venue.

The project will be completed this fall with an article to be written and submitted to the Journal of Extension.

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## REGIONAL ONION SCHOOLS: A POPULAR ALTERNATIVE APPROACH TO DELIVERING PROGRAMMING

New York State accounts for 97% of onion production in the northeastern United States, where the majority of 8,000 acres are grown on muck soils – a unique and intense production system. Each year, Cornell University and Cornell Vegetable Program (CVP) conduct dozens of research trials to address production issues in muck-grown onions. One means of delivering research-generated information to onion growers is through the Onion Session at the Empire Expo. Unfortunately, onion grower attendance has steadily slipped in recent years. In another effort to bring the information to the growers, in 2017, CVP Onion Specialist, Christy Hoepting, tried regional Onion Schools instead. In March, CVP offered a full-day of educational programs featuring 2016 Cornell research results in both the Elba and Oswego regions. In total, 34 muck onion growers attended the Schools, representing over 90% of the muck onion acreage in the CVP region. Industry support came in full force with an outstanding 22 company sponsors and 24 individual allied industry representatives participating in the Onion Schools, representing pesticide, seed, fertilizer and refrigeration businesses. Participants left the Schools amazed at the quantity and quality of onion research conducted in NYS, filled with new information and strategies to improve onion pest management, and excited about new programs under development, especially in weed management. According to veteran Oswego onion crop consultant, Dale Young, “It has been a long time since I have seen so many growers and industry rep people at a Vona's meeting. That says a lot for your program. Good job.”

At the Elba Onion School, Hoepting was presented with the 2016 NYS IPM Award for Excellence in onion IPM.

At the Oswego Onion School, Executive Director of CCE Oswego, Paul Forestiere and CVP team leader Julie Kikkert welcomed CCE Oswego and Oswego vegetable growers to the CVP, a celebration of a long awaited initiative.



Onion Specialist Christy Hoepting teaching attendees of the Oswego County Onion School.  
Photo: Julie Kikkert, CCE Cornell Vegetable Program

## CVP COORDINATES PRODUCE AUCTION ANNUAL WINTER GROWER MEETINGS THROUGHOUT THE REGION

The Cornell Vegetable Program is honored to work closely with 6 produce auctions spread throughout the region each winter to update growers on Best Management Practices related to nutrient and pest management, marketing and food safety. Meetings were held in Allegany, Chautauqua, Ontario, Seneca and Yates counties this winter with over 300 farmers participating.

Produce auctions are aggregation points that allow local farmers to sell their produce in wholesale lots to buyers from across the region. The Cornell Vegetable Program has supported the development and growth of these auctions and acts as the educational lead for the majority of the NYS produce auctions.

A [video](#), made by the Cornell Vegetable Program in 2015, shares general information about produce auctions, how buyers and sellers use the auctions to expand their businesses, and how local communities benefit from them.



High tunnel tomato grower showing the benefits of Best Management Practices adoption.  
Photo: Judson Reid, CCE Cornell Vegetable Program



## GROWERS LEARN INTEGRATED WEED MANAGEMENT TOOLS FOR THEIR FARM

The Cornell Vegetable Program and the Lake Ontario Fruit Program teamed up in late March to host an In-depth Workshop on Management of Weeds in Tree Fruit, Berries and Vegetables. CCE Specialists Deborah Breth, Christy Hoepting and Darcy Telenko led this exciting program with over 40 growers in attendance, earning growers 6.25 DEC credits as they learned about integrated weed management strategies.

The program kicked off with Telenko discussing the importance of weed biology and understanding where weeds come from. Then the growers were asked to take a pre-test in identifying 10 unknown weeds. Following the pre-test, Breth described many useful resources available for identifying weeds including the book offered for purchase at the workshop, Weeds of the Northeast by Richard H. Uva. The CCE Specialists got down into weeds and identified specific management strategies for individual weeds – perennial broadleaves, grasses and sedges, and annual broadleaf weeds. Hoepting presented an Introduction to Herbicides and Herbicide Labels, followed by a conversation by Telenko on the Effective Use of Herbicides.

