Cornell Cooperative Extension | Cornell Vegetable Program

VEGEdge

YOUR TRUSTED SOURCE FOR RESEARCH-BASED KNOWLEDGE

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Fall Weed Control in Onions

Christy Hoepting, Cornell Cooperative Extension, Cornell Vegetable Program

YELLOW NUTSEDGE

For extra control of yellow nutsedge, Dual Magnum may be applied in the fall (Fig. 1). Apply Dual Magnum at 1 to 1.33 pt per acre to the soil surface after onion harvest in the fall as late as possible before the ground freezes. Soil temperatures should consistently be 55°F and lower. Above this temperature, soil microorganisms breakdown the active ingredient in the herbicide. Do not apply to frozen ground. Typically, onion growers in New York apply Dual Magnum in early to mid-November. Incorporate Dual Magnum to a shallow depth of no greater than 4 inches. In the following spring, do not disturb soil below the depth of Dual Magnum incorporation, as this could drastically reduce its effectiveness. Fall application of Dual Magnum is available as a Section 24(c) Special Local Needs Label in New York (EPA Reg. No. 100-816; EPA SLN No. NY-110004).

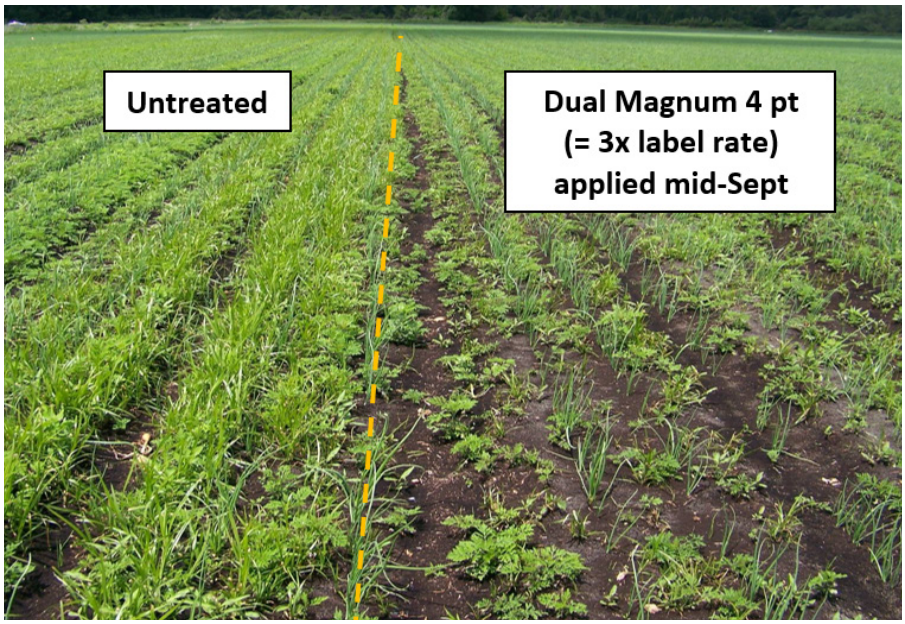

Figure 1. Effect of fall-applied Dual Magnum on yellow nutsedge. Photo taken on June 20th. In this study, Dual Magnum 4 pt (= 3x labeled rate) was applied in mid-September and shallowly incorporated. The field was not deep-plowed the following spring. At the 3-leaf stage, the fall application of Dual Magnum reduced the yellow nutsedge biomass by 90%. However, the onions treated with this high rate of Dual Magnum were significantly stunted by 15% (= 1.6 inch). *Photo: C. Hoepting, CCE Cornell Vegetable Program*

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About VegEdge

VegEdge newsletter is exclusively for enrollees in the Cornell Vegetable Program, a Cornell Cooperative Extension partnership between Cornell University and CCE Associations in 14 counties.

