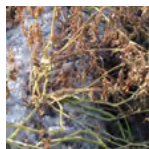




# VEGEdge

YOUR TRUSTED SOURCE FOR RESEARCH-BASED KNOWLEDGE

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Potato Vine-Killing Options for 2024

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## Potato Vine-Killing Options for 2024

Sandra Menasha and Andrew Senesac, CCE Suffolk County; from Long Island Fruit & Vegetable Update, 8/15/24

Guidelines for using these materials are listed below but always read and follow the pesticide label before use.

**Diquat dibromide:** The material labeled is **Reglone 2L**. Reglone can be used for vine desiccation in seed, storage, and fresh-market potatoes. Application to drought stressed potatoes will decrease effectiveness. However, if the vines are dead and weed control is the goal, there will be no negative impact to the tubers. Application rate is 1-2 pts/A. A nonionic surfactant should be added according to the label. If vines are dense, a second application can be made 5 days after the first. Do not exceed a total of 4 pts/A in a season. A 30-minute rain free period is needed post application and there is a 7-day PHI. Reglone provides fair control of grasses and ragweed. Split applications may provide fair control of smartweed.

**Paraquat dichloride:** Materials labeled include **Quik-Quat**, **Devour**, **Parazone 3SL**. They are labeled for **fresh-market potatoes only** and are the best suited materials for grassy fields. Do not apply to drought stressed plants or vigorously growing vines. A nonionic surfactant or crop oil concentrate should be included according to the product label. Application rate is 0.7-1.3 pts/A. Two applications can be made per season but not to exceed 2.6 pts/A per season. Split applications must be applied a minimum of 5 days apart. Pre-harvest interval is 3 days, and a minimum 30-minute rain-free period is needed after application. Note: certified applicators must successfully complete an EPA-approved training program before mixing, loading, and/or applying paraquat. Required training can be found at <https://npsec.us/paraquat>.

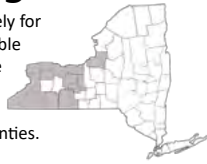
**Carfentrazone-ethyl:** The material labeled is **Aim**. Aim is best applied during the later stages of desiccation. In addition, it will also desiccate late season susceptible broadleaf weeds. Adequate desiccation is achieved 14 days after application. Dense canopies and fields in active vegetative growth may require 2 applications (7-14 days apart). Thorough coverage is essential. Include a COC, NIS or MSO in the tank mix for optimal performance. Application rate is 3.2-5.8 fl oz/A when used alone or 2.0 -5.8 fl oz/A when tank mixed with other desiccants. Pre-harvest interval is 7 days.

**Pyraflufen-ethyl:** The material labeled is **Vida**. Vida is labeled for all potato varieties during the early stages of vine desiccation and provides effective control of late-season broadleaf weeds. The application rate is 2.75 – 5.5 fl oz/A and should not exceed 11 fl oz per acre per season. A second application may be necessary but should not be applied 7 days from the last application.

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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](mailto:cce-cvp@cornell.edu) Web address: [cvp.cce.cornell.edu](http://cvp.cce.cornell.edu)

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CCE and its employees assume no liability for the effectiveness or results of any chemicals for pesticide usage. No endorsement of products or companies is made or implied. READ THE LABEL BEFORE APPLYING ANY PESTICIDE.

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



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**The next issue of VegEdge will be produced on September 11, 2024.**

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Apply with either a non-ionic surfactant or crop oil concentrate in 20-50 gallons of water/acre and use an approved buffering agent if the pH is greater than 7.5. A grass herbicide or desiccant like diquat can be tank-mixed for improved desiccation. Vida is rainfast within an hour and there is a 7-day pre-harvest interval.

**Sodium chlorate: Defol 5** is a defoliant/desiccant registered for use on potatoes in New York (including Long Island). Although other defoliants such as paraquat and diquat have largely superseded it, Defol-5 is a viable alternative to those for potato vine killing. The label suggests adding either a nonionic surfactant or a crop oil for improved foliar retention. To avoid fire hazard, do not tank mix with insecticides or other pesticides. From the label: 'Ideally, defoliation is favored on clear, calm, sunny days with high temperatures and high humidity. If rain is anticipated within 24 hours, application should be delayed whenever possible. To defoliate plants and facilitate harvest, apply 10 days before harvest. DO NOT apply under conditions of extreme heat during the middle of the day.' ●

## Sweet Corn Pheromone Trap Network Report

Marion Zuefle, NYS IPM, 8/27/24

Statewide, 25 sites reporting this week (see [trap count table](#)). European corn borer (ECB)-E was trapped at 7 sites and ECB-Z was trapped at 6 sites. Corn earworm (CEW) was trapped at 22 sites, with 18 sites high enough to be on a 3, 4, 5 or 6-day spray schedule (see [chart](#)). Fall armyworm (FAW) was caught at 7 sites and Western bean cutworm (WBC) was caught at 6 of the reporting sites.

