



VEGEEdge

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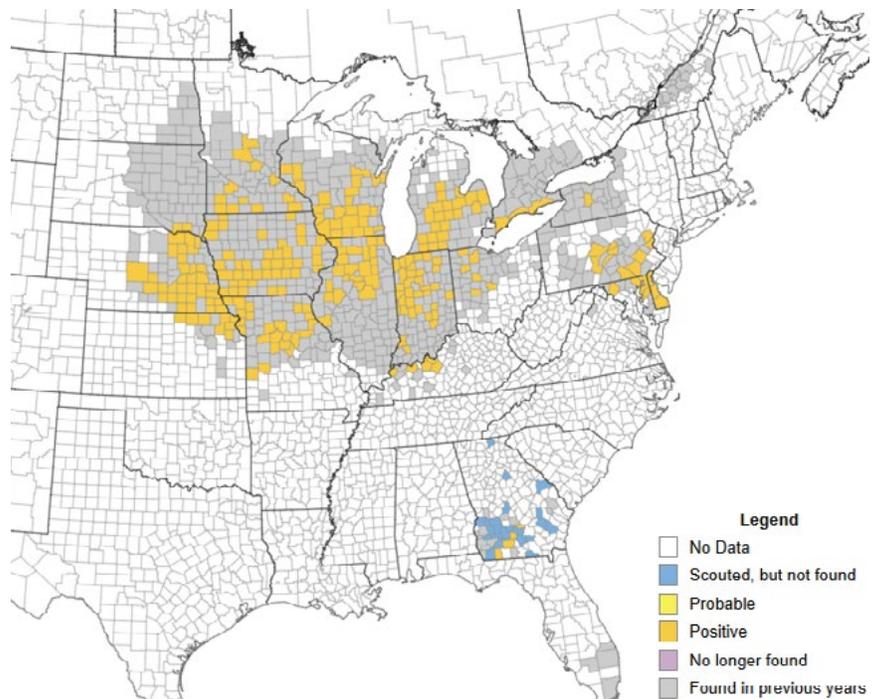
Tar Spot of Sweet Corn: Time to Scout

Julie Kikkert, CCE Cornell Vegetable Program, and Jaclyn Eller and Sarah Pethybridge, Cornell AgriTech

Sweet corn growers and crop consultants are advised to be on the look out for tar spot, already reported this season in several US states and Canada. Since the first report of tar spot in the US 10 years ago, spread is tracked and reported at <https://corn.ipmpipe.org/tar-spot/>. In 2024, tar spot was detected in 23 counties across western, central, and northern New York.

Disease Development

The fungus that causes tar spot, *Phyllachora maydis*, overwinters in infested corn residue. There are no alternative hosts and the fungus can only infect field or sweet corn. Infections and disease spread are promoted by mild to moderate temperatures (59 to 70°F), high humidity (>85%) and when leaves are wet to touch for at least 7 hours. The spores of the fungus that initiate new infections are contained within the tar spots of the fungus and are dispersed by wind-driven rain and storms.



The distribution of tar spot in field and sweet corn by state and county to date in 2025. From Corn ipMPIPE

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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: cvc.cce.cornell.edu

Contributing Writers

- Elizabeth Buck
- Robert Hadad
- Christy Hoeping
- Margie Lund
- Julie Kikkert
- Lori Koenick
- Judson Reid

Publishing Specialist/Distribution/Sponsors

Angela Ochterski

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Information provided is general and educational in nature. Employees and staff of the Cornell Vegetable Program, Cornell Cooperative Extension, and Cornell University do not endorse or recommend any specific product or service.

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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 or write to us at Cornell Vegetable Program, 480 N Main St, Canandaigua, NY 14424.



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The next issue of VegEdge will be produced in two weeks on August 27, 2025.

Symptoms

Symptoms of tar spot are small, raised black spots with dark borders and a 'tarry' appearance that may be present on the leaves (Fig. 1), leaf sheaths, and husks. As the spots become older, they may develop a 'fisheye' appearance. The tar spots are fungal structures called stromata which contain spores that are responsible for pathogen dispersal. Tar spots usually first appear in the lower canopy and as disease severity increases symptoms spread to the upper canopy and are associated with premature leaf death.

Scouting

Tar spot can be challenging to find when scouting if the disease incidence is low. Tar spot lesions can also be easily confused with insect frass or other diseases such as some rust pustules. Tar spot lesions cannot be rubbed off the leaf with your fingers. The lesions are also raised from the leaf surface and go through the leaf so they are visible on both sides. Use this key to determine if the symptoms are likely to be tar spot (Fig. 2). Please contact your local Cornell Cooperative Extension sweet corn or field corn specialist or a diagnostic clinic for assistance with symptom identification.