The newsletter is a service to our enrollees and is intended for educational purposes, strengthening the relationship between our enrollees, the Cornell Vegetable Program team, and Cornell University.

We're interested in your comments. Contact us at:
CCE Cornell Vegetable Program
480 North Main Street, Canandaigua, NY 14224
Email: cce-cvp@cornell.edu
Web address: cvp.cce.cornell.edu

Contributing Writers
Elizabeth Buck
Robert Hadad
Christy Hoepting
Esther Kibbe, CCE Harvest NY
Margie Lund
Julie Kikkert
Judson Reid

Publishing Specialist/Distribution/Sponsors
Angela Ochterski

VegEdge is published 25 times per year, parallel to the production schedule of Western New York growers. Enrollees in the Cornell Vegetable Program receive a complimentary electronic subscription to the newsletter. Print copies are available for an additional fee. You must be enrolled in the Cornell Vegetable Program to subscribe to the newsletter. For information about enrolling in our program, visit cvp.cce.cornell.edu. Cornell Cooperative Extension staff, Cornell faculty, and other states' Extension personnel may request to receive a complimentary electronic subscription to VegEdge by emailing Angela Ochterski at aep63@cornell.edu. Total readership varies but averages 700 readers.

Help us serve you better by telling us what you think. Email us at *cce-cvp@cornell.edu* or write to us at Cornell Vegetable Program, 480 North Main Street, Canandaigua, NY 14424.

Contents

The next issue of VegEdge newsletter will be produced on November 1, 2020.

Upcoming Events

View more events at CVP.CCE.CORNELL.EDU

Food Safety & Wash/Pack Facilities: Virtual Training

November 16, 2020 (Monday) | 8:45am - 1:15pm
FREE online training

A well-thought out Wash/Pack Facility can go a long way in improving produce quality, worker health and safety, and overall efficiency. But how can intentional design impact food safety? This virtual training will help farmers and workers understand the food safety risks present in wash/pack facilities and outline ways in which risks can be minimized. Topics that will be covered include:

- Common foodborne pathogens
- Sources and routes of contamination on the farm
- Personal health and hygiene practices
- Key aspects of facility design including ergonomics, hygienic design, and layout
- Post-harvest water management and sanitizer use
- Cleaning and sanitizing
- Tips for cleaning and sanitizing common wash-pack equipment

Register by visiting: https://cornell.zoom.us/meeting/register/tJ0pdeitpzopHddDRSBpt_dWf2eptEhenK0h

Or contact Robert Hadad, rgh26@cornell.edu, 585-739-4065.

Are you interested in receiving feedback on your layout? Have questions about cleaning your facility or equipment? **Please send photos, drawings, or maps of your facility or equipment to Caitlin Tucker, cv275@cornell.edu, by November 2nd**. Submitted photos will be included in the presentation to be discussed (anonymously) throughout the training.

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PERENNIAL SOWTHISTLE

Best control of perennial sowthistle (PST) was achieved with Roundup 4 pt (+ ammonium sulfate (AMS) 0.25% v/v) + 2,4-D Amine 2 pt (low rate) + Vision (a.i dicamba) 1 pt applied as a burndown treatment in the fall in 2014-2015 trial. This treatment was applied on Sep 18 when the majority of PST was at the mid- to late-rosette stage (= regrowth following harvest of early onion transplants) (Fig. 2). This treatment resulted in 93% mortality of above-ground foliage within 22 days after treatment (DAT) on Oct 10, (best in trial). By Jul 30 of the following year, compared to the untreated, this treatment had reduced PST ground cover by 49% and PST fresh biomass by 83% (best in trial). In the same trial, Roundup 4 pt + AMS 0.25% v/v alone resulted in only 21% mortality of above-ground foliage 22 DAT, and in 39% and 60% reduction of PST ground cover and biomass, respectively on the following Jul 30.

