

# VEGETABLE Team



**Judson Reid**  
*Vegetable Specialist*

Greenhouse production,  
small farming operations and  
fresh market vegetables



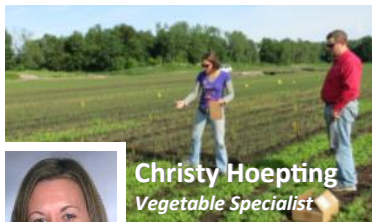
**Carol MacNeil**  
*Vegetable Specialist*

Potatoes, dry beans, and soil  
health



**Julie Kikkert**  
*Vegetable Specialist*

Processing crops (sweet corn,  
snap beans, lima beans, peas,  
beets & carrots)



**Christy Hoepting**  
*Vegetable Specialist*

Onions, cabbage, and  
pesticide management



**Robert Hadad**  
*Vegetable Specialist*

Food safety & quality, organic,  
business & marketing, and  
fresh market vegetables

#### Program Assistants

- Elizabeth Buck
- John Gibbons
- Courtney Hill
- Nelson Hoover

#### Administrative & Communications Lead

- Angela Parr

#### Management Team

- Mark Giles, Cornell Administration
- Steve Reiners, Cornell Faculty
- Julie Kikkert, Vegetable Specialist

*“Field meetings and farm visits help a lot of growers. The Cornell Vegetable Program has played a big part in getting our auction to where it is today; a thriving and growing enterprise with millions of dollars in revenue.”*

— Finger Lakes Produce Auction grower, Yates County

*“I’m amazed at how a world-renowned institution like Cornell University Cooperative Extension has made such an effort to collaborate, research, and advise those of us who operate small, diverse and organic farms.”*

— Dan Kent, Kent Family Growers

*The Vegetable Program at Cornell is a vital part of New York’s survival in the vegetable business. We, as growers, feel they are one of the very few really working on the unique issues that affect New York, specifically. They are also leaders in solving problems that affect the industry as a whole.”*

— Larry Christensen, L. Art Christensen Farms

*“Among the things for which I am most thankful are the Vegetable Team and indeed all the wonderful folks at Cornell to whom I may contact!”*

— Fred Forsburg, Honeyhill Farm

*“The [soilborne pathogen] workshop was informative and worthwhile. I’ll work at implementing many of the strategies discussed. It’ll change how I do things.”*

— Denny Reynolds, Quest Farm Produce

*“As a new vegetable grower it is important to me to market a quality product that not only looks and tastes good but is safe for my customer. The Cornell Cooperative Extension GAPs training helped me to assess my risks, improve farming practices, write a workable food safety plan and gain confidence as a grower. The support of the Cornell team has continued well past the formal training as new questions and challenges have come up for me related to food safety.”*

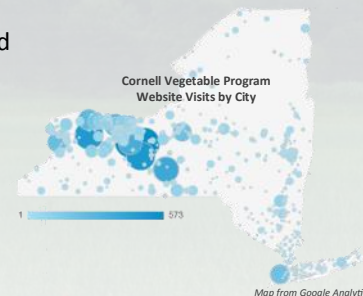
— Keturah Gilbert, Livingston County

## CORNELL VEGETABLE PROGRAM Impacts in New York



In 2013, the Cornell Vegetable Program, a Cornell Cooperative Extension regional agriculture team, served the vegetable, greenhouse, potato and dry bean industries in a 11-county region of Western New York.

- The Cornell Vegetable Program serves 11 counties with 1,017 vegetable farms on 90,662 acres, with an estimated farm gate value of more than \$250 million.
- Our region accounts for more than half the acres of the entire New York vegetable industry.
- Our team made more than 2,900 farm visits and crop consultations.
- Our specialists organized and participated in over 75 educational meetings with more than 3,200 attendees.
- Cornell Vegetable Program-hosted field days and educational meetings accounted for over 40 DEC pesticide recertification credits.
- Our team managed 45 grant and industry funded projects with awards totaling nearly \$800,000.
- The Cornell Vegetable Program website has been visited by 9,705 NYS residents from 441 New York cities.
- Twenty-eight issues of the award-winning newsletter, *Veg Edge*, were produced by our team, a timely and trusted resource for making pest management and production decisions for growers in Western New York.



For more information about our program,  
email [cce-cvp@cornell.edu](mailto:cce-cvp@cornell.edu) or visit us at  
**CVP.CCE.CORNELL.EDU**



Cornell Cooperative Extension is an equal opportunity, affirmative action educator and employer.

