



UMass
Extension

Vegetable Notes

For Vegetable Farmers in Massachusetts since 1975



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We had a great turnout at our twilight meeting yesterday at Elliot Farm in Lakeville MA! In this photo, Kenny Elliot talks about his laser scarecrow.

Photo: H. Whitehead

CROP CONDITIONS

It was great to see so many growers yesterday at our twilight meeting at Elliot Farm! Sue and Hannah from our team talked about using PSNTs to dial in sweet corn fertility, planting sunflowers for pollinators, and the intricacies of high tunnel tomato fertility, and we heard from Kenny Elliot about the laser scarecrows that they use on the farm.

It's been dry this week, and Essex, Norfolk, Bristol, and southeastern Worcester counties are now classified as being in a moderate drought. At an event on climate change adaptation held by CISA last night, Tim Wilcox from Kitchen Garden Farm described their tactic for sustainably running a farm in the new reality of annual droughts or excessive rain every year: be prepared to irrigate all of your crops in the dry years to make up inevitable yield and profit losses from the wet years. There's little that can be done to save crops and bring in high yields in a wet year like the one we had in 2021, so maximize yields and avoid crop losses in dry years.

Summer crops are starting to come in—squash, zucchini, cucumbers, and fresh onions, as well as the first tomatoes from unheated high tunnels—alongside early beets and bounties of salad and cooking greens. Garlic is producing scapes that will be harvested soon.

Next Tuesday, UMass Extension is holding a [Soil Health Demonstration Field Day](#) at the Research Farm in South Deerfield. Come to see demonstrations on various soil health topics: no-till vegetable transplanting into a crimped cover crop, strategies for cover crop termination and residue management, as well as the New York Soil Health Trailer. We hope to see you there!

PEST ALERTS

Cucurbits

[Cucurbit downy mildew](#) (CDM) was reported in southern New Jersey (Salem Co.) on cucumber on June 11, which is 5 days earlier than last

year. CDM is an obligate parasite, meaning it requires a living host to survive. The disease therefore does not overwinter in the Northeast; it overwinters in Florida and moves northward on storm fronts as the summer progresses. Last year, after CDM was reported in NJ on June 16, the disease showed up in MA on July 28 – although spread of the pathogen depends on weather patterns that change every year. The pathogen clade (strain) that infects cucumber also infects cantaloupe. The clade that infects squash, pumpkin, and watermelon typically appears in the region late in the summer. Before symptoms appear, when the downy mildew forecast risk is low ([check the forecast map here](#)), apply protectant fungicides (e.g. chlorothalonil, mancozeb, copper). We are still at minimal risk for disease development in the Northeast; we'll provide alerts here when that risk level changes and protectant fungicides should be applied.

CONTACT US:

Contact the UMass Extension Vegetable Program with your farm-related questions, any time of the year. We always do our best to respond to all inquiries. **Office phone:** (413) 577-3976 *We are currently working remotely but checking these messages daily, so please leave us a message!* **Email:** umassveg@umass.edu

Home Gardeners: Please contact the UMass GreenInfo Help Line with home gardening and homesteading questions, at greeninfo@umext.umass.edu.

Squash bug adults and eggs were seen in low numbers Hampshire Co. last week. Adults overwinter in field edges and emerge in mid-June. Squash bugs inject a toxin into the leaves while feeding, causing plants to wilt. They can also vector a bacterium that causes the disease [yellow vine decline](#). Systemic furrow, drip, or seed treatments and sprays for cucumber beetle at seedling stage will likely also control squash bug. A threshold of 1 egg mass/plant can be used to target adults; wait for egg masses to hatch to target nymphs. Adults can be targeted with broad-spectrum pyrethroids before the crop is flowering. Target nymphs with acetamiprid (e.g. Assail 30 SG), which has lower toxicity to bees than other neonicotinoids. Organic growers can target nymphs with pyrethrin (e.g. PyGanic) and azadirachtin (many product names), or Azera, which is a mix of both. If spraying flowering crops, spray after dusk when pollinators are not visiting flowers.



