We can rely on the Cornell Vegetable Program to provide timely answers to our questions so we can implement proper pest management tools. This allows us to produce high quality vegetables while being environmentally sound.”

— Mark Zittel, Amos Zittel & Sons, Inc, Eden, NY

“I’m really glad I took the time to attend [the Fresh Market Field Days]. The content and conversations stimulated new ideas and helped me to let go of some things I am doing...I’m coming away with more focus on what I want to accomplish and how to get there.”

— Attendee at the 2015 Fresh Market Weed Management Field Days
There is a new generation of beet consumers. While traditional sliced and whole beets in cans or jars remain a steady commodity in NY, locally grown beets and beet products are on the rise. Beets have become popular in farmers markets, where varieties of different shapes, colors and flavors are popular, along with their greens. Processors like Seneca Foods are offering snack cups of diced pickled beets that are shelf stable. Love Beets USA products of marinated baby beets, vacuum-packed cooked beets and beet juices have become popular on the East Coast and a new facility is soon to open in Rochester, NY. Cornell Vegetable Program Specialists are an integral part of Cornell’s table beet research team, aimed at helping local growers meet the demand of traditional and emerging markets. Research trials were conducted in 2015 to address the two most pressing issues: weed and disease management. A newly funded Specialty Crops Block grant will help ensure that NY growers have the best management tools available.

**Bird Repellent Tools Researched in Sweet Corn**

Bird damage is a persistent problem for vegetable producers, particularly in fresh market sweet corn. Wildlife damage not only leads to rapid yield loss but the possibility of microbial contamination poses a huge food safety issue. In an attempt to help mitigate this pest, the Cornell Vegetable Program evaluated bird repellents on four farms. Avian Control, a chemical deterrent, and an “air-dancer” successfully dissuaded birds at all farms, increasing yield 1 to 19% ($22-$418/A) over untreated plots with bird damage ranging 2 to 30%. Average harvestable ears increased 4.2% with two applications of Avian Control and 9% with the “air-dancer” when compared to untreated areas in the same field. Success was highly dependent on application timing, placement, and crop maturity. The Cornell Vegetable Program will expand our research to further develop Best Management Practices for these repellency tactics in vegetables to diminish loss, increase profitability for our producers, and explore their use on other crops and wildlife.

**Developing and Expanding Farm Food Safety Trainings**

The Cornell Vegetable Program continues to be a leader in NYS for its work on food safety for vegetable farmers. In 2015, Vegetable Specialist Robert Hadad joined the Northeast Regional Post-Harvest and Extension Working Group, a group of Extension and research specialists that pools resources, shares and compares information, and collaborates on research to further develop farm food safety training in the region. Hadad acquired a $36,000 training grant and led 9 food safety post-harvest handling trainings in New York and 3 other states for over 280 farmers and food hub employees. Additionally, in anticipation of the new FDA food safety rules being implemented in the fall 2015, Hadad became a certified trainer in the new educational training curriculum created by the Produce Safety Alliance.

“We participated in the [managing swede midge in organic systems] project in 2015... It has been helpful and educational, both the data sharing and also [Cornell Vegetable Program] on-farm discussions of the project and findings and thinking about potential management practices that could be implemented.”

— Lou Johns, Blue Heron Farms, Lodi, NY

**Supporting Growth of the New York Table Beet Industry**

There is a new generation of beet consumers. While traditional sliced and whole beets in cans or jars remain a steady commodity in NY, locally grown beets and beet products are on the rise. Beets have become popular in farmers markets, where varieties of different shapes, colors and flavors are popular, along with their greens. Processors like Seneca Foods are offering snack cups of diced pickled beets that are shelf stable. Love Beets USA products of marinated baby beets, vacuum-packed cooked beets and beet juices have become popular on the East Coast and a new facility is soon to open in Rochester, NY. Cornell Vegetable Program Specialists are an integral part of Cornell’s table beet research team, aimed at helping local growers meet the demand of traditional and emerging markets. Research trials were conducted in 2015 to address the two most pressing issues: weed and disease management. A newly funded Specialty Crops Block grant will help ensure that NY growers have the best management tools available.
Over the past 5 years or so, large-scale muck onion growers have been seeing an aggressive disease blight the leaves causing excessive leaf dieback so that the plants die prematurely. In essence, the onions are “dying standing up” instead of maturing and falling over. Immature mortality results in reduced storability and bulb quality. In 2015, Cornell Vegetable Program Onion Specialist, Christy Hoepting teamed up with Cornell vegetable Plant Pathologist, Sarah Pethybridge, to ascertain the cause of this new affliction of onion. First, statewide survey results indicated that the disease Stemphylium leaf blight (SLB) was a major pathogen associated with excessive leaf dieback of onion. Several on-farm small-plot fungicides trials conducted by Hoepting identified that certain fungicides were much more effective at controlling SLB than others and that SLB appears to be the major plant destructor when it is associated with downy mildew. Next, Pethybridge will screen the SLB isolates collected from the 2015 survey for resistance to fungicides and Hoepting and Pethybridge will develop an effective fungicide program that will preserve the longevity of useful products.

Unravelling New Puzzling Leaf Disease of Onions

Over the past 5 years or so, large-scale muck onion growers have been seeing an aggressive disease blight the leaves causing excessive leaf dieback so that the plants die prematurely. In essence, the onions are “dying standing up” instead of maturing and falling over. Immature mortality results in reduced storability and bulb quality. In 2015, Cornell Vegetable Program Onion Specialist, Christy Hoepting teamed up with Cornell vegetable Plant Pathologist, Sarah Pethybridge, to ascertain the cause of this new affliction of onion. First, statewide survey results indicated that the disease Stemphylium leaf blight (SLB) was a major pathogen associated with excessive leaf dieback of onion. Several on-farm small-plot fungicides trials conducted by Hoepting identified that certain fungicides were much more effective at controlling SLB than others and that SLB appears to be the major plant destructor when it is associated with downy mildew. Next, Pethybridge will screen the SLB isolates collected from the 2015 survey for resistance to fungicides and Hoepting and Pethybridge will develop an effective fungicide program that will preserve the longevity of useful products.

Alerted Dry Bean Growers to Invasive Pest Threat

The Cornell Vegetable Program has been organizing a Western bean cutworm (WBC) moth trap network across six dry bean production counties since the pest first appeared in 2011. WBC moth traps allow us to monitor moth populations, anticipate threats, and alert growers to spray insecticides when scouting thresholds are met. In 2015, seven out of ten fields surveyed reached the scouting threshold (100/trap), with one trap catching over 500 moths, triggering an alert for the first time in NYS. Intensive scouting for Western bean cutworm pod damage began. Pod damage is caused when the WBC larvae invade the pods to eat the beans within, making the beans unmarketable. Damage was only found in one late dry bean field and several growers may have been spared damage by spraying insecticide based on our timely alert. Funded by a NYS Dry Bean Industry Committee grant.

“Participating in the [winter high tunnel pest management] project has made me take my blinders off. Slowing down enough to emphasize pest management and reprioritizing tasks to get management things done in a timely fashion, helped lead to work environment improvements on my farm...There is an increased quantity of high quality produce.” — Cattaraugus County grower
The Cornell Vegetable Program is one of the premier regional agricultural Cornell Cooperative Extension programs in New York, serving a large multi-county region in the western part of the state. The team’s Vegetable Specialists work together with Cornell faculty and extension educators statewide to address the issues that impact the industry. The Cornell Vegetable Program 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, contributing to the viability of farms and the economic wellbeing of New York State. Specifically, our program focuses on food safety, variety evaluation, market development, pest management, and cultural practices.

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