Re-growth of perennial sowthistle following the harvest of early-maturing transplanted onions is at the perfect stage of mid- to late-rosette to apply fall burndown herbicides. *Photo: C. Hoepting, CCE Cornell Vegetable Program*

Onion Update and Fall Cover Crops for Muck Soils

Christy Hoepting, Cornell Cooperative Extension, Cornell Vegetable Program

Onion harvest is nearing completion and has carried on at an excellent pace with few interruptions from rainy weather. Yields and quality has been variable including some pleasant surprises of big bulbs and yields. Plant cover crops when possible to prevent erosion of nonrenewable muck soil both in fall and spring, and to soak up any remaining nitrogen left in the soil. Table 1 lists some information on cover crops from Carol MacNeil, retired CCE-CVP Vegetable Specialist, from years ago with suggestions for final planting dates, which are within the next couple of weeks. With spring weather trending towards being colder and wetter, sticking with cover crops that winter-kill would be the safer option.

Table 1. Suggested Fall Cover Crops for Muck Soils (Carol MacNeil, retired CCE Vegetable Specialist, years ago)

Cover Crop Type	Rate per Acre	Notes	Date to Plant by
Oats	0.75-1 bu (20-30 lb)	Will winter-kill and the residue will protect fields early in the spring. Avoid heavy seeding rates as soils will not dry out in the spring.	Sept. 30
Spring barley	0.75-1 bu (30-40 lb)	Will winter-kill and leaves a residue into early spring. Warm temperatures in the spring will cause the residue to dissipate quickly.	Sept. 30
Winter barley	0.75-1 bu (30-40 lb)	Will remain green in the spring.	Oct. 15
Winter rye	0.75-1 bu (40-50 lb)	Will remain green in the spring, but must be plowed early. Vigorous growth causes stems and fiber to be a problem for some planting equipment.	Oct. 15

The CVP onion team finished harvesting the last of the onion trials Monday, September 28. Even though not all trials go to yield, this year, 15 tons of onions were harvested and hauled from on-farm trials to the Orleans County fairgrounds where they will be processed for yield and rot evaluation. Types of trials include evaluations of pre- and post-emergent herbicides, in-furrow drenches for control of pink root and nematodes, foliar root stimulants, foliar fungicides for control of Stemphylium leaf blight, bactericides for control of bacterial bulb rot, effect of nitrogen timing on yield and bulb rot and a variety rot trial. We look forward to analyzing and summarizing our data over the winter to learn what new results and recommendations we find to help our onion growers improve pest management.

Photos from CCE Orleans on Facebook

New York Sick Leave Requirement: What We Know, Still Don't Know, and Action Items

Richard Stup, Cornell University; from the Ag Workforce Journal

WHAT WE KNOW

The Law

New York State, in the 2020 budget act, mandated annual sick leave on a permanent basis. There is no exemption for farm employers from the sick leave requirement and we expect most farms with hired employees to be affected. The amount and type of sick leave required varies by employer size and income, as follow:

- For employers with 4 or fewer employees and **less than** $1 Million in net income: 40 hours of **unpaid** sick leave per employee
- For employers with 4 or fewer employees and **greater than** $1 Million in net income: 40 hours of **paid** sick leave per employee
- For employers with between 5 and 99 employees: 40 hours of **paid** sick leave per employee
- For employers with greater than 100 employees: 56 hours of **paid** sick leave per employee

Note that this is a new requirement for all employers, if you already provide sick leave that meets or exceed these levels then your policy already meets the requirement. Employers are not required to provide the sick leave until **January 1, 2021** but they are required to begin accruing hours of sick leave for employees on **September 30, 2020**.