*Left: Squash bug eggs and nymphs. Photo: UMass Veg
Right: Squash bug adult. Photo: T. Kuhar.*



*Left: Squash vine borer larvae. Photo: J. Boucher.
Right: Squash vine borer adult. Photo: A. Eaton.*

Squash vine borer: A single SVB moth was caught this week at trapping site in New Hampshire. Egg laying can be expected to begin approximately 4 weeks after adults begin to be caught. No moths have been caught so far at the 4 sites in MA with SVB traps. SVB is a moth that lays eggs at the base of cucurbit stems. The larvae bore into and feed within the stem. If the larva is at the base of the plant, the entire plant will be killed; if the larva is further up on the plant, a single vine can be killed. Thick-stemmed cucurbits like pumpkins, zucchini, and some winter squash are hosts to SVB; thin-stemmed crops like watermelon, cucumber, and butternut squash are not hosts. Symptoms of SVB infestation include leaf yellowing and wilt; it can look similar to symptoms of [bacterial wilt](#), a common vascular bacterial disease of cucurbits that is vectored by the [striped cucumber beetle](#). Look for an entry hole in the stem surrounded by lots of sawdust-like frass to distinguish between the two. SVB can be monitored using pheromone traps that catch male moths. Insecticide sprays targeting the base of plants are recommended when trap captures exceed 5/week in bush-type crops or 12/week in vining-type crops.

Solanaceous

Bacterial canker was diagnosed this week in high tunnel tomatoes in Hampden Co. Bacterial canker is one of the most destructive tomato diseases in MA. It commonly arrives on farms via infected seed or transplants, and once it's on a farm, the pathogen can overwinter on trellising and pruning equipment and materials. Bacteria spread throughout the plant, first affecting lower leaves and causing leaf curling, wilting, chlorosis, and marginal leaf scorching. Le-

sions and cankers later develop on stems, and inner stem tissue will become darkened and necrotic. Bacteria can move from plant to plant by splashing water and any handling of the plants (harvesting, pruning, etc). Symptoms can look similar to those of white rot or root rots, so if you suspect bacterial canker in your tomatoes, contact us at umassveg@umass.edu or send in a sample to the [UMass Plant Diagnostic Lab](#). Bactericides can help control the spread of bacterial canker if started early. See the [Outdoor Tomato disease control section of the New England Vegetable Management Guide](#) for labeled materials.



Bacterial canker in tomato. Photos: S.B. Scheufele

Colorado potato beetle larvae are continuing to feed in potato and eggplant. Chemical control of CPB is most effective if it targets small larvae, as large larvae will inflict a lot of feeding damage before they are killed by insecticides. In [potatoes](#), scout 3 plants in a row at 10 locations in a field. After plants are larger than 18” tall, scout 3 stems at each location. Treat if 0.5 adults, 4 small larvae, or 1.5 large larvae are found per plant or per stem. In [eggplant](#), scout 20 plants per field and treat plants <6” tall if 2 small or 1 large larva is found per plant and treat plants taller than 6” if 4 small or 2 large larvae are found per plant. See the insect management section of the [appropriate crop in the New England Vegetable Management Guide](#) for labeled materials. Do not use the same chemical class on successive generations in the same year (e.g. if you plan to use a pyrethroid, group 3A to control this generation of CPB, don’t use a pyrethroid on the next generation).

Sweet corn

Corn earworm (CEW) is being caught in NY, NH, and CT, and the one trap that is set up in MA caught 1 adult in 1 night this week. This is early for CEW arrival in the Northeast, potentially due to northern overwintering sites (usually CEW only overwinters in the southern US and is blown northward on storm fronts) and/or some long-lasting, strong storm fronts that came up from the south several weeks ago. In whorl-stage corn, CEW moths will lay eggs on the leaves, and larvae will feed in the whorl but do not commonly do a lot of damage. Once silking corn is present, moths will lay eggs within the silk and the larvae will feed within the ear tip, causing significant damage. Pyrethroids (IRAC group 3A e.g. Mustang, Brigade, Hero, Warrior, Asana, Pounce, Declare, Delta Gold, Fastac, Baythroid) alone should not be used to control CEW because of resistance. Combine with another material from a different IRAC group (e.g. Lannate or Blackhawk/Radiant). Lannate will also control sap beetles.

