# Cornell Cooperative Extension

Eastern NY Commercial Horticulture Program

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# **Vegetable News**

#### **Prepare Now for Late Summer and Fall Harvests** Gordon Johnson, Extension Vegetable & Fruit Specialist, University of Delaware Cooperative Extension

Source: Weekly Crop Update, Volume 27, Issue 12

As the seasons moves along rapidly, I thought this little reference article would be good to include as the planting windows of some crops are rapidly closing and some are still a bit away! However, Dr. Johnson wrote this with Delaware growing conditions in mind which is probably find for our southern-most counties, but as you move north, I would think about moving these timeframes back about 3 weeks in the Capital District and probably more like 5-6 weeks in the northern region.—Chuck Bornt

Plantings for late summer and fall-harvested vegetables will be underway in the next few weeks. Timing these plantings can be a challenge, especially where multiple harvests are needed. Plantings from early July through the beginning of September may be made, with cutoff dates depending on the crop, variety, and season extension methods such as row covers, low tunnels, and high tunnels.

These plantings can be divided into 2 groups: 1) warm season vegetables for harvest up to a killing frost and 2) cool season vegetables for extended harvest in the fall.

The three main factors influencing crop growth and performance in the fall are day length, heat units, and frost or freeze events. A few days difference in planting date in the summer can make a big difference in days to maturity in the fall.

Warm season vegetables for fall harvest include snap beans, squash, and cucumbers. July plantings of sweet corn can also be successful to extend seasons for farm stands. Mid-July plantings of tomatoes and peppers also are made for late harvests, particularly in high tunnels.

Cool season vegetables for fall harvest include cabbage, broccoli, and cauliflower; the cole crop greens, kale and collards; mustard and turnip greens; turnips for roots; spinach; beets; lettuce; leeks; green onions; and radishes.

To extend harvest in the fall, successive plantings are an option. However, days between plantings will need to be compressed. One day difference in early August planting for a crop like beans can mean a difference of several days in harvest date.

Another option to extend harvest in the fall is with planting different maturing varieties at the same time. This is particularly successful with crops such as broccoli and cabbage where maturity differences

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of more than 30 days can be found between varieties. Another way to get later harvests is to use rowcovers or protecting structures (high tunnels). This can allow for more heat accumulation and will aid with protection against frost and freezes. Decisions on what type or combination of covers/protection to use and when to apply the protection will influence fall vegetable maturation and duration of harvest. In general, plantings of cool season crops can be made 30-45 days later in high tunnels than in outside production.

A final factor for summer planting for fall production is on planting cutoff dates. For example, a crop such as cucumber may produce well with an August 2 planting but poorly with an August 8 planting; broccoli has a wider planting window than cauliflower; turnip greens have a wider planting window than kale.

# Planting Window for Fall Harvested Warm Season Vegetables (harvest September through Frost):

Snap Beans: July 10 through August 10

Lima Beans: June 15 through July 15

*Cucumbers*: July 10 through August 7 (high tunnel transplanted up to September 1)

Peppers: Transplant up to July 10 (high tunnel up to July 30)

*Pumpkins and Winter Squash*: Direct seed through June 30 (July 10 for short season varieties)

*Summer Squash*: Direct seed July 15 through August 15 (high tunnel up to September 1)

Sweet Corn: Direct seed July 1 through July 30

*Tomatoes*: Transplant July 20 through July 5 (high tunnel up to July 30)

#### Planting Window for Fall Harvested Cool Season Vegetables

(harvest September – December). For transplants, seed 3-6 weeks prior to desired planting date (8 weeks for leeks and onions).