Reasons to Use Sick Leave

The new law has detailed requirements about reasons for sick leave that your policy must also meet, including some that you might not expect. According to the law, employers must provide leave:

(i) for a mental or physical illness, injury, or health condition of such employee or such employee's family member, regardless of whether such illness, injury, or health condition has been diagnosed or requires medical care at the time that such employee requests such leave;

(ii) for the diagnosis, care, or treatment of a mental or physical illness, injury or health condition of, or need for medical diagnosis of, or preventive care for, such employee or such employee's family member; or

(iii) for an absence from work due to any of the following reasons when the employee or employee's family member has been the victim of domestic violence (…), a family offense, sexual offense, stalking, or human trafficking: (a) to obtain services from a domestic violence shelter, rape crisis center, or other services program; (b) to participate in safety planning, temporarily or permanently relocate, or take other actions to increase the safety of the employee or employee's family members; (c) to meet with an attorney or other social services provider to obtain information and advice on, and prepare for or participate in any criminal or civil proceeding; (d) to file a complaint or domestic incident report with law enforcement; (e) to meet with a district attorney's office; (f) to enroll children in a new school; or (g) to take any other actions necessary to ensure the health or safety of the employee or the employee's family member or to protect those who associate or work with the employee.

Accural and Carryover

Employees can accrue sick time at a rate of no less than 1 hour of sick time per 30 hours worked, or the employer can choose to award all of the sick time upfront at the beginning of the calendar year. If the upfront approach is used the employer is not permitted to reduce or revoke the awarded sick time if the employee ends up working fewer hours during the year than expected. Unused sick time must carry over to the next year but employers with less than 100 employees can limit accrued sick time to 40 hours, and employers with greater than 100 employees can limit it to 56 hours.

WHAT WE *STILL* DON'T KNOW

In spite of repeated requests by employers, business organizations, accountants, attorneys and this author, the NYS Department of Labor has not yet provided details about many important questions relevant to farm employers.

- How will net income be calculated? What formula will NYS Department of Labor use?
- What about seasonal farm employees, are they included in the sick leave requirement? How many hours or days must they work each year to be included in the employer's number of employees?
- Can employers provide a pro-rated amount of sick days upfront to seasonal employees, such as 20 hours for employees who work 5-6 months, or must the hourly accrual of 30:1 be used?
- What about family members who work on the farm as defined in the Farm Laborer Fair Labor Practices Act, is sick leave required for them?
- What about youth workers, employees under age 18, are they included in the sick leave requirement?
- What about different business entities with varying levels of share ownership? Which of those entities will be combined in order to calculate the number of employees?

We will continue to press for answers to these and other relevant questions and will share this information through written releases and employer training when available.

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ACTION ITEMS FOR EMPLOYERS

1. Track hours worked for all employees beginning September 30, 2020, if not already doing so. Employers can always go back and credit employees with sick time earned if the number of hours worked is known.
2. Consider adopting modern software and tracking systems to create employee schedules, record hours worked, integrate with payroll, and keep track of sick leave and vacation accrual and usage for all employees.
3. Review your current sick leave policy and update as needed.
4. Train managers and employees about your sick leave policy and any changes that will occur.
5. Stay tuned to the Ag Workforce Journal and other industry newsletters for more information about New York's sick leave requirements. ●

Cole Crops Update: Is It Black Rot?

Christy Hoepting, Cornell Cooperative Extension, Cornell Vegetable Program

Combination of dry weather over past couple of weeks and excellent fungicide spray programs (see **Fungicide "Cheat Sheet" for ALS and Head Rot in Broccoli and Other Cole Crops** on the Cornell Vegetable website) have kept Cole crop foliage very clean (Fig. 1).

Black rot may be confused with Alternaria leaf spot (Fig. 2). When severe, black rot can blight the leaves at the expense of yield and the bacterial pathogen may become systemic in the plant causing unmarketable discoloration of the vascular system (Fig. 3). Black rot is favored by high temperatures (75 to 95°F) and wet leaves; even though fall conditions tend to be wet, they are no longer accompanied by the heat that would really drive the disease to become systemic. The odd outbreak of black rot lesions should not get out of hand and cause economic losses at this time. Since black rot is a bacterial pathogen, most fungicides used for ALS will have no effect on it. So, if you think your fungicide program is not controlling ALS, take a closer look to see if the lesions are black rot or downy mildew. See September 2nd issue of VegEdge for tips on distinguishing ALS from downy mildew lesions on page 10.