Guest speaker Andrew Landers from NYS Agricultural Experiment Station spoke about Sprayer Technology and Many Ways to Hit the Target, discussing the importance of droplet size and proper nozzle selection. Breth reviewed safety requirements for application of herbicides. The program concluded with growers hitting up the team with farm specific weed issues in a roundtable discussion titled, "Can we solve your weed problem?"

Participants were given a weed ID post-quiz; many did a better job in identifying the weeds than in their pre-test. Many growers thanked the team for putting on such a great meeting. One of the grower attendees stated, "It was the best Extension meeting I ever attended! We learned a lot!" This workshop demonstrated effective cross commodity collaboration in delivering excellent Extension programming to our region.



Cornell Vegetable Program Specialist Darcy Telenko provides growers with details about the biology of weeds and identifies specific management strategies for each weed.

Photo: Amy Celentano, CCE Cornell Vegetable Program

## DRY BEAN GROWERS AND PROCESSORS ENGAGE IN RESEARCH AND PRODUCT EVALUATION

Local dry bean growers and processors had two opportunities to engage in research and product evaluation this quarter. On February 28 at the New York State Agricultural Experiment Station, beans from variety trials conducted last year in Geneva and subsequently canned by Furmano Foods, PA were opened and evaluated for appearance, texture and taste. Attendees were treated to a unique educational experience where retiring industry leaders passed the torch to those taking the reins. CVP's Julie Kikkert took on programming responsibility for dry beans in our region this year. In addition to participating in the dry bean variety evaluation in Geneva, she organized the 2017 Dry Bean Meeting held March 6 in Batavia, NY. The 35 attendees overwhelmingly ranked the seven presentations as excellent (73%) or good (21%). Topics of high interest to the industry included development and testing of new varieties, as well as management of white mold disease, western bean cutworm insects and weeds. Attendees learned about efforts to bring healthy bean dishes into New York Schools, through the Cool School Food Program [www.healthyschoolfood.org](http://www.healthyschoolfood.org), and were treated to tasty dry bean dishes. After trying the black bean brownies, one attendee remarked, "These are the best brownies I have ever tasted!" The remainder of the meeting was spent prioritizing research projects. The dry bean endowment at Cornell allocated funds to 5 research projects for 2017, totaling \$32,000.

Dry beans are packed full of health benefits, being high in protein, fiber, iron and other nutrients. According to the latest Census of Agriculture, 71 western NY farms produce about 9,000 acres of dry beans, valued ~\$7 million. Black beans and red kidney beans are the types that produce well in our soils and climate. After local beans are harvested, they are sent to one of several factories in NY or PA for cleaning and processing into canned product or packaged for the dry pack market. Product is sold to local, regional, export and organic markets.



Industry members evaluate dry bean varieties after canning.

Photo: Julie Kikkert, CCE Cornell Vegetable Program

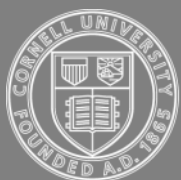
## HIGHLY RATED CABBAGE SESSION AT EMPIRE EXPO FEATURED CVP RESEARCH

Eighty-four percent (66% response rate) of the 53 participants rated the Cabbage Session at the Empire Expo as excellent, the highest rating received in the last 12 years. The program featured an executive summary of a 3-year project of Christy Hoepting's research on understanding nitrogen dynamics in cabbage. The second part of the session featured an in-depth look at managing diamondback moth (DBM) in the face of insecticide resistance. Particularly compelling were Hoepting's 2016 research results, which indicated that an uncontrollable DBM population in the CVP region was resistant to three different chemical classes of insecticides. Cornell Vegetable Entomologist, Dr. Brian Nault, reviewed life cycle and history of DBM and Hoepting concluded by rolling out recommendations for DBM resistance management. Evaluation comments included, "really practical info that growers can actually use" and "probably best session I've attended at Expo!"