Economic Significance

The losses caused by tar spot in sweet corn have varied across regions and between years. Tar spot symptoms primarily appear on leaves causing reductions in photosynthetic area. The disease can also affect the size, shape, and uniformity of the corn ears. For processing sweet corn, recovery of kernels may also be reduced. Tar spot lesions on the husks may make them unsuitable for fresh market sales or incur extra labor costs due to the need to dehusk prior to sale.

Management

Tar spot is managed by crop rotation, incorporation of crop residue, cultivar selection, and fungicides if needed. We have initiated variety trials and a fungicide trial this year and will be reporting results in winter articles and workshops. ●



Figure 1. Tar spot on a corn leaf. Note the irregular raised black lesions. Photo: Cornell

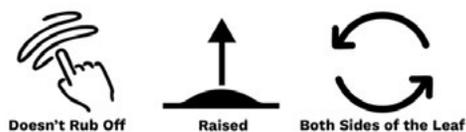


Figure 2. Three key factors for identifying tar spot of sweet corn in the field. Graphic: Cornell

Ideal Conditions for Applying Sprout Inhibitor to Storage Bound Onions

Christy Hoepfing, Cornell Cooperative Extension, Cornell Vegetable Program

Maleic hydrazide (MH) is a growth regulator applied to storage bound onions to prevent sprouting. Ideal conditions include:

- 50% tops down, plants have 5-8 green leaves to ensure adequate translocation into the bulb.
 - If MH is applied too late or when onions have been ravaged by disease or thrips when the plant has **less than 3 green leaves**, it will not be properly absorbed and the onions will start sprouting in storage.
 - If MH is applied to onion that is still **producing new leaves**, cell division will be stopped but individual cells will continue to grow in size. This will produce spongy bulbs where the scales pull away from each other that may no store well.
- Humid weather and temperatures less than 75°F are ideal.
 - **Low humidity (< 50%) and high temperatures (i.e. >80-85°F)** may cause MH to crystallize on the leaves, thereby inhibiting uptake.
- **No rain within 24 hours after application**, as this reduces uptake.
- **Do not tank mix with sodium hypochlorite**, a sanitizer treatment for bacterial diseases, as this tank mix can cause a severe chemical reaction.



Onions are lodging. Photo: C. Hoepfing, CCE ●

Reminder and Update about NYS Farm Employer Overtime Tax Credit Advance Payment

Liz Higgins, Cornell Cooperative Extension, Eastern NY Commercial Horticulture Program

The Farm Employer Overtime Credit is a refundable tax credit available for farm employers who pay overtime wages, based on the phase-in of an overtime threshold in New York State.

Instead of waiting to receive the full payment when they file their annual income taxes, farm employers may apply to the New York State Department of Agriculture and Markets for a certificate of advance payment for eligible overtime paid between January 1 and July 31 each year. This certificate allows them to then apply to the NYS Department of Taxation and Finance for an advance on their tax credit, rather than waiting until they file their taxes at the end of the year.

Applying for an overtime credit advance is optional. Farm employers may instead choose to claim eligible overtime paid for the entire year when filing their tax return at year-end. **Farms can apply for an advance certificate from AGM beginning August 1, 2025. The deadline to apply is September 30, 2025.**

NYS Ag and Markets is strongly encouraging eligible farms interested in applying for the overtime advance certificate, which will allow them to request the payment from NYS Department of Taxation and Finance, to take the following steps now:

1. Visit the AGM website agriculture.ny.gov/farming/farm-employer-overtime-credit-advance to become familiar with the requirements, process, and deadlines, as well as to check for updates.
2. Register your farm (and/or a representative to file on your behalf, if desired).
3. Submit any questions to FarmOTAdvance@agriculture.ny.gov.

Are you Eligible for the Tax Credit?

Eligible farmer: a taxpayer whose federal gross income from farming for the tax year is at least 2/3 of excess federal gross income.

Excess federal gross income: the amount of federal gross income from all sources for the taxable year in excess of thirty thousand dollars.

Example: Jo the farmer earned \$150,000 in gross income in 2025. She earned \$95,000 from farming and \$55,000 as a part-time nurse at the local hospital. Her excess gross income = \$150,000-\$30,000 = \$120,000. 2/3 of \$120,000 = \$80,000. \$95,000 is greater than \$80,000 so Jo is an eligible farmer.

Eligible farm employee: an individual who meets the definition of a farm laborer under [labor law § 2](#), who is employed by a farm employer in New York State. A general executive officer of the farm employer is not an eligible farm employee.