It is important to correctly identify the larval pests in your corn so that management practices can be altered when needed. Below are images of the four larval pests that the Sweet Corn Pheromone Trap Network monitors (ECB-E and Z look identical). To help with identification please also see the [Sweet Corn Larval Pest Identification fact sheet](https://ecommons.cornell.edu/handle/1813/57328) (<https://ecommons.cornell.edu/handle/1813/57328>).



WBC larva in corn. Photo: NYS IPM



CEW larva in corn. Photo: NYS IPM



ECB larva in corn. Photo: NYS IPM



Fall armyworm larva; note the inverted 'Y' on head capsule. Photo: NYS IPM ●

## Northeast SARE Farmer Grant Program Proposals due November 12, 2024

Farmers in the Northeast can apply for up to \$30,000 in funding for sustainable agriculture projects starting in 2025. These projects can range from experiments to on-farm events and demonstrations or other educational activities.

The [Call for 2025 Northeast Sustainable Agriculture Research and Education \(SARE\) Farmer Grant Proposals](https://www.sare.org/wp-content/uploads/Northeast-SARE-Farmer-Grant-Call-for-Proposals.pdf) is now available at <https://www.sare.org/wp-content/uploads/Northeast-SARE-Farmer-Grant-Call-for-Proposals.pdf>. Approximately \$850,000 has been allocated to fund projects. Awards of up to \$30,000 are available. Proposals are due no later than 5:00 p.m. EST on November 12, 2024.

Competitive proposals explore new ideas and techniques or apply known ideas in new ways or with new communities. Reviewers look to fund projects that are well-designed to meet proposed objectives and promise the greatest benefit to farming communities. A wide variety of topics can be funded by Northeast SARE, including marketing and business, crop production, raising livestock, aquaculture, social sustainability, climate-smart agriculture practices, urban and Indigenous agriculture and much more. For guidance on how to design your project, refer to SARE's bulletin, [How to Conduct Research on Your Farm or Ranch](#). To see examples of funded Farmer Grant projects, visit the national SARE project database at [projects.sare.org/search-projects/](https://projects.sare.org/search-projects/).

Q&A Sessions are taking place alternating Tuesdays and Wednesdays in October. Register once to attend any of the sessions. Sessions will take place on: Oct 8, 16, 22, 30. from 12 to 1 EST. To register, visit the Northeast SARE website at: [www.northeastsare.org/FarmerGrant](https://www.northeastsare.org/FarmerGrant)

For questions about this Call for Proposals, please contact Candice Huber at [northeast-fr@sare.org](mailto:northeast-fr@sare.org) or 802-656-7587. ●



# CROP Insights

*Observations from the Field and Research-Based Recommendations*

## CUCURBITS

Multiple viruses affect cucurbits in New York, including Watermelon Mosaic (WMV), Cucumber Mosaic (CMV), Zucchini Yellow Mosaic and Papaya Ringspot. Symptoms of these viruses are difficult to distinguish from each other and produce distorted and stunted foliage (Fig. 1) and color breaking (Fig. 2) or ringspots on fruit (Fig. 3). A lab test can confirm which virus is present, although all four listed here are spread by aphids. Once a virus is inside a plant, treatment is futile, so management focuses on:

- Excluding aphids
- Planting resistant or tolerant varieties
- Eliminate overwintering weeds which can harbor viruses

Row covers are an excellent way to exclude aphids (and Striped Cucumber Beetle). They must be removed at pollination.

*From CU Guidelines:* "Yellow straightneck summer squash varieties such as Multipik, Superpik, General Patton, Fortune, Sunbar, Cougar, Lioness, Precious II, Sunbar, Sunray, and Seneca Supreme and the crookneck variety, Supersett, contain a yellow precocious gene that allows plants to produce marketable yellow fruit in spite of infection with either CMV or WMV."