European corn borer is continuing to be caught in low numbers at our trapping sites in MA, but high numbers were reported from NH this week. GDDs indicate that we are at peak flight (631 GDDs base 50°F). If trap captures near your farm (see Table 1) indicate that ECB moths are present in your area, scout your corn for caterpillars to determine if a spray is warranted. For instructions on how to scout sweet corn, see page 22 of the [Sweet Corn Insect Management Field Scouting Guide](#). Wait to spray whorl-stage corn until the tassels have emerged, as caterpillars will be protected from sprays when feeding in the whorl.

Location	GDDs* (base 50F)	ECB NY	ECB IA
Western MA			
Deerfield	649	7	-
Hatfield	635	1	3
Whately	672	5	1
Central MA			
Leominster	610	1	1
Eastern MA			
Millis	-	0	0
Sharon	648	0	0
Seekonk	717	3	0
Swansea		5	1
Bolton	615	1	1
- no numbers reported for this trap			
N/A this site does not trap for this pest			
*GDDs are reported from the nearest weather station to the trapping site. Some locations are not near a station and therefore GDDs are not reported.			

Miscellaneous

Basil downy mildew (BDM)

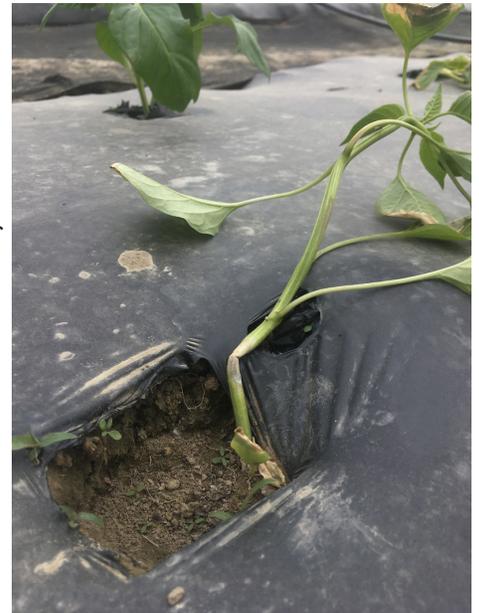
was confirmed this week on Genovese basil at a garden center in Berkshire Co. BDM is host-specific to basil—it is a different pathogen than the downy mildews that affect cucurbits, spinach, and lettuce. The pathogen is an obligate parasite, meaning it requires a living host

to survive, so it does not overwinter in the Northeast and most commonly arrives in the region on transplants that are sourced from southern states. Once in the region, the pathogen spreads on windborne spores. Keep an eye out for early symptoms of the disease: banded yellowing of leaves, followed by fuzzy gray sporulation that develops on the undersides of leaves. Sunburn symptoms can look similar. There are now many different BDM-resistant varieties that can offer several additional weeks of production after the arrival of BDM compared to susceptible varieties. Resistant varieties include Devotion, Obsession, Passion, Thunderstruck, Prospera (several growth forms), Amazel, and Pesto Besto. *In recent years, we have seen breakthrough cases of BDM early in the season on resistant varieties, and we'd like to track which resistant varieties are developing disease. Please report any cases of BDM this season by emailing us at umassveg@umass.edu so we can track this important info and provide up-to-date variety recommendations to you!*

Burnt stems are being reported in transplanted crops on black plastic amidst the hot, dry weather. This occurs either when the stem of a transplant is in contact with black plastic that heats up in the sun, or when hot air from under the black plastic chimneys out of the hole and burns the stem. Make sure that holes in black plastic are large enough that stems are not touching the edge.



*Basil downy mildew on the top (left) and bottom (right) of the leaf.
Photos: Univ. Florida (L), A. Madeiras (R)*



A pepper transplant stem burned by black plastic. Photo: G. Higgins.