(Labor Law § 2) "Farm laborer" shall mean any individual who works on a farm and is an employee under article nineteen of this chapter. Members of an employer's immediate family who are related to the third degree of consanguinity or affinity shall not be considered to be employed on a farm if they work on a farm out of familial obligations and are not paid wages, or other compensation based on their hours or days of work.

(Article 19) "Employee" includes any individual employed or permitted to work by an employer in any occupation, but shall not include any individual who is employed or permitted to work: (b) in a bona fide executive, administrative, or professional capacity; (e) as a volunteer, learner or apprentice by a corporation, unincorporated association, community chest, fund or foundation organized and operated exclusively for religious, charitable or educational purposes, no part of the net earnings of which inures to the benefit of any private shareholder or individual; (g) in or for such a religious or charitable institution, which work is incidental to or in return for charitable aid conferred upon such individual and not under any express contract of hire; (h) in or for such a religious, educational or charitable institution if such individual is a student; (i) in or for such a religious, educational or charitable institution if the earning capacity of such individual is impaired by age or by physical or mental deficiency or injury.

Eligible overtime: is the total number of hours an eligible farm employee works in a week that exceeds the overtime work threshold, not including hours in excess of 60 hours in a calendar week. The overtime work thresholds are listed below.

Starting on	Hours in excess of	And no more than
01/01/24	56 hours	60 hours
01/01/26	52 hours	60 hours
01/01/28	48 hours	60 hours
01/01/30	44 hours	60 hours
01/01/32	40 hours	60 hours

Prepare to Apply

1. If you don't already have one, you will first need to set up a [My NY.gov ID account](#).
2. Collect and organize key employee information. Farms will need to provide the following information for each eligible employee: full name, social security number or taxpayer identification number, total eligible overtime hours worked, employee overtime hourly rate, and employee regular/base rate. [This is a link to the employee payroll information template](#) (clicking this link will download an Excel file), to organize your payroll information.

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Submit an Application to NYS Ag and Markets for a Certificate

Farm employers that used a Professional Employer Organization (PEO) and wish to apply for a 2024 and/or 2025 credit certificate will be required to provide the following via the AGM online application system: the name of the PEO business; the first and last name of the primary contact person for the PEO; a phone number and email address for the PEO primary contact; and documentation that verifies the financial relationship between the farm and the PEO (e.g., service agreement, contract, etc.).

Farm employers, regardless of whether they used a PEO or not, will **not** be required to attach payroll documentation/records when applying for an advance certificate. (Note: Employers should continue to maintain all necessary payroll records and associated documentation should there be any questions from the Department of Taxation and Finance (DTF) or AGM.)

How to Get Your Advance Payment (once you have received your certificate)

After the NYS Department of Agriculture has reviewed your submitted application for a certificate of advance payment you will receive an email from the Department with a determination of eligibility. Eligible farms will receive an advance payment certificate that includes the amount of the credit, a unique certificate number and the names of the owners, partners, members or shareholders with corresponding credit amounts for each (if applicable). The farm employer is responsible for sharing the certificate with all parties so they can each request their credit advance payment from the NYS Department of Taxation and Finance. The deadline to submit your application to NYS Ag and Markets for advance payment certification is September 30! If you miss this date, you will just file for the full amount of the credit with your annual income taxes.

In order to receive the advance payment, each individual must apply the New York State Department of Taxation and Finance Online Services. Credit advance payment requests must be made to the Department of Taxation and Finance no later than November 1. If you miss this deadline, you will just file for the full amount of the credit with your year-end taxes. ●

IPM for Weeds?

Bryan Brown, Cornell IPM

We don't use spray thresholds for weeds like we do with other pests (since we know the weeds will keep coming and we know what happens if they set seed), but many aspects of Integrated Pest Management (IPM) can still help us with weeds.

Prevention

"An ounce of prevention is worth a pound of cure," the old saying goes. This is especially true for preventing weeds from producing seeds. In my past experiments, fields with weeds that went to seed the year before had ten times the number of weeds emerging as neighboring fields!

Except for dandelions, thistles, and horseweed, most agricultural weeds have round seeds that drop to the ground below where they grew. And contrary to popular belief, many species have seeds that don't live longer than a few years in the soil – so the number of weeds in your soil is mostly determined by the past few years' management. In this way, good weed control leads to even better control, whereas bad weed control becomes even worse.

Mulches, PRE herbicides, and extra bed preparation passes are also preventative. It's a numbers game. Even if you only kill 5 out of 10 weeds ahead of time, that makes your post-emergence weed control efforts that much more effective.

But for August, it's all about minimizing weed seed production. If you have weeds that escaped earlier controls and are just starting to flower, cutting the tops or applying a fast-acting contact herbicide can reduce seed production. If they have already set seed, it can make economic sense to remove these from the field by hand.