Beets: Direct seed July 1 through August 10

Swiss Chard: Direct seed July 15 through August 20 (high tunnel up to September 30)

Broccoli: Transplants July 15 - August 20

Brussels Sprouts: Transplants June 20-July 10

Cabbage: Transplants July 1 - August 20

*Cauliflower*: Transplants July 20 through August 10

*Kale*: Transplants July 15 through August 30 Kale: Direct seed July 1 through August 15 (high tunnel up to September 30)

Collards: Direct seed July 15 through August 15

*Carrots*: June 20 through July 10 (high tunnel through September) *Turnip Greens*: August 1 through September 10 (high tunnel up to September 30)

*Turnip Roots*: August 1 through August 30 (high tunnel up to September 20)

*Mustard Greens*: August 1 through September 10 (high tunnel up to September 30)

Leeks: Transplant July 20 through August 10

Lettuce (full head stage): Direct seeded August 1 through August 20 Lettuce (full head stage): Transplants August 10 through August 30

*Lettuce (baby stage and cut salad mix*): Direct seed August 1 through September 15 (high tunnel up to October 15)

Onion (green bunching): Direct seed July 1 through August 30 (high tunnel through September 30) Parsley: direct seed July 15 through August 15 (high tunnel through September 15)

*Radishes (salad):* Direct seed August 1 through September 30 (high tunnel through November30)

*Radishes (Daikon):* Direct seed August 1 through September 10 (high tunnel up to September 30)

*Spinach*: Direct seed August 10 through August30 (high tunnel up to September 30)

#### Cautions with Herbicides In and Around High Tunnels and Greenhouses

Gordon Johnson, Extension Vegetable & Fruit Specialist, University of Delaware Cooperative Extension

Source: Weekly Crop Update, Volume 27, Issue 12

Each year, there are cases where vegetables in high tunnels and greenhouses are injured by herbicides. Drift from herbicide applications near greenhouses and high tunnels can cause major losses. Small spray particles can move long distances with wind. This is called particle drift which is commonly associated with herbicides such as paraquat. Vapor drift occurs when the herbicide volatilizes and then moves in the air, which is common with ester formulations of 2,4-D. Growth regulator herbicides are often of most concern for drift damage to high tunnel and greenhouse crops. This group includes dicamba, 2,4-D, MCPA, MCPP, triclopyr, picloram, clopyralid, aminopyralid, and quinclorac. Drift from these herbicides can occur over one mile from where they were applied.

Sources for drift can be crop field, turf and lawn care, right of way, and other applications. Another issue is with applications to control weeds around greenhouse or high tunnel structures themselves. Tomatoes and other solanaceous crops such as potato and eggplant are particularly susceptible to damage from these growth regulator type herbicides. The most common symptom of this injury is the twisting of petioles and deformed leaflets. Stem and petiole elongation, downward cupping or rolling of new leaves, stem splitting, vein yellowing, and stunting may also be observed. The most susceptible period for greenhouses and high tunnels is when the sides or ends are fully open. In areas surrounding high tunnels or greenhouses, do not use herbicides that might contaminate the greenhouse or environment by volatilization or movement in water. Do not use growth regulator type herbicides, such as those labeled for broadleaf weed control in turf, near greenhouses or high tunnels. Do not use soil sterilant herbicides such as Picloram, Arsenal, Oust, or Casoron around greenhouses or high tunnels.

#### Be on the Lookout for Tarnished Plant Bugs Teresa Rusinek, ENYCHP, Cornell Cooperative Extension

Tarnished plant bug (TPB) has been observed in eggplant, peppers and celery this past week but they have a wide host range so it's likely they are in other crops such tomato, lettuce, even cauliflower. It doesn't take too many TPBs to cause significant injury, so check crops before the damage is done! TPB prefer to feed on buds, flowers and young developing fruit. They

feed by sucking sap from plants and inject a toxic substance that breaks down plant tissue. TPB feeding causes abortion of young fruit and buds. Fruit feeding



Left: Tarnished Plant Bug nymph. Photo: UF Entomology Dept. Right: Tarnished Plant Bug adult. Photo: University of Kentucky

causes blemishes and dimples and deformed vegetative growth. TPB may move into crops from weedy borders as well as neighboring alfalfa fields especially at cutting. TPB is active now through the growing season. Some materials labeled for TPB are Baythriod XL, Hero, Sevin XLR, and Warrior II w/Zeon. For organic production Pyrethrum and Neem based products have shown to give limited control. Important: When using pyrethrins, it is recommended that the final spray mix be buffered to a pH of 5.5-7.0. Outside of this range pyrethrins can degrade and the product will lose effectiveness. Carefully read labels for rates, labeled crops as well as other important application directions.