If you need a print copy of any of the online resources mentioned above, please contact Christy Hoepting at 585-721-6953.

Figure 1. This gorgeous field of broccoli has remained free of leaf diseases and head rots as a result of dry weather and following Cornell fungicide recommendations. *Photo: C. Hoepting, CCE Cornell Vegetable Program*

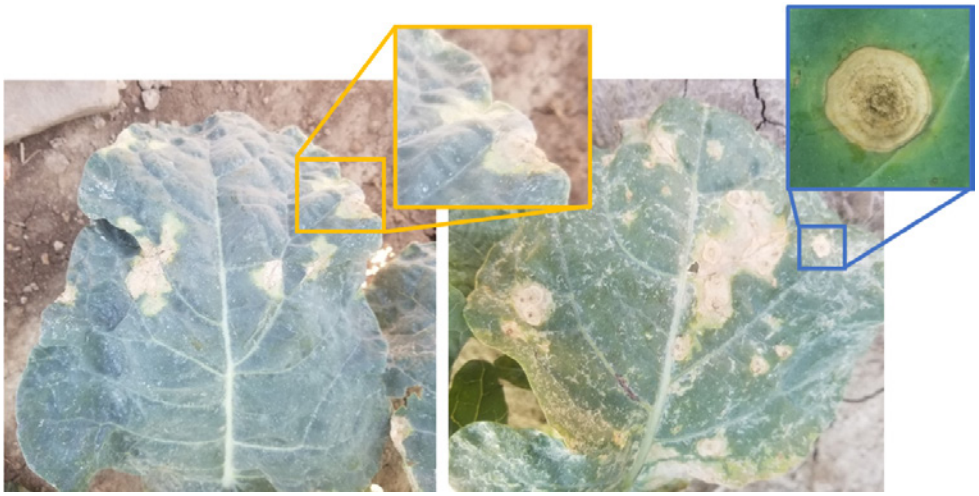

Figure 2. **Left:** Broccoli leaf infected with black rot. Typically, V-shaped lesions infect the leaf along the leaf margin (yellow). This is because the bacterial pathogen enters into the plant via water droplets through the hydathodes. On this leaf, angular necrotic black lesions are also occurring on the center of the leaf. In this case, the bacterial pathogen likely entered into the plant via wounding from heavy wind and rain. **Right:** Round target-spot lesions of Alternaria leaf spot (close-up of solitary lesion in blue) invading angular necrotic leaf tissue caused by black rot. Fungicides used for ALS typically have no activity on black rot. *Photo: C. Hoepting, CCE Cornell Vegetable Program*

Figure 3. Systemic infection of black rot in cabbage where the veins turned black. *Photo: C. Hoepting, CCE Cornell Vegetable Program* ●

Traceability: The Two-Step Shuffle

Robert Hadad, Cornell Cooperative Extension, Cornell Vegetable Program

For those of you who have attended our GAPs trainings, you probably remember fondly the section on trace-back or traceability. Maybe you don't remember it fondly. Maybe you don't even remember it. It goes like this... It is the ability of a grower to follow where their produce goes – *one step forward* and where it came from – *one step back*. Ring a bell?

For a GAPs audit, this was a requirement. It meant that you could find out from a buyer what produce of yours they might still have at a given time and through a label on the load, you could trace back where it came from on the farm, the date it was harvested, how much, and possibly other information. The process meant you had to have good record keeping, field maps, harvest log sheets, and a good invoicing system. Then you needed to have a label to go on produce boxes that included farm name and address, type of vegetable, and a code you created that would reference dates and other information.