Accurate Identification

Every weed species has different susceptibilities to herbicides, tillage, flame, electricity - you name it! So, it's important to identify them accurately. Smartphone apps have come a long way (I use the free app, PictureThis), but it's best to verify with other sources like Cornell's recently updated weed ID website, or the book *Weeds of the Northeast*, which now boasts an expanded second edition.

Accurate ID lets you target the **Achilles heel** of each species. For example, common purslane is shade intolerant; common ragweed won't emerge after June 1; horseweed/marestail has tiny seeds that can't emerge through much soil or mulch; seeds of giant foxtail are eaten if left on the soil surface in the fall; hairy galinsoga seed has no dormancy, so a short bare fallow gets much of it to germinate; velvetleaf needs a long season to set seed; pigweeds and crabgrasses have relatively short-lived seed; winter annuals tend not to compete with our summer crops; biennials and perennials tend to go away with more frequent soil disturbance, or can be targeted in late summer/fall with systemic herbicides that translocate to the roots.

Much of this information was pulled from the free SARE publication [Manage Weeds on Your Farm](#). There is also a useful online database of which herbicide active ingredients are effective on which weeds available through Michigan State University. Follow the QR code; be sure to check what is labeled for use in NY.



QR code for direct access to the MSU herbicide database: <http://herbicides.hrt.msu.edu>

Scouting

Before an herbicide application or cultivation, you're looking at which species are present and their size. After the fact, you're looking at how well weeds were controlled and assessing next steps. Were there environmental, application, or tank mix problems that need to be addressed? If none of these were an issue, and you have

one species surviving that shouldn't be, it may have developed some degree of resistance. The earlier you realize this issue, the earlier you can contact us, and the more likely you'll be able to regain control and prevent it from taking hold of your farm.

It's also beneficial to scout at harvest to map out which weeds went to seed so that you can be prepared for these the following year. Or which perennials remained uncontrolled and may require additional management after harvest. There are many scouting apps for this purpose, but paper and pencil also still work well!

Disclaimer: *Changes in pesticide registrations occur constantly and human errors are possible. Read the label before applying any pesticide. The label is the law. No endorsement of companies is made or implied.* ●

FAQs Regarding Greenhouse/High Tunnel Pesticide Applications on Vegetables

Eastern NY Commercial Horticulture Program

Can I apply this pesticide in the greenhouse or high tunnel?

The pesticide label is law. Label language will indicate whether a certain pesticide application is allowed in a greenhouse. **A label must give specific greenhouse use instructions to be applied in a high tunnel or greenhouse.** Very often, greenhouse applications are only allowed on certain crops or crop stages. Some labels contain different rates and recommendations for the same crop inside and outside of a greenhouse. In New York State, the Department of Environmental Conservation (DEC) has determined that when the label is silent on greenhouse use, it may **NOT** be used in the greenhouse. This applies to OMRI approved pesticides used in organic production as well as conventional pesticides.

Do 25(b) Minimum Risk "Exempt" products fall under this rule?

Chemical products containing active and inert ingredients considered minimum risk are registered under Section 25(b) of FIFRA (Federal Insecticide, Fungicide Rodenticide Act). They are not required to have an EPA registration number and are exempt from EPA regulations on efficacy and toxicity. The exemption from Federal registration is allowed only if the manufacturer uses approved active and inert ingredients, and follows EPA labeling guidelines. Currently, there are 31 approved active ingredients with pesticide claims on the Section 25(b) list and nearly all of them are natural products, for example: Thyme Oil, Garlic Oil, Citronella Oil, Citric Acid. for more information see: <https://www.epa.gov/minimum-risk-pesticides/minimum-risk-pesticide-definition-and-product-confirmation>. Technically, labels on "exempt" products do not have to contain language for greenhouse use to be used as such. However, it would be prudent to proceed with an abundance of caution if you decide to go ahead and use it on a crop in the greenhouse or tunnel. You may have used some of these products already on your field grown crops but keep in mind that conditions in the greenhouse (higher temps and humidity, less air flow) can exacerbate plant injury and may impact people working in these structures differently than in the field.

Is a high tunnel or hoop house considered a greenhouse?

In New York, the DEC defers to the Worker Protection Standard (WPS) for its definition of a greenhouse. The most recent update to the WPS has termed it "enclosed space production," and defines it as "production of an agricultural plant indoors or in a structure or space that is covered in whole or in part by any nonporous covering and that is large enough to permit a person to enter". So, if a pesticide label does not allow its use in an "enclosed space production" area or in the case of New York is silent on greenhouse use, then you cannot use it in a poly film hoop house even when the sidewalls are rolled up and end walls are open.