POTATO LEAFHOPPER ACTIVE IN POTATO, EGGPLANT, BEANS

Potato leafhopper (PLH) adults have arrived and are now being observed across MA on potatoes, eggplants, and beans. We should soon begin seeing the immature nymph stage crawling side-to-side on the undersides of leaves. Because low numbers of adults or nymphs cause injury and reduce yield, it is important to protect plants before adult numbers are high and before nymphs build up. Left uncontrolled, PLH populations will continue to grow rapidly. Plant injury and yield loss can be significant. In potato, yield loss occurs even before the development of obvious symptoms. Green beans are very susceptible, especially when they are infested prior to flowering.

Identification. Adults are about 1/4-inch long, light yellow-green, and fly up from foliage when it is disturbed or shaken—they look like tiny green sparks flying away from the plants. PLH overwinters in the southern US and the adults move north annually. Once adults arrive, they lay eggs in the veins and petioles of leaves. Nymphs hatch after about 10 days; they are tiny, light green, wedge-shaped and very fast-moving. They like to hang out on the underside of leaves and tend to move sidewise, in a crab-like fashion. Presence of nymphs indicates an established population.

Damage. Adults and nymphs feed by inserting a needle-like beak into the plant and sucking out sap. They also inject a toxin into the plant, blocking conductive tissues and causing yellowing, browning, and curling of leaves. In potato, leaf margins turn brown and brittle first, followed by death of entire leaves, a condition known as 'hopperburn.' In eggplant, leaf margins and tips turn yellow and curl up. Feeding can reduce yield before damage is visible. Damage can be severe on early-season and red varieties of potato, as well as in green beans, eggplant and raspberries. Long-season cultivars tend to be more tolerant. Beans are more susceptible when they are young than at later stages. Field crops such as alfalfa,

clover, soybean, sunflower, and tobacco are also hosts.

Scouting and thresholds. It is difficult to count adults since they fly quickly when foliage is shaken or disturbed. Sweep nets can be used to detect adults. Once nymphs develop, they can also be monitored by visually inspecting lower leaf surfaces on lower-canopy leaves.

- In **potatoes**, treat at a threshold of 1 adult per sweep net (if you see one adult per plant when you shake the foliage, you are in that range) or 15 nymphs per 30 leaves.
- For seedling **beans**, use a threshold of 2 adults per row foot. For beans in the 3rd-leaf to bud stage, use a threshold of 5 adults per row foot or 1 nymph per leaflet.
- In **eggplant**, use a threshold of 1.5 adults or large nymphs per leaf.

Chemical Control

Conventional products. In potato and eggplant, some materials registered for Colorado potato beetle (CPB) adults will also control leafhopper, including neonicotinoid foliar sprays such as Admire Pro or Assail. These and several other carbamate, synthetic pyrethroid, and organophosphate products are also registered for leafhopper in potato, eggplant, and snap beans. Refer to the [New England Vegetable Management Guide](#) for registered products. While the classes of insecticides listed above generally have high toxicity to bees, there are variations within classes; for example, Assail (acetamiprid) has a lower toxicity to bees (rated as ‘medium’) while most neonics are rated as highly toxic to bees. Sivanto (flupyradifurone) is a new product in a novel class of chemistries, the butenolides, that works against sucking pests, including PLH. It is also labeled for CPB control. This new active ingredient is being touted as an alternative to neonicotinoids, and has been given a bee toxicity rating of Low.

Organic products. PyGanic EC5.0 (pyrethrin) has been shown to be the most effective product for reducing leafhopper numbers and damage. Pyrethrin is a contact insecticide, so it must hit the insect to kill it and therefore good coverage is important, especially of the leaf underside where nymphs are found. Pyganic breaks down quickly in sunlight, so the residual period is short. Spraying late in the day or in the evening may provide better control than spraying early in the morning. Products containing azadiractin have also demonstrated efficacy against leafhoppers (especially in fruit systems) and could be used in tank-mixes or in rotation with Pyganic EC5.0. Don’t wait for numbers to build up. Row cover can be used to delay PLH infestation in snap beans until flowering, when plants are less susceptible to damage. Using row cover is recommended on young eggplant, as it protects from flea beetles, CPB and PLH.