#### Leek Moth Update Vistor Izzo, University of Vermont

Leek moth is an invasive pest in Northern New York that can cause significant losses of Allium crops. Researchers at the University of Vermont and St. Michael's College will be testing new strategies to manage this pest. If you have leek moth on your farm, please take the time to fill out their survey (link within the text below) to receive informational materials on leek moth management and to help inform their research program. – Elisabeth Hodgdon, ENYCHP



Figure 1: Larval feeding damage from leek moth in onion. Photo: Amy Ivy, Leek Moth information Center.

The second leek moth flight of the season has begun throughout much of Vermont. Adult leek moths mate at night, laying eggs on all alliums. Shortly thereafter, you will begin to see the characteristic windowpane feeding damage of the leek moth caterpillars. The next generation, resulting from the second flight, have the potential to do significant damage to allium bulbs due to the timing of this larval generation. If these leek moth caterpillars are feeding on allium leaves at the time of harvest, the caterpillars will move into the bulbs as the leaves die down. Feeding damage and exit holes on bulbs while in storage can

significantly reduce their marketability and open the bulbs up to secondary infection.

The Vermont Entomology Participatory Action Research Team (VEPART) recently began a NE-SARE funded project exploring preand post-harvest tactics for reducing the impact of leek moth in the Northeast. The results of this project will hopefully provide farmers with adaptable and affordable low-tech options for managing leek moth in allium crops. Furthermore, the development of nonchemical options for the control of leek moth will help reduce the dependency on chemical controls and helps to diversify the current IPM toolbox for more sustainable control of the leek moth. Please take a moment to complete the following survey (<u>https://forms.gle/wFeoqPcxERrF7aAe8</u>), it will greatly improve our ability to help growers in the Northeast.

The few known management options include covering plants with row cover at night to exclude the nocturnal female moths from laying eggs. Where this is not feasible or cost effective, chemical controls should be applied. Spinosad (Entrust, organic) and spinetoram (Radiant SC, conventional) have been shown to be effective chemical controls but must time timed appropriately, especially in onions because of caterpillar feeding behavior. Canadian research has consistently found that properly timed insecticide

applications made 7 -10 days following a peak flight of leek moth adults can effectively manage damage resulting from the following larval generation. For more information about leek moth check out

the newly-updated

information center

leek moth



Figure 2: Leek moth damage to garlic scapes. Photo: Amy Ivy, Leek Moth information Center.

website (<u>https://nysipm.cornell.edu/agriculture/vegetables/leek-moth-information-center/</u>).

If you have any questions or concerns about leek moth please contact Vic Izzo at <u>vizzo@uvm.edu</u> and/or Scott Lewins at <u>slewins@uvm.edu</u>.

# New York State Legislature—Late Night Lawmaking Jack Hornickel

Jack Hornickle, the legal counsel with GrowNYC (Greenmarket) provided the following. It is a snapshot view of the ag-related legislation that was introduced at the very end of session last week. I encourage farmers to research more, especially on the changes to the labor regulations/removal of exemptions. There are details that vegetable growers need to be aware of further than that overtime will now begin at 60 hours. –Maire Ullrich

After the 2018 midterm elections established a unified New York State government- with Democratic majorities in the legislature and Governor Cuomo taking his third term -all eyes were on Albany as a wave of progressive laws were expected to pass, many affecting small farm businesses. But divisions within the Democratic Party and the ever-ticking



Photo: www.albany.org/listing/new-york-state-capitol/893/

shot clock made for a dramatic finish to the legislative calendar this week. Here is a breakdown of what PASSED and what FAILED in the final moments:

#### 1. PASSED: Farmworker Fair Labor Practices Act ("FFLPA")

This law--a compromise reached after statewide testimony from farm employers and employees—overhauls state labor law as it relates to farm employment. The compromise FFLPA requires employers to pay time-and-a-half overtime wages after 60hr/wk, with no daily threshold; creates a Farm Laborers Wage Board to study the impact of the overtime law; guarantees collective bargaining rights to farmworkers, while prohibiting strikes and lockouts; guarantees one day of rest per week; expands access to employment benefit programs, such as Unemployment Insurance, Workers Compensation, Disability, and Paid Family Leave (while eliminating Unemployment Insurance for H-2A foreign visa workers, who could never redeem the benefits); and expands farm labor housing inspections.

#### 2. PASSED: New York Agricultural Investment Task Force Act

This law creates a temporary task force, convening in July of 2019, to study and evaluate the agricultural economy in New York State. The task force must report its findings and make recommendations by November of 2019, in time for consideration in future budget negotiations.

#### 3. PASSED: Driver's License Access and Privacy Act ("Green Light NY")

This law creates a permitting process for all New Yorkers to obtain non-commercial drivers licenses, regardless of immigration status. It expands the documents accepted for proof of identity, and instead of submitting a social security number, applicants may sign an affidavit. Applicant information is then protected from disclosure to immigration enforcement agencies, except when ordered by a court.

#### 4. PASSED: Climate Leadership and Community Protection Act

This law sets the most ambitious emissions reductions goals in the country: New York State must operate on 100% net-zero emissions by 2050, meeting the energy demands with 85% renewable and negating the other 15% fossil fuel emissions with carbon offsets. To meet these aggressive targets, the law establishes the New York State Climate Action Council, to report on emissions, measure reductions, steer a climate justice working group, target investments, and establish a dollar value for carbon.

#### 5. PASSED: Stronger Protections from Sexual Harassment in the Workplace

This law extended protections to new classes of workers, including government employees, domestic workers, and independent contractors. It also lowered the standard for proving harassment and extended the statute of limitations for filing a complaint.

#### 6. FAILED: Marijuana Regulation and Taxation Act

This law would have created a legal, regulated, and taxed market for recreational marijuana, redistributing tax revenues to social welfare programming. The law would have also expunged the records of low-level marijuana offenses and modernized the medical marijuana program.

## Want to Schedule an On-Farm Readiness Review (OFRR) this Season?

#### Elisabeth Hodgdon, ENYCHP, Cornell Cooperative Extension

On-Farm Readiness Reviews are voluntary educational farm visits to help growers prepare for compliance with the Food Safety Modernization Act (FSMA) Produce Safety Rule (PSR).

One representative from the New York State Department of Agriculture and Markets (NYSDAM) along with a Cornell Cooperative Extension member will tour the farm, observe produce growing, harvesting, handling, and storing activities, and have a conversation with the grower about food safety and whether the farm is meeting PSR requirements. All notes taken during the visit will stay on the farm. Volunteering for an OFRR is an excellent way to prepare for future inspections.

On-Farm Readiness Reviews are scheduled through NYSDAM. This summer, NYSDAM is prioritizing scheduling OFRRs for the largest farms (>\$500,000 produce sales) that may be inspected this year. If you'd like an OFRR, contact Steve Schirmer directly at (315) 487-0852 or <u>steve.schirmer@agriculture.ny.gov</u>. Before the visit is scheduled, you'll be asked to fill out a farm information form, where you will list your business's contact information and answer questions relating to your farm's products and total produce sales. Then, NYSDAM will reach out to you and the nearest trained CCE county or regional educator to schedule the OFRR time. For more information about OFRRs and FSMA compliance, please contact Elisabeth Hodgdon.