Does the Worker Protection Standard (WPS) apply when organic pesticides are used?

If you use a pesticide product registered by the EPA in the production of organic agricultural plants, the WPS probably applies to you. Natural products like sulfur, Bt, and copper sulfate are considered pesticides by the EPA. Some protective requirements for workers and handlers (personal protective equipment, restricted entry intervals, etc.) are clearly identified on the pesticide label. However, many of the requirements are only referenced on the label by citing the WPS rule (40 CFR 170). If you are using a pesticide product with labeling that refers to the WPS and you are using it on an agricultural establishment directly related to the production of an agricultural plant, you must comply with the WPS. Otherwise, you will be in violation of federal law, as it is illegal to use a pesticide product inconsistent with its labeling. For more information see: <https://www.epa.gov/pesticide-worker-safety/agricultural-worker-protection-standard-wps>

Which pesticides can be used in vegetables in the greenhouse/high tunnel?*

Some INSECTICIDES labeled for use in Greenhouse/High Tunnel in NY:

Admire-Pro (imidacloprid). Aphids/whitefly: tomato and cucumber.

Azera (pyrethrins+ neem). Multiple modes of action. **OMRI.** (OMRI means pesticide is approved for organic use)

Agree/DiPel (*Bacillus thuringiensis*). Caterpillars. **OMRI.**

Agri-Mek (abamectin). Only tomatoes for mites and thrips.

Beleaf (flonicamid). Aphids, whitefly: only cucumber.

Bug-N-Sluggo (iron phosphate and spinosad bait product). Sowbugs and pillbugs. **OMRI**.

Entrust Naturalyte (spinosad). Leafy brassicas, fruiting vegetables but not transplants, cucurbits, herbs. **OMRI**.

JMS Stylet Oil (paraffinic oil). Veg crops: mites, whiteflies, also some diseases i.e. powdery mildew. **OMRI**.

M-Pede (soap). Many crops, many pests. **OMRI**.

TetraSan (etoxazol). Spidermites: only tomato.

PyGanic (pyrethrins). Labeled on many crops and pests. pH must be buffered to 5.5-7.0. **OMRI**.

Some FUNGICIDES labeled for use in Greenhouse /High Tunnel in NY:

Badge X2 (copper oxychloride, copper hydroxide). Veg crops, bacterial and fungal leaf spots. **OMRI**.

Double Nickel LC (*Bacillus amyloliquefaciens* D747). Many veg crops including tomato, various leaf spots. **OMRI**.

Milstop (potassium bicarbonate). Many veg crops: powdery mildew. **OMRI**.

Regalia CG (extract of Knotweed). Fruiting vegetables, foliar disease and damping-off. **OMRI**.

Scala (pyrimethanil). Gray mold (botrytis): only tomato.

Stargus (*Bacillus amyloliquefaciens* F227). Many veg crops including tomato for gray mold, and soil-borne diseases like Verticillium. **OMRI**.

Serenade ASO (QST 713 *Bacillus subtilis*). Veg crops including tomato, foliar disease, gray mold, bacterial pathogens, and soil-borne diseases i.e. Verticillium. **OMRI**.

*Always read the label carefully before mixing and using pesticides. Be sure the pest, and crop is on the label. You can view NYS DEC registered pesticide labels online by going to <http://www.dec.ny.gov/nyspad/>. You can also ask the DEC Regional pesticide bureau to help you understand if something can be used in a greenhouse, as well as any other questions or clarifications regarding label language or pesticide use questions.

The information and recommendations presented here were updated 1/30/2020 and contain the best available knowledge at the time of printing. Any reference to commercial products, trade or brand names is for information only, and no endorsement or approval is intended. The Cooperative Extension System does not guarantee or warrant the standard of any product referenced or imply approval of the product to the exclusion of others which may be available. All agrochemicals/pesticides listed are registered for suggested uses in accordance with federal laws and regulations as of the date of printing. State regulations may vary. **If the information does not agree with the current labeling, follow the label instructions.** The label is the law. ●

Management Practices for Urban Soil Health: Cover Cropping in Raised Beds

Lori Koenick, CCE Cornell Vegetable Program, and Sam Anderson, CCE Harvest NY

We are exploring management practices for vegetable farmers with high organic matter soils. These soils are usually found in urban growing areas as urban farmers typically grow in imported soil mixtures that have been constructed over time and in high tunnels where leaching events are limited. In both cases, we see that soil pH and calcium levels can increase due to alkaline irrigation water and with grower inputs such as high levels of compost and/or fertilizer. We commonly see limited plant nutrient uptake due to high soil pH. We have produced [five "Management Practices for Urban Soil Health" case studies](#) sharing project updates in our urban cover crop, pH adjustment, and bulk density adjustment work. In each case study, we are looking at the effect of the management practice on soil and crop health.