## Year in Review

2013

### CORNELL VEGETABLE PROGRAM Program Areas

#### Pest Management

*including effective pest control strategies, Integrated Pest Management (IPM), pest activity reports, addressing new pest problems, education, and problem solving*

#### Food Safety

*including farm food safety/Good Agricultural Practices (GAPs), GAPs Quality Assurance and Food Safety Program Certification*

#### Soil Health

*including cover crops, reduced tillage, decreased compaction, increased organic matter, and grower education*

#### Variety Evaluation

*in local, on-farm trials*

#### Market Development

*support for creation of new farmers markets and produce auctions, promoting established markets and season extension research*

#### Cultural Practices

*including fertility, nutrient management and yield enhancement*



Your  
**TRUSTED SOURCE** for **Research-Based  
VEGETABLE KNOWLEDGE**



Cornell University  
Cooperative Extension  
Cornell Vegetable Program



# Highlights

## Promoting Soil and Water Management

Excess rain in May and June delayed planting on most farms in the Cornell Vegetable Program region resulting in some crop loss and late replanting. Farms that had previously adopted reduced tillage, cover crops, and field ditching/drainage, based on Cornell Vegetable Program recommendations, fared better than farms that had not taken steps to improve their soil and water management. To continue our effort to promote the benefits of soil and water management, six on-farm meetings/tours were organized across our region this summer covering soil health, reduced tillage, cover crops, and improvements in muckland water management. The CCE NWNV Dairy, Livestock & Field Crops Team, Wayne SWCD, and NRCS, collaborated on some events. Almost 100 growers played an active role in the programs, describing their practices, showing their equipment and fields, and explaining what they would change in the future. Reduced till equipment, weed management, cover crops, and muckland perimeter ditching and outlet clearing, were of particular interest among the growers attending the meetings.



## Providing Onion Growers with Hope in the Management of Perennial Sowthistle

Onions are big business in New York with roughly 10,000 acres planted each year and a value of \$46 million. Perennial sowthistle is a weed that spreads prolifically and can quickly seize an entire field by choking out the onions and interfering with harvest. Furthermore, some growers have spent hundreds of dollars per acre hand-weeding, only to have an even worse problem because the plant's underground stems, called rhizomes, are stimulated to send up more shoots. What is a grower to do to manage this pest? In 2013, the Cornell Vegetable Program demonstrated that the key to success is to plan for early harvest in problem fields, allow regrowth of the sowthistle and follow with an effective fall herbicide to kill the rhizomes. By continuing to study this weed and herbicide options – most susceptible stage of the weed, best rate and time to apply herbicide, and most effective use of multiple applications – our team is leading the way in finding a solution to this perennial weed problem.



## Late Blight Forecasting Tool Protects 4,000 Acres of Potatoes and Tomatoes in Western New York

Total loss can be experienced within two weeks of exposure to *Phytophthora infestans*, or late blight, in unprotected potato and tomato crops. Late blight is a serious concern of NYS farmers as it has caused \$ millions in crop loss in NYS in recent years. The Cornell Vegetable Program leads the way statewide with late blight education and diagnostic assistance. With the help of Cornell and IPM staff, the Cornell Vegetable Program has promoted and educated growers about the benefits of using an advanced forecasting tool, the Late Blight Decision Support System, to help them more effectively and efficiently time fungicide sprays. Through email/text alerts, WNY growers that adopted the Decision Support System were able to combat late blight during the wet 2013 season with tight and timely spray schedules, protecting over 4,000 acres of tomatoes and potatoes.



## Reducing Losses from Weeds in Carrot Fields

There are roughly 3,000 acres of processing carrots grown each year in WNY, with a value of nearly \$9 million, but the crop is threatened by weed escapes that cause improper root formation, reduced yields and harvest interference. As soon as the fragile carrot seedlings emerge, right alongside erupt the vigorous pigweed and ragweed seedlings that have laid dormant in the soil for as many as 50 years. It used to be that sprays of the herbicide linuron would knock out the weeds, while leaving the carrots unharmed. Not so anymore as researchers from the Cornell Vegetable Program and Cornell University have demonstrated that some of those weeds are now resistant to the herbicide applications. To find alternate products that can be used in carrots, thirteen different herbicide treatments were tested in a commercial carrot field on muck soils and at the Cornell Research Farm on mineral soils. Data from the trial will be used to obtain new product registrations for use on carrots in New York.