The FDA is looking at a proposed rule to make traceability in accordance of the FSMA rule. Presently the proposed rule is being put out to the public for comment. It will start off by applying to the food industry dealing with manufacturing, processing, packing, or holding foods. The new rule would require these operations to establish and maintain records with the information needed to track the supply chain. The rule is intended to help provide more information on where produce comes from in the event of a food-borne disease outbreak.

What this could mean for growers is they will have to meet the requirements their buyers will want for the buyer to trace back to the farm. If your operation doesn't have GAPs then you don't have a trace-back program, your buyer may insist on you having traceability. This is not the end of the world (except for the record keeping time and energy part of course!).

As with other FDA and government rulemaking, it will take time to implement. The public comment period extends for 120 days (having begun on 9/21). Then the FDA will review the comments and adjust their rules accordingly. Then usually, a draft will come out again for public review which might be a couple of months. Sometime later, a date will be given for the phase in of implementation.

If you are just dying to get ahead of the curve and want to review what it will take for a trace back program to be set up for you farm, we can help. Here is the FDA announcement. If you need a copy of the announcement or help with trace back, contact Robert Hadad for assistance, 585-739-4065, rgh26@cornell.edu.

Fall Strawberry Management

Esther Kibbe, Cornell Cooperative Extension, Harvest NY

It is easy to forget about your strawberries this time of year, with the focus on fall crops, but there are some critical activities that will set you up for a successful crop next spring. As days shorten, and temperatures cool, the plants are creating the flower buds for spring, and storing up energy for winter survival, so disease management and weed control are important right now.

DISEASES

Some strawberry fields are showing serious powdery mildew and leaf spot issues. These reduce the plant's ability to store energy and can negatively impact winter survival. Infections now will also contribute to disease developing in the spring, when it will be more difficult to manage, due to spray restrictions around bloom and harvest. **Powdery mildew** causes leaves to curl upwards or show whitish spots. Even more obvious are the other foliar diseases: Leaf Spot, Leaf Scorch and Leaf Blight. **Leaf Spot** causes purplish lesions with brownish or gray centers. **Leaf Scorch** lesions look very similar, except that the centers stay purple, and can eventually cover the whole leaf. **Leaf Blight** lesions look similar early on, but will grow to form a dry brown v-shaped lesion. Each has a slightly different set of approved fungicides, with some overlap – be sure to check the labels or the Cornell Guidelines. Before autumn rains saturate the soil, September and October are a good time to apply Ridomil Gold or Phostrol to reduce **Red Stele** and **Phytophthora** root rots.

WEEDS

Fall is a critical time to manage weeds in strawberries. Hand weed or cultivate to reduce perennial weeds going into winter. Preemergent herbicides such as Dacthal, Devrinol and Sinbar can be applied now until you cover with straw mulch or fleece. 2-4,D and Stinger may be used for specific weed issues. Be sure you know the types of weeds in your field – some may require a particular herbicide for successful control.

WINTER COVER

Be sure you have a supply of clean wheat or oat straw ready to apply to protect the strawberries for the winter. You will need enough to create a layer 3-5 inches deep over the crowns. Don't apply straw until the plants are starting to go dormant, usually late November to early December, but it is important to be ready – good straw can be hard to find.

If you'd like a farm visit to help with disease, pest or weed identification, I am available to help all berry growers across WNY. Call 607-351-1991 to schedule a visit, or ask questions.

Leaf blight infection often develop into V-shaped lesion.

Leaf spot lesions are purplish, with a pale center.

Powdery mildew causes leaves to curl upwards, and infected areas can turn purple or brown after treatment.