==> Newly released: [Case Study: Cover Cropping in Raised Beds](#)

In this case study, we discuss findings from a cover crop demonstration trial on a New York City urban farm assessing mowing and tarping termination method and cover crop effects on soil health. At this farm, farmers were interested in using cover crops to improve soil structure, finding a time and cost-effective cover crop termination strategy, and exploring the possibility of grass cover crops to serve as a mulch after termination. Key takeaways from this trial include mowing and tarping can be a labor and cost-efficient way to terminate cover crops in small-scale cropping systems. By leaving "chopped-and-dropped" cover crop residue in place and by tarping rather than tilling to terminate the crop, we can increase soil's ability to form aggregates and retain moisture. Residue from grass cover crops (such as rye or oats) can serve as a straw mulch for the following crop. ●



CROP Insights

Observations from the Field and Research-Based Recommendations

GENERAL

Dry Weather and Residual Herbicides, from Lynn Sosnoskie, Cornell:

Soil moisture matters: Dry surface soils at application need more rainfall for activation than moist soils. So, even if you did get rain, it may still not be enough for proper incorporation.

Use of higher labeled rates (if crop safety won't be compromised) may help reduce variability from limited rain or soil moisture. But dry soils will see less microbial activity, so carryover may be a concern the following season.

No rain after application and weeds are getting up? Use a rotary hoe or harrow to control weeds before they emerge (white root stage). If mechanical control isn't possible, begin scouting to time postemergence applications.

Pay attention to post-activation weather: Even after receiving sufficient rainfall, prolonged dry conditions can reduce control as herbicides bind to soil particles.

Herbicides less tightly bound to soil colloids may give more consistent results in dry years. Always pay attention to rotation restrictions and remember the previous point about carryover.

BEETS

Beets have not been sizing up as well as desired because of the dry weather. Some rain showers are moving across parts of the region Tuesday/Wednesday this week. Rain and/or overhead irrigation can spread spores of Cercospora leaf spot. The disease is doing well in our research trials (irrigated). Powdery mildew (PM) in beets is sometimes observed in our area during dry weather. Be on the lookout for powdery spores on the upper and lower surfaces of the leaf as well as the petioles (leaf stalk). PM is sporadic in our area. Spores are wind-blown and may travel here from other regions. Quadris or sulfur are the products of choice if you are targeting PM. – JK

CANTALOUPE

The challenging growing season for vine crops continues, with several diseases manifesting in cantaloupes this week. *Alternaria* is a group of fungal pathogens more commonly recognized in tomato, with the disease Early Blight. The species *Alternaria cucumerina* causes leaf blight in all cucurbits, especially netted melons. Initial symptoms are faint yellow, circular spots on the upper leaf surface. These eventually develop into target spots, with yellow margins and the canopy may blight out entirely leaving fruit exposed to the sun, which will interfere with ripening (Fig. 1). Cultural controls to reduce *Alternaria* blight include a minimum of a two-year rotation away from all cucurbits. As most cantaloupe growers have multiple planting and harvest dates, we remind growers to mow-off earlier plantings that are no longer being harvested, as these can be sources of *Alternaria* spores for later plantings. As nights become cooler, and dews heavier, *Alternaria* blight will increase.

The next disease of the week for cantaloupes is Powdery Mildew. This disease is well known in zucchini and pumpkins, and less common in the commercial varieties of cantaloupes, as there has been breeding for disease resistance. Symptoms are similar: white circular sporulation on upper and lower leaf surfaces (Fig. 2). As canopy declines, fruit quality is compromised. Powdery Mildew of cucurbits has many races, and disease resistance in the crop may not include all races that arrive in New York in a given season. Further, some growers choose heirloom or open pollinated varieties that do not have as much resistance. We note here that Cornell plant breeder Michael Mazourek has developed the variety Trifecta, which has performed well for yield and flavor, with both Powdery and Downy mildew resistance.



Figure 1. *Alternaria* blight in cantaloupe. Faint yellow, circular spots on the upper leaf surface. These eventually develop into target spots, with yellow margins and the canopy may blight out entirely leaving fruit exposed to the sun, which will interfere with ripening. Photo: J. Reid, CCE



Figure 2. Powdery Mildew produces white circular sporulation on upper and lower leaf surfaces of cantaloupe. Photo: J. Reid, CCE

continued on page 9

We include here a short list of fungicide options that include control of both *Alternaria* and Powdery Mildew on cantaloupe. Note the different pre-harvest intervals (PHIs) and restrictions on consecutive applications. Rotation among fungicide groups highly recommended. For organic production rotation of sprays with copper and sulfur can reduce foliar diseases.