## Monthly In-Field Discussion Groups Prove Valuable to New Farmers

New farmers often feel isolated and uncertain about their choices in production practices, pest management, and marketing. To encourage group learning and sharing in a hands-on setting, the Cornell Vegetable Program organized and led two discussion groups that each met monthly at a participant's farm after hours. Our staff often started the meetings with a crop walk to point out various things going on in the field, providing observations, production tips and pest management strategies. Growers then had the opportunity to learn from each other by sharing their experiences. Participants left feeling more educated about effective practices and confident in their farming decisions.



## Supporting Growth of Produce Auctions in New York State

Wholesale produce auctions account for \$5 million in sales of fresh fruits and vegetables in NYS each year. According to a research study of auction practices conducted in 2012, growers with higher numbers of season extension structures experienced greater growth, and those with certified pesticide applicator licenses experienced higher farm profitability. The study also noted that there is a statistical correlation between increased sales and educational opportunities provided by the Cornell Vegetable Program. To continue our support and promote further growth in the produce auction market, in 2013, our team conducted 8 auction grower meetings across the region, each with pesticide license recertification credits, and assisted in the creation of new buyer educational materials. Additionally, hundreds of farm visits were made to auction growers to give them support on season extension, fertility, pest management and marketing for auction.



## Cornell Vegetable Program Develops Cutting-Edge Tomato Grafting Resources

The Cornell Vegetable Program is a statewide leader in the research and education of vegetable grafting. In our studies, grafting has significantly increased tomato yields and increased plant resistance to soilborne diseases. To help our growers determine if grafting is right for them, a video has been developed to educate them about the motivations and benefits of grafting. In addition, a how-to video was created to take interested growers through the supplies they will need to get started and provides helpful hints throughout the grafting process. But wait! There's more! To accompany the new grafting videos, a How to Graft Tomatoes factsheet is available detailing the steps to ensure grafting success! All of the new grafting resources are available on our website at [cvp.cce.cornell.edu](http://cvp.cce.cornell.edu).



## Training Growers on Wash Water Stations & Use of Sanitizers

As food safety standards have advanced, special focus has been put on wash water and the proper use of sanitizers. Building on 7 years of training farmers in Good Agricultural Practices for farm food safety, the Cornell Vegetable Program developed an interactive training on setting up and using wash stations and monitoring sanitizers while washing vegetable greens. Proper and efficient use of sanitizers is crucial to maintaining good food safety practices.



## CORNELL VEGETABLE PROGRAM *Benefits of Enrollment*

### Veg Edge Newsletter

Complimentary electronic subscription to our award-winning newsletter, *Veg Edge*. (Paper copies available for an additional annual fee.) Produced every few weeks, with frequency increasing leading up to and during the growing season. Includes a calendar of events, pesticide registration updates, and University and Extension articles on vegetable production, pest management and marketing.

### Requested Farm Visits

Cornell Vegetable Program Specialists have access to a wealth of information to help solve problems on the farm.

### Conduct/Coordinate On-Farm Research Trials

Cornell Vegetable Program Specialists lead and coordinate dozens of on-farm research projects in the region, making Cornell research highly relevant to Cornell Vegetable Program growers.

### Greenhouse Crop Walks

Annual demonstrations of pest management and variety trials conducted at a grower's greenhouse or high tunnel.

### Annual Fresh Market Veg Winter Meeting\*

Formal meeting designed to provide fresh market growers with the latest information on production practices, pest management and varieties.

### Finger Lakes Produce Auction Meetings\*

Winter meetings on pest management, fertility and auction marketing. Cornell faculty and growers from auctions in other states are guest speakers.

### Farm Food Safety Trainings with GAPs

Comprehensive, multi-day farm food safety training and mock audit instructed by the Cornell Vegetable Program, CCE, the Lake Ontario Fruit Team, and the Cornell National GAPs Program, with assistance from NY Dept of Ag & Markets.

### Empire State Producers Expo

All Cornell Vegetable Program Specialists serve on the planning committee for this major statewide event. They play vital roles in organizing and chairing the educational sessions.

### NYS Dry Bean Meeting\*

Full-day meeting with updates on production, pest management and marketing topics.

### Summer Twilight Meetings & Tours\*

Growers view on-farm research trials and demonstrations first hand.

### Cover Crop & Minimum Tillage Field Days\*

Meetings with tillage updates on production and pest management from growers, Extension and Cornell faculty.

\* reduced registration fees for Cornell Vegetable Program enrollees