Pollinators and other beneficials. Although bees do not forage extensively in beans or potatoes, they may be active in the field when these crops or the weeds within the crop fields are flowering. During that time, selection of products with lower toxicity to bees is advised. Look for toxicity information on the label, and also in the New England Vegetable Management Guide [Table 26](#), and in the products listed for each crop and pest.

For conservation of both native pollinators and honeybees, control weeds in the crop and avoid drift onto flowering borders or crops. However, encouraging some flowering areas in the margins is good for supporting pollinators before and after crops bloom. These can also be a nursery and refuge for beneficial predators and parasites of insect pests.

—UMass Extension Vegetable Program



Above: Potato leafhopper adult. Photo: D. Ferro
Below: Hopperburn damage on beans. Photo: Paradise Hill

CALCIUM DISORDERS IN VEGETABLES AND FRUITS

--Written by Gordon Johnson, Extension Vegetable & Fruit Specialist; gcjohn@udel.edu and Emmalea Ernest, Scientist - Vegetable & Fruit Crops; emmalea@udel.edu. Originally published in the [Delaware Weekly Crop Update, Volume 30, Issue 12](#) on June 10, 2022.

Calcium dominates exchange sites in soils and is rarely deficient in the soil. However, a number of calcium disorders can affect crops, even in well-limed soils, including:

- Blossom end rot in tomatoes, peppers, and eggplants (more info [here](#)) (see photo, next page)
- Blossom end rot in watermelons
- Watercore and glassiness in melons
- Internal leaf tipburn in cabbage
- Leaf tipburn and curd defects in cauliflower
- Internal browning of Brussels sprouts
- Leaf tipburn in spinach
- Leaf tipburn in lettuce (see photo, next page)
- Leaf tipburn and deformity in strawberry
- Internal browning, hollowheart, storage disorders, and poor skin set in potatoes
- Cavity spot in carrots
- Bitter pit, cork spot, cracking, internal brownspot, and water core in apples (see photo, next page)
- Hypocotyl necrosis in beans and other legumes
- Meristem death or distortion of new growth from meristems in many plants (cupped leaves, common in pepper trans-plant production)

Calcium is taken up in quantity from the soil by the plants from the undifferentiated area right behind the root tip. Once in the root, it moves in the xylem (water conducting vessels) and is distributed in the plant. Much of this movement in the xylem occurs by exchange. Calcium is attracted to the xylem wall and must be displaced by another ion (another calcium or other cation). This process is driven by transpiration and subsequent water movement through the xylem. Therefore, calcium movement is relatively slow compared to other nutrients that move easily in the transpiration flow. Calcium is not translocated in the phloem (plant food transport system) so it cannot move from one area of the plant to another.

Calcium has many roles in the plant, from root growth control, to cell membrane function, to stomatal regulation. The main function that leads to the disorders listed above is in the formation of plant structure. Calcium is component of cell walls and the middle lamella, which cements plant cells together. Calcium provides cross linkages in the pectinopolysaccharide matrix and adds to the structural strength of plant tissues. When insufficient calcium is present, plant tissues do not form properly and they may appear deformed and in severe cases may become necrotic – tissues may die or collapse.

Because calcium moves slowly through exchange in the xylem and is dependent upon water flow, disruptions in that flow can lead to localized deficiencies in calcium. Plant organs with low transpiration rates or that are rapidly expanding such as fruits and storage roots often do not receive enough calcium to support that growth. Growing tips and meristematic areas that are rapidly laying down new cells are also at risk for calcium deficiencies when water flow is interrupted. High humidity, drought, flooding (leading to roots shutting down), root injury, compaction, and root diseases can therefore lead to calcium disorders by the reduction of water flow and calcium exchange and movement in the xylem.