- Miravis Prime (groups 12 + 7), 1 day PHI, 2 max applications, restricted use
- Inspire Super (groups 3 + 9), 7 day PHI, no more than 2 consecutive applications
- Aprovia Top (groups 3 + 7), 0 day PHI, no more than 2 consecutive, 4 max applications, restricted use. – JR

CARROTS

Root-knot nematodes (*Meloidogyne* spp.) are a major pathogen of carrots, lettuce, and onions in New York. The Northern Root Knot Nematode (NRKN) has a host range of more than 550 crop and weed species. It can survive extremely low winter temperatures such as occur in New York. In carrots, take note of patchy growth in fields. Severely infected roots exhibit forking, galls, hairiness, and stubby roots. Note that forking can also be caused by other soil borne pathogens or compacted soil, however in these cases, no galls will be present on the taproot or fibrous roots. Crop rotation to non-host crops such as sweet corn and other grain crops can significantly reduce the population of NRKN in a field. Winter grain cover crops such as winter rye and oat are poor hosts for NRKN. Other grain and biofumigant cover crops may also reduce NRKN populations. A lettuce bioassay procedure is available to assess the population of NRKN in soils <https://ecommons.cornell.edu/handle/1813/43295>.

Powdery mildew (*Erysiphe heraclei*) is typically observed in hot dry weather. Carrots can survive moderate infection without loss in yields. However, where healthy tops are required such as in machine harvest where the carrots are lifted from the field, the disease can be problematic. It also causes cosmetic issues on foliage of carrots. Fungicides can be applied when the infection begins early in the season or when there is concern over loss of foliage. Several fungicides are labeled. Note that the label will list powdery mildew and the species name may follow as *Erysiphe heraclei*, *E. polygoni* (an older name), or just *E. spp.* – JK

CUCUMBERS

Downy mildew is popping up in many locations throughout NY.

DRY BEANS

Early planted fields are starting to mature. There doesn't appear to be much insect activity this week in dry beans. Some fields are showing signs of bacterial blight. – ML

Western bean cutworm trapping continues this week at 15 fields in locations in the region (Table 1). All locations are past peak flight, so now is the time to scout for damage to beans. To scout for WBC, inspect 50 plants per field (10 stops, 5 plants per stop), looking at all pods present on the plant for holes. If damage into the pod and seed is found with no larva present, it is possible this is WBC. An insecticide application is recommended if dry bean pod damage is found. (*Project funded by the NYS Dry Bean Endowment and led by Margie Lund, CVP*)

Table 1. Western bean cutworm adult moth numbers by date for each dry bean trap location. Red text indicates peak flight.

Dry Bean Location	July 1	July 8	July 15	July 22	July 29	Aug 5	Aug 12	Cumulative Moths
Attica (Wyoming Co.)	0	0	10	21	16	10	11	68
Avoca Valley (Steuben Co.)	-	0	0	6	68	10	12	96
Avoca Hill (Steuben Co.)	-	0	1	32	112	95	46	286
Caledonia 1 (Genesee Co.)	1	0	0	22	60	56	18	157
Caledonia 2 (Genesee Co.)	0	0	0	35	101	69	40	245
Churchville 1 (Monroe Co.)	1	0	10	112	86	42	48	299
Churchville 2 (Monroe Co.)	0	1	2	27	29	17	22	98
Geneva 1 (Ontario Co.)	0	0	0	7	28	40	28	103
Geneva 2 (Ontario Co.)	0	0	1	2	8	27	4	42
LeRoy 1 (Genesee Co.)	-	0	0	16	89	34	20	159
LeRoy 2 (Genesee Co.)	-	-	0	25	34	20	15	94
Pavilion (Wyoming Co.)	0	0	3	33	65	18	11	130
Penfield (Monroe Co.)	-	2	9	47	100	103	83	344
Wayland Valley (Steuben Co.)	-	0	2	17	65	45	35	164
Wayland Hill (Steuben Co.)	0	2	1	30	134	145	34	346