"Green zucchini varieties with intermediate WMV resistance include Bobcat, Contender, Dividend, Equinox, Payroll, Elegance, Jaguar, Magnum, Noche, Quirnal, Reward, Revenue, and Tigress. Genetically engineered (GE) varieties include Declaration II, Independence II, Judgement III, and Justice III"



Figure 1. Distorted and stunted foliage on a pumpkin. *Photo: J. Reid, CVP*



Figure 2. Color breaking caused by virus on some ornamentals may not interfere with marketability. *Photo: J. Reid, CVP*



Figure 3. There are at least 4 viruses that can affect cucurbits in our region. On Jadestar watermelons, tan ringspots are common. *Photo: J. Reid, CVP*



Figure 4. This strip of buckwheat was sown following an early zucchini planting. Terminating (by mowing) the early crop reduces the presence of virus in the field for later plantings and the buckwheat attracts pollinators and other beneficial insects. *Photo: J. Reid, CVP*

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## ONIONS

All farms began harvesting main season onions in Elba this week (harvest of early transplants started in July). Spray programs are complete and sprout inhibitor has now been applied to the majority of onion fields across the region. Several fields have been rolled (Fig. 5), pulling as begun and will be in full swing after Labor Day. Gently rolling onions lays down those plants that are upright so that their leaf axils are protected from rain. Upright plants that are not putting on new leaves and have soft necks have a gap in their leaf axils where rainwater can pool and enter into the neck tissue where it favors infection and progression of bacterial disease, which can lead to bulb rot (see article in last week's issue of Veg Edge for more info). When you go to pull a lodged onion plant out of the ground and the roots are "letting go" so that it pulls out easily, it is finished putting on size and can be pulled. If the roots are still "holding on" and it requires a tug to pull the plant out of the ground, the bulbs are still sizing up. Onion plants are ready to be pulled when at least 50% of the foliage has dried down. Pulling and harvesting should be avoided when temperatures are > 85°F, especially when the humidity is high, the sunlight is bright and onions are immature as these conditions can cause sunscald and black mold.

**Muck Donut Hour is closed for the season.** Thank you to the growers, crop consultants and researchers who made this 25+ year Elba muck tradition epic!

### Optimum conditions for harvest, curing and storage of dry bulb onions

- Do not harvest onions when temperatures are > 85°F due to risk of sunscald and black mold.
- Do not harvest wet onions.
- Optimum conditions for artificial curing are 68-86°F (3-5 °F above the ambient air temperature) and 70% relative humidity (50% going in, <100% coming out) with airflow of 3 cubic feet per minute per cubic foot of product for at least 12 to 24 h, until neck is sealed.
- Best skin develops at 75-90°F.
- The optimum conditions for long-term storage of onions is 32°F with 65-70% relative humidity.

## PEAS

Autumn is the best time to manage corn chamomile (*Anthesis arvensis*), also known by pea growers as daisies. Reproduction is by seed which germinates in late summer, early autumn, or early spring. Research at Cornell showed that the fall germinating cohort is most problematic because they bloom when the pea crop is in the field. Flower buds of corn chamomile are difficult to separate from shelled peas. None of the herbicides registered on peas will control this species. One option is to apply Harmony Extra SG herbicide as a fallow application in the fall to infested fields. The best application period is when most weeds have emerged and are growing. Read the label for specific application instructions. There is a 45-day rotation restriction before planting peas or other vegetable crops. Wheat and barley growers (not seeded) also have the option of applying 1.5 pt of 2 lb/gal bromoxynil to emerged chamomile in the fall when rosettes are less than 1 inch across. For photos and additional information about chamomile management see [Chamomiles | CALS \(cornell.edu\)](#) – JK

## SWEET CORN

New reports of tar spot continue to come in and it has been officially recorded in 6 WNY counties in 2024: Allegany, Chautauqua, Erie, Livingston, Niagara, and Wyoming.

## TOMATOES

Late blight continues to spread in WNY. It has now been found in Chautauqua County with previous confirmations in Allegany, Cattaraugus, and Monroe Counties. If you suspect you might have late blight, please reach out to Cornell Vegetable Program staff ASAP! It is very important that we continue to track the spread of late blight and determine the strain and which fungicides provide good control. ●



Figure 5. Onions on the left were gently rolled to protect leaf axils from being exposed to rainfall, which could favor infection and progression of bacterial diseases that could lead to bulb rot. Photo: C. Hoepting, CVP



# Planting Dates for Fall or Spring Biofumigation Using Mustard

Emmalea Ernest, Extension Fruit & Vegetable Specialist, University of Delaware; from [Weekly Crop Update, 8/1/24](#)

Biofumigation is a technique for managing soil-borne pathogens. The [biofumigation process](#) involves growing specific cover crops (mustard or sorghum species), then mowing the cover crop and incorporating the green cover crop material into the soil. The chopped cover crop material releases compounds into the soil that kill certain plant pathogens and nematodes. In this region, growers have been interested in using biofumigant mustards for managing Fusarium, *Phytophthora capsici* and root-knot nematodes (RKN). There is ample evidence that mustard biofumigation is effective for reducing RKN. There is some evidence that biofumigation is effective for Fusarium and *P. capsici* control.