Competition from other cations such as magnesium (Mg^{2+}), ammonium (NH_4^+), and potassium (K^+) can also affect calcium (Ca^{2+}) uptake and movement. In low pH soils, aluminum can interfere with calcium uptake and lead to deficiencies.

Control of calcium disorders starts with proper liming. This provides soil calcium and raises the pH to eliminate the effect of aluminum. The most important factors to control calcium disorders are to supply a steady rate of water (through a good irrigation program), limit root damage (such as root pruning by cultivation), provide a rooting area for plant that is free



Some symptoms of calcium deficiency, clockwise from top left: (a) blossom end rot in tomato, (b) bitter pit in apple, (c) tipburn in lettuce, (d) tipburn in cabbage.

Photos (clockwise from top left): E. Sikora, Auburn Univeristy, Bugwood.org; Univ. of GA Plant Pathology, Bugwood.org; G. Holmes, Strawberry Center, Cal Poly San Luis Obispo, Bugwood.org; G. Higgins.

from compaction and waterlogging, and create a healthy soil environment that limits root disease potential. Above ground, planting at a spacing that allows for good air movement around the plant will also help. Control fertilizer programs to limit competition between calcium and other ions (use nitrate forms of nitrogen instead of ammonium forms for example). In addition, choose varieties that are less susceptible to these calcium disorders (varieties with very large or very long fruit are more susceptible to calcium deficiencies).

There have been mixed results with foliar application of calcium and these applications should be considered a supplement to help limit these disorders and not a correction for calcium deficiencies and good soil and water management. As stated before, calcium movement is limited so it will be difficult to get calcium to where it is needed by foliar sprays except when applied to active meristematic tissue. Calcium sprays have been effective in improving quality in crops such as apples. Sidedressed calcium has been shown to have positive effects on root crops such as potatoes, particularly in sandy soils. Calcium nitrate or chelated calcium applied through the drip irrigation system can help alleviate calcium disorders in some drip irrigated vegetables such as tomatoes.

RECOMMENDATIONS FOR MANAGING CUCURBIT POWDERY MILDEW IN 2022

--Recommendations written by Meg McGrath, Plant Pathologist, Cornell Extension, Long Island Horticultural Research and Extension Center, mtm3@cornell.edu. Introduction by G. Higgins, UMass Extension Vegetable Program



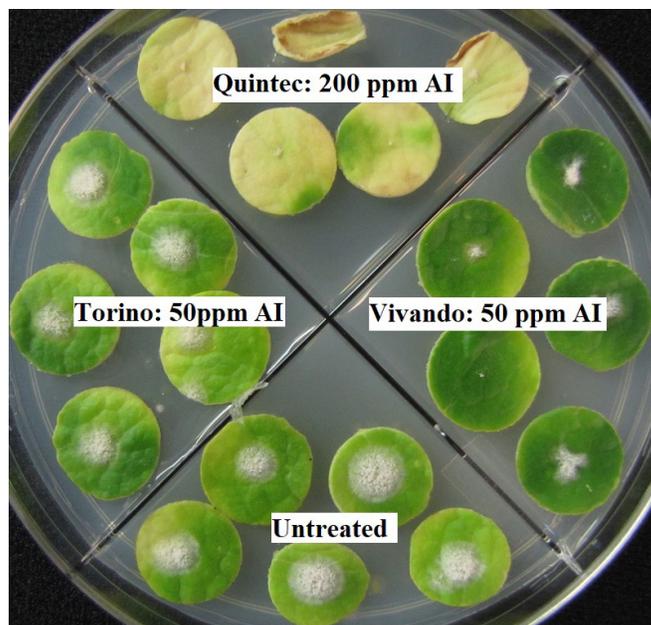
Left: Powdery mildew on the underside of a cucurbit leaf. Right: advanced powdery mildew in a squash field.