Photos: E. Kibbe, HNY

Northeast SARE Invites Applications for Farmer Grant Program

Northeast SARE is now accepting applications for its Farmer Grant Program. Up to $15,000 is available per project. The online system opens on Oct. 1 and applications are due by 5 p.m. on Nov. 17, 2020. The Farmer Grant Program funds farmers to explore new concepts in sustainable agriculture on production, marketing, labor, farm succession, social capital and other areas through experiments, surveys, prototypes, on-farm demonstrations or other research and education techniques. Grants may not be used to help start or expand farm businesses. Application materials, including detailed instructions and supporting documents, are posted at www.northeastsare.org/FarmerGrant.

Northeast SARE is offering a free webinar on how to apply for a Farmer Grant on Tuesday, October 6, 2020 from noon to 1 pm. Grant coordinator Candice Huber will provide an overview of the program and answer questions about Farmer Grant projects. She will be joined by NH farmer Jennifer Wilhelm who will share her experiences of applying for, receiving, and conducting Farmer Grant projects. Register for the webinar at https://uvmextension.zoom.us/webinar/register/WN_8UpNouR2RfCYPaHX5H3BmQ ●

New York Agrivoltaic Development Assistance Project

Agrivoltaic systems combine production of solar energy and agriculture by planting crops, forage, and/or plants for pollinators and other beneficial insects underneath solar panels. Like conventional solar photovoltaic (PV) projects, agrivoltaic systems can reduce farm energy expenses and provide a hedge against increases in electricity prices.

The New York Agrivoltaic Development Assistance Program is providing free agrivoltaic system assessments to a select number of farmers in New York State. We will provide an unbiased, third-party assessment to evaluate the viability and benefits of installing an agrivoltaics system at your farm. Based on the needs and interests of your farm, we will work with you to determine the optimal agrivoltaics system for your business.

Your agrivoltaic assessment can be used to support a USDA Rural Energy America Program (REAP) application, which provides grants covering up to 25% of eligible project costs, and loan guarantees on loans up to 75% of total eligible project costs.

To request an application or learn more about how agrivoltaics may benefit your farm, reach out to Emma Kubinski at (585) 737-2070 or send an email to ek687@cornell.edu.

This program is offered on a first-come, first-served basis and funding is limited. Apply now to reserve your spot! ●

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VegEdge is the highly regarded newsletter produced by the Cornell Vegetable Program. It provides readers with information on upcoming meetings, pesticide updates, pest management strategies, cultural practices, marketing ideas and research results from Cornell University and Cornell Cooperative Extension. VegEdge is produced every few weeks, with frequency increasing leading up to and during the growing season.

VEGETABLE SPECIALISTS

Elizabeth Buck | 585-406-3419 cell | emb273@cornell.edu
fresh market vegetables, weed management, soil health

Robert Hadad | 585-739-4065 cell | rgh26@cornell.edu
farm food safety, organic, business & marketing, fresh market vegetables

Christy Hoepting | 585-721-6953 cell | cah59@cornell.edu
onions, cabbage, broccoli, garlic, pesticide management

Julie Kikkert, Team Leader | 585-313-8160 cell | jrk2@cornell.edu
processing crops (table beets, carrots, peas, snap beans, sweet corn)

Margie Lund | 607-377-9109 cell | mel296@cornell.edu
potatoes, dry beans, and post-harvest handling and storage

Judson Reid | 585-313-8912 cell | jer11@cornell.edu
greenhouses/high tunnels, small farming operations, fresh market vegs

PRECISION AG SPECIALIST

Ali Nafchi | 585-313-6197 cell | anafchi@cornell.edu

PROGRAM ASSISTANTS

John Gibbons | jpg10@cornell.edu

Angela Ochterski | aep63@cornell.edu

Caitlin Tucker | cv275@cornell.edu

Sarah Vande Brake | sv483@cornell.edu

Emma van der Heide | ev247@cornell.edu

ADMINISTRATION

Peter Landre | ptl2@cornell.edu

Steve Reiners | sr43@cornell.edu

Cornell Cooperative Extension
Cornell Vegetable Program

For more information about our program, email cce-cvp@cornell.edu or visit CVP.CCE.CORNELL.EDU