### **Corn Trap Counts**

Location	CEW	ECB-Z	ECB-E	FAW	WBC
Albany	1	3	1	0	0
Columbia	х	1	0	0	0
Fulton	0	0	0	0	0
Ulster 1	0	1	0	0	0
Washington	x	0	0	10	0
Rensselaer	0	0	0	0	0
Clinton 1	1	0	1	0	0
Clinton 2	0	0	0	0	0
Ulster 2	0	0	2	0	0
Orange	1	2	1	13	3

# **Upcoming Events**

#### Summer Pesticide Certification Exam Trainings

July 2, July 9, July 16, July 23, 2019 - 1:30pm-4:30pm CCE Clinton County, 6064 Route 22, Suite 5, Plattsburgh

CCE ENYCHP Horticulture Specialists Mike Basedow and Elisabeth Hodgodon will be offering four afternoons of training to review key concepts and study tips in preparation for the exam.

#### <u>FSMA/PSA Grower Food Safety Training Course</u> July 15, 2019 - 8:00am-5:30pm CCE Warren County, 377 Schroon River Rd, Warrensburg, NY

A grower training course developed by the Produce Safety Alliance (PSA) that meets the regulatory requirements of the Food Safety Modernization Act (FSMA) Produce Safety Rule. At least one person per farm producing more than \$25,000 worth of fruits and vegetables must attend this course once. Participants will receive a certificate of course completion by the Association of Food and Drug Officials. To register, visit: <u>bit.ly/JulyFSMA</u>

#### Summer 2019, 20-minute Ag Manager Lunchtime Webinar Series Focused Business Topics for Busy Managers

12:30pm—1:00pm on alternating Tuesdays, June through August

June 18—Making Capital Investment Decisions July 2—Understanding Financial Statements 1 (Balance Sheets) July 16—Understanding Financial Statements 2 (Income Statement) July 30—Understanding Financial Statements 3 (Budgets and Analysis) August 13—Ag Tax Topics - the Schedule F August 27—Ag Tax Topics - Sales Tax and Property Tax Issues for Ag in NYS

To register, visit: <u>bit.ly/AgManagerWebSeries</u>

#### Post-Harvest Washing and Cooling Workshop August 1, 2019 - Pleasant Valley Farm, Argyle, NY

Workshop will feature FSMA compliant workstations that you can use on your small vegetable and berry farms. There will also be a forced-air cooling demonstration—all things that you can easily (and affordably!) build yourself. Chris Callahan from UVM Extension Ag Engineering program will be leading the workshop. More information soon.

#### Willsboro Farm High Tunnel Twilight Meeting August 27, 2019 - 5:00pm-7:00pm Cornell Willsboro Research Farm, 48 Sayward Lane, Willsboro

Join vegetable specialists Elisabeth Hodgdon, Jud Reid, and farm manager Mike Davis for a high tunnel and field tour at Cornell's Willsboro Research Farm, where they will share research results for the following projects:

- Striped cucumber beetle management using netting and row cover
- Varietal differences in cucumber susceptibility to striped cucumber beetle
- Ground cherry and goldenberry production in field and high tunnel environments
- Overwintered high tunnel spinach nitrogen fertility

Depending on availability, a taste-testing of the different cucumber, ground cherry, and goldenberry varieties will be held. This free program is made possible through funding by the Northern NY Agricultural Development Program.

## Vegetable Specialists

Chuck Bornt Phone: 518-859-6213 Email: cdb13@cornell.edu

Ethan Grundberg Phone: 617-455-1893 Email: eg572@cornell.edu

Elisabeth Hodgdon Phone: 518-650-5323 Email: eh528@cornell.edu

**Teresa Rusinek** Phone: 845-340-3990 x315 Email: tr28@cornell.edu

Crystal Stewart Phone: 518-775-0018 Email: cls263@cornell.edu

Maire Ullrich Phone: 845-344-1234 Email: mru2@cornell.edu

## Business Specialist

Liz Higgins Phone: 518-949-3722 Email: emh56@cornell.edu

## **ENYCHP Office**

**Chelsea Truehart** Phone: 518-746-2553 Email: ct478@cornell.edu

#### www.enych.cce.cornell.edu



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