Cucurbit powdery mildew is a fungal disease of cucurbit crops that begins developing in New England in mid-summer every year. The fungus produces white powdery growth on the tops and bottoms of cucurbit leaves and severe infections will lead to extensive defoliation. Spores can be windborne for large distances. There is a similarly named cucurbit *downy* mildew, which is a different pathogen; powdery mildew is a true fungus, whereas downy mildew is a fungal-like organism called an oomycete. This distinction is important because not all of the fungicides that control powdery mildew will control downy mildew, and vice versa.

Meg McGrath, plant pathologist with Cornell Extension, based at the Long Island Horticultural Research and Extension Center (LIHREC), conducts annual bioassays for both cucurbit powdery and downy mildews, to assess resistance development in the pathogens and provide current fungicide recommendations. Below is a summary of her powdery mildew recommendations for 2022. We'll publish her updated *downy* mildew recommendations ([also available here](#)) in an upcoming issue of Veg Notes.

Recommendations for managing cucurbit powdery mildew in 2022:

1. **Select resistant varieties.** [Tables of resistant varieties are available here.](#)
2. **Inspect crops routinely for symptoms beginning at the start of fruit development.** The action threshold for starting applications is one leaf with symptoms out of 50 older leaves examined. Examine both surfaces of leaves. Starting treatment after this point will compromise control and promotes resistance development. Powdery mildew usually begins to develop around the start of fruit production. Contact conventional fungicides and biopesticides applied before detection may slow initial development. Contact fungicides for powdery mildew include sulfur, chlorothalonil, and horticultural



An example of the fungicide bioassays run by Meg McGrath. Leaf disks are treated with different fungicides and then inoculated with isolates of cucurbit powdery mildew. The isolate being tested in this photo was able to grow normally on the untreated leaves and the leaves treated with Torino but was suppressed partially on the leaves treated with Vivando and suppressed completely by Quintec. This means that this isolate of PM is resistant to Torino and Vivando.

tural oils. Copper is another, slightly less effective option. Biopesticides are also a good choice.

- 3. When powdery mildew is present, apply targeted fungicides weekly with contact fungicides** and alternate amongst available chemistry based on FRAC Group code. It is prudent to decide now what products to use each week to have a plan in place ready to implement. Use highest label rates to control moderately resistant isolates if present.

Vivando (FRAC U8) can be applied up to 3 times with no more than 2 sequential applications. It is a good choice for the last application considering the long residual activity observed in the 2018 fungicide evaluation; it is also recommended used at other times during the season.

DMI fungicides (FRAC 3) are also a good choice in the program, in particular for the first application. Proline is the most effective. It is also labeled for *Fusarium*. Crop limit is 2 applications. Procure is also very effective. It can be applied 3 times; 4 times to direct-seeded crops when the intermediate rate is used.

Gatten (FRAC U13) is the newest fungicide; it was introduced in 2018. REI is 12 hr. PHI is 0 days. It can be applied 5 times. Activity is limited to powdery mildew. It was as effective as Vivando for managing powdery mildew on lower leaf surfaces in a fungicide evaluation conducted at LIHREC in 2019 but not in 2018.

Quintec, Torino, Endura, and QoI fungicides are not recommended.

Example recommended alternations of targeted fungicides:

- 6 applications: Proline, Vivando, Proline, Vivando, Procure, Vivando
- 6 applications: Procure, Vivando, Procure, Vivando, Procure, Vivando 6 applications: Proline, Proline, Vivando, Vivando, Procure, Vivando
- 8 applications: Proline, Procure, Vivando, Proline, Procure, Vivando, Procure, Vivando

- 4. Assess control achieved** on the underside of leaves toward the end of the season when there is still a good canopy.

[Click here for more information about this and previous powdery mildew research.](#)

[Click here for more information about managing cucurbit powdery mildew.](#)

Acknowledgments: Project partly supported by the Friends of Long Island Horticulture Grant Program. Please Note: The specific directions on fungicide labels must be adhered to -- they supersede these recommendations, if there is a conflict. Check labels for use restrictions. Any reference to commercial products, trade or brand names is for information only; no endorsement is intended.

NEWS

2022-23 SMALL FRUIT MANAGEMENT GUIDE - NOW AVAILABLE!