The standard recommendation for Delmarva has been to plant biofumigant mustards in the early spring, but the timeline for spring biofumigation does not allow for planting until late May or June. In 2022 and 2023, I measured biomass production in mustard planted in late summer and early fall to determine recommended planting dates for fall mustard biofumigation. In 2023 I also had September and October mustard plantings that overwintered. In 2022 'Caliente Rojo' mustard that was planted on August 8, 15 and 22 produced sufficient biomass to complete the biofumigation process in September or October. A planting made on September 5 did not produce adequate biomass in time for effective biofumigation (Fig. 1). In 2023, plantings of 'Caliente 199' and 'Caliente Rojo' made on August 21 were ready for incorporation in late October. Plantings on September 21 and October 12 overwintered and were ready for incorporation in the early spring of the following year. We had a mild winter and biofumigant mustard may not overwinter in Delaware every year, however this planting timing could have a fit in some situations.

Another constraint on fall biofumigation is soil temperature. Recommendations from other regions suggest that biofumigation is not as effective at soil temperatures below 50°F. In southern Delaware, average daily soil temperature falls below 50°F in mid-November (Fig. 2).

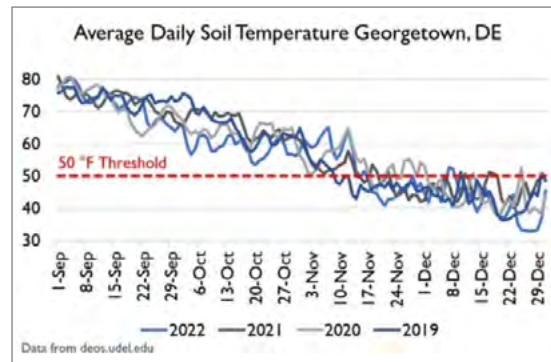


Figure 2. Average daily soil temperatures for September through December at Georgetown, Delaware in 2019-2022.

Based on my experiences in 2022 and 2023, I recommend planting between August 1 and August 22 if you want to biofumigate in the fall. For overwintering, mustard should be planted in late September or early October. Avoid early September planting dates as the plants become too mature to overwinter, but are not ready for incorporation until soils are too cold for effective biofumigation. To promote production of adequate biomass, fertilize with at least 50 lbs/acre of nitrogen. Overwintered plantings will need additional nitrogen in late winter to promote spring growth. Ammonium sulfate is the recommended nitrogen source, since it also supplies sulfur, which the mustard plants need to produce the active compounds necessary for biofumigation. ●

Mustard Planting Date	Biofumigation Timing
<b>2022</b>	
Aug 8	late September
Aug 15	mid October
Aug 22	late October
Sept 5	early December (too late)
<b>2023</b>	
Aug 21	late October
Sept 21	late March (overwintered)
Oct 12	late April (overwintered)



Figure 1. Fall 2022 biofumigant mustard planting on September 26. August 8 planting is at early flowering and ready to mow and incorporate. The September 5 planting on the far left did not produce sufficient biomass in time for effective fall biofumigation. Source: E. Ernest, Univ. of Delaware Cooperative Extension

## Upcoming Events

### Processing Snap Bean and Sweet Corn Variety Trial Field Day

September 4, 2024 (Wednesday) | 2:30 pm start time  
Cornell AgriTech, Research North Farm, 1097 County Rd 4,  
Geneva, NY 14456

View the 2024 Cornell processing snap bean and sweet corn variety trials and network with seed company representatives. Dinner will be available for those that pre-register.

COST: FREE! You must pre-register for dinner by contacting Michael Rosato at [mwr54@cornell.edu](mailto:mwr54@cornell.edu) or phone 315-787-2223.

### Northeast Cover Crop Council Webinar Series

Now - October 23, 2024 | 12:00 - 12:30 Eastern

Weekly FREE webinars will include time for audience questions. Registration is open through the entire webinar series. Qualify for 0.5 CCA CEUs per session attended. More information, session topics, and registration available at [https://northeastcovercrops.com/conferences\\_webinars/](https://northeastcovercrops.com/conferences_webinars/)

### 2024 Dry Bean Growers Twilight Meeting

September 24, 2024 (Tuesday)

SAVE THE DATE! 1.5 DEC credits will be available. More details will be available after Labor Day.

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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.

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