## NEWLY FUNDED GRANTS

Each year, the Cornell Vegetable Program is tasked with generating a certain percentage of our operating funds (Program Grants and Funds (PGF)), through research grants, sponsorships, and meeting registration revenue. We are pleased to announce that this quarter roughly \$250,000 of grant funded projects were awarded in which our Specialists are the Principal Investigators (PIs) or co-PIs.

- **Developing BMPs on Cleaning Produce Wash Equipment and Delivering Training to Growers**, Northeast Center for Advancement of Food Safety, 3/1/17 - 2/28/18, \$15,000 (Hadad)
- **Organic Management of Cercospora Leaf Spot in Table Beets**, Cornell Towards Sustainability Foundation, 2/1/17 - 12/31/17, \$10,000 (Kikkert, Pethybridge)
- **Towards a Durable Management Strategy for White Mold in Dry Beans in New York**, NY Dry Bean Endowment, 4/1/17 - 3/31/18, \$9,000 (Pethybridge, Kikkert)
- **Optimizing the Fungicide-Based Management of White Mold in Two Varieties of Snap Bean**, NY Veg Research Association (Processing), 4/1/17 - 3/31/18, \$20,857 (Pethybridge, Kikkert)
- **Know Your Enemy! Identification of Plant-pathogenic Fungi Associated with Root Decay on Table Beet**, NY Veg Research Association (Processing), 4/1/17 - 3/31/18, \$17,418 (Pethybridge, Kikkert)
- **Optimizing the Use of Aprovia Top for Management of Cercospora Leaf Spot in Table Beet**, NY Veg Research Association (Processing), 4/1/17 - 3/31/18, \$13,143 (Pethybridge, Kikkert)
- **Climate Smart Farming Extension Team**, Smith Lever, 1/1/17 - 12/31/17, \$6,000 (Telenko)
- **Evaluation and Demonstration of Integrated Disease and Weed Management Options for Organic Vegetable Production: Year Two**, Cornell Towards Sustainability Foundation, 3/1/17 - 2/28/18, \$10,000 (Telenko, Reid, Hadad)
- **Evaluating New Herbicides for Potential Registration in Transplanted Cabbage**, NY Cabbage Research and Development Program (CRDP), 4/1/17 - 3/31/18, \$8,909 (Telenko, Hoepting)
- **Application of Electromagnetic Conductivity Measurements for Precision Agriculture for NYS Vegetable Growers**, New York Farm Viability Institute (NYFVI), 4/1/17 - 3/31/19, \$84,840 (Oware - Univ. Buffalo, Telenko)
- **Prevention of Brassica Crop Losses from New Invasive Species, Swede Midge on At-Risk Small-Scale Organic Farms: Part III**, Cornell Towards Sustainability Foundation, 1/1/17 - 12/31/17, \$10,000 (Hoepting)
- **Use of Nitrogen Dynamics in Cabbage (Part IV): Use of Nitrogen Stabilizers, Continued**, CRDP, 4/1/17 - 3/31/18, \$6,000 (Hoepting)
- **Weed Management in Muck-Grown Onions**, NY Onion Research and Development Program (ORDP), 4/1/17 - 3/31/18, \$10,000 (Hoepting)
- **Evaluation of Fungicides for Soilborne Diseases in Muck-Grown Direct Seeded Onions**, ORDP, 4/1/17 - 3/31/18, \$8,000 (Hoepting)
- **Continuing Best Management Practices for Long Term High Tunnel Soil Sustainability**, Cornell Towards Sustainability Foundation, 4/1/17 - 3/31/18, \$10,000 (Reid)
- **Advancing Veg Production in NNY 2017**, NNY Agricultural Development Program (NNYADP), 1/1/17 - 12/31/17, \$5,016 (Ivy, Reid)
- **Nitrogen Dynamics and Yield Response to Minimal Supplemental Heating in High Tunnel Winter Production**, Northeast Sustainable Agriculture Research and Education (NESARE), 2/1/17 - 12/31/18, \$5,500 (Grundberg, Reid)



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