The newly updated New England Small Fruit Management Guide is now available – both online AND in hard copy. This resource is the result of a collaboration between Cooperative Extension systems of all the New England states, and is a valuable resource for any small fruit grower - strawberry, blueberry, raspberry, ribes, and grapes are covered in the guide. Hard copies cost \$20 each, plus \$5 shipping if we need to mail it to you. To purchase a hard copy, please contact Becky Sideman (becky.sideman@unh.edu, 603-862-3203).

SOME PESTICIDES CONTAINING NEONICOTINOIDS TO BECOME RESTRICTED USE IN MA AS OF JULY 1, 2022

On July 1, pesticides containing neonicotinoids that are labeled for turf, trees, shrubs, golf courses, and ornamentals will become state restricted use in Massachusetts. This includes any product that has the above use patterns on the label, even if the product is also labeled for vegetable or fruit use. Products containing neonicotinoids that are labeled for agricultural use only (aka labeled for use on food crops only) will remain general use. You do not need a pesticide license in order to apply general use products, but you do need a license to apply restricted use products. As of July 1, in order to apply these newly restricted use products, you will have to have a Commercial Certification Pesticide License. You can also apply these materials without a license if you are working under the direct supervision of someone with a Commercial Certification.

[Click here for a complete list of products that will become restricted use as of July 1.](#)

[Click here to begin the process of obtaining a pesticide license.](#) (A helpful guide to the ePLACE Portal is available [here](#)). The [UMass Pesticide Education Program](#) provides education around pesticide safety and classes to prepare individuals for pesticide license exams.

UMASS EXTENSION HIRING URBAN AGRICULTURE EXTENSION EDUCATOR - EXTENDED DEADLINE!

UMass Extension is excited to add some dedicated capacity in the important and growing area of Urban Agriculture with the hire of an Extension Educator to be based at the Mt. Ida campus in Newton, MA. We hope to develop a great pool of candidates who are capable of integrating well with others in Extension while developing and maintaining strong relationships with urban agriculture practitioners and organizations in Greater Boston and beyond. The position was posted without a closing date and will remain open until filled, but we encourage potential candidates to complete their application **by July 5 in order to be considered in the first applicant review round.**

[Click here for more details about the position and to apply.](#)

EVENTS

URI ONE-CUT LETTUCE VARIETY TRIAL - PLAN YOUR VISIT!

When: Anytime between **9 am and 8 pm, June 14-20.** Call/text 401-207-4090 or email Rebecca Nelson Brown at brownreb@uri.edu to schedule.

Where: University of Rhode Island Research Farm, 7 Thirty-acre Pond Rd., Kingston RI

Do you grow lettuce? Have you ever wished you could see all the one-cut varieties side-by-side in the field? Now is your chance! You are invited to come evaluate the late spring planting of the URI One-cut Lettuce Variety Trial (21 varieties of one-cut lettuce!). Rather than a single group event, you are invited to come to the farm anytime between 9 am and 8 pm June 14 – 20. Call/text 401-207-4090 or email Rebecca Nelson Brown at brownreb@uri.edu so that she knows that you are coming.

SOIL HEALTH DEMOS AT THE UMASS RESEARCH FARM

When: Tuesday, June 21, 2022, 1-4:30pm

Where: UMass Crop & Livestock Research & Education Farm, 89 River Rd., South Deerfield, MA

Registration: Event is free, but registration is required. Register [here](#).

Demonstrations will include:

- New York Soil Health Trailer demonstration
- No-till transplanting vegetables into a crimped cover crop
- Cover crop residue management
- Strategies for terminating cover crops: roller crimper, use of tarps, mowing

TWILIGHT MEETING AT HARVEST FARM

When: Wednesday, August 24, 2022, 4-6pm

Where: Harvest Farm, 125 Long Plain Rd., South Deerfield, MA 01373

Join us at Harvest Farm in Whately/South Deerfield for a twilight meeting covering several post-harvest topics, including the vacuum cooler Harvest Farm recently purchased with a MA Food Security Infrastructure Grant. More information coming soon!

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