ONIONS

Rain today! After 6 weeks of a very hot drought. When you are relieved to see forecasted temperatures in the low 80s, you know it's been a hot summer! Within the next 2 weeks before Labor Day weekend, most fields will be getting their last fungicide/insecticide spray, which goes on at approximately 50% lodging, and then sprout inhibitor the following week (see article on page 3). Generally, disease pressure of Botrytis leaf blight (BLB) necrotic spots and Stemphylium leaf blight (SLB) remained low again this week with highest counts of BLB necrotic spots of 10-15 BLB spots/leaf and SLB being mostly secondary. In last year's onion fungicide trial, there was a strong correlation between yield and leaf dieback on August 8 when onions had 1.5-2" bulbs: more than 11% leaf dieback at this time resulted in a reduced yield. Also, leaf dieback on August 8 was strongly correlated to BLB necrotic spots on July 25: 11% leaf dieback aligned with 26 BLB necrotic spots/leaf (assuming BLB necrotic spots go on uncontrolled). Generally, BLB necrotic spots in our scouting fields have been much lower than this in the last 2 weeks. As you are finishing the fungicide spray season, for fungicide resistance management, the goal is to not

continued on page 10

use more than 2 apps of FRAC 3 and 19 (Oso) fungicides, no more than 3 apps of FRAC 7 fungicides (but aim for 2) and no more than 5 apps of FRAC P07 fungicides (although a maximum of 7 applications is within the limits of the Reveille label). Also, to reduce risk of yield reduction, aim for no more than 10-12 pt/A of Bravo.

Onion thrips were back this week in Elba after being below the spray threshold last week (no insecticide applications) and will need to be sprayed this week. In Wayne, onion thrips pressure was high (> 3 thrips/leaf) this week and Oswego is being scouted today, but usually thrips are very low in Oswego. A double application of Exirel 16 fl oz/A should be able to handle 3-5 thrips/leaf.

Sprout inhibitor should be applied when onions have 5-8 green leaves and are not putting on new leaves, which in a healthy field aligns perfectly with the week after 50% lodging. In fields that are dying back quickly, it is important to apply sprout inhibitor before they have less than 5 green leaves, as 3 green leaves is not enough – see article on page 3. Sprout inhibitor may be applied alone or with fungicides, insecticides and/or copper bactericide (to help with skin color and to dry down the necks). **If leaf dieback is 10% or less when lodging is 20% or more, that is usually a good indication that the crop will continue to lodge properly.** A crop with only 10% dieback has plenty of green foliage that will translate into putting on bulb size. Such a crop should get our best (Viathon + Tilt + Bravo) or second-best (Miravis Prime + FRAC P07 +/- Oso, Bravo 3 pt + Oso + FRAC P07 or Luna Tranquility + Switch + FRAC P07) fungicide spray for a strong finish. **If plants have 40% or more dieback at 20% lodging, they are on track to “die standing up”.**

For fields that are on track to die standing up, **gently rolling the foliage over so that the leaf axils are no longer exposed to splashing rain may prevent new bacterial infections from occurring.** There may also be benefits to rolling fields that are lodging properly as well, because any plants that are upright are more susceptible to bacterial infection. We know: 1) there is greater risk for bacterial bulb rot when upright onion plants with soft necks are exposed to a splashing rain event(s), and 2) rolling onions can reduce incidence of bacterial bulb rot. The unknown is whether there will be a weather event that would cause increased incidence of bacterial bulb rot. For more information on rolling onions to Stop the Rot, see our video: <https://youtu.be/C2-xtuVRdrk?si=58AflxMDEW0lktCY>.



PEPPERS

Seeing some peppers with damage from European Corn Borer. The adults lay eggs that look like fish scales on the foliage. Upon hatching, the caterpillars drill into pepper fruit near the shoulder or under the calyx. They feed inside the fruit and create an exit hole, usually in the lower portion of the fruit, when they are ready to pupate. These wounds can become infected with secondary rots, including bacterial soft rot. The time to treat is prior to entry into the peppers. You can easily scout for eggs while you check your peppers for aphids – just flip through the foliage on two sides of each plant you check. It's really fast. You can also keep an eye on the corn trap catches for your area, paying attention to ECB-E and ECB-Z counts.

POTATOES

There have been fewer new late blight reports this week, but we do still continue to see some spread to new fields in the same counties previously reported. All tested samples have been identified as US-23 which is susceptible to Ridomil. At this time we have no reason to believe that there are other strains present in western NY. **If you suspect you have late blight on your farm please contact CVP Specialist Margie Lund or Elizabeth Buck to come collect a sample for strain identification.** Early blight is also moving through fields this week, so be sure your fungicide program includes protection against early blight as well as late blight. – ML

SNAP BEANS

Harvest of the processing crop continues. Heat and drought stress continue to be the main issue at this time – JK

SQUASH

Seeing some gummy stem blight showing up in multiple counties. This is the same pathogen that causes black rot in your fruit. Treating now will preserve canopy and help prevent later and/or continuing infections that damage fruit. Also starting to see squash bugs, though heavy pressure so far seems to be more spotty than in most years. – EB

SWEET CORN

Smut has been common in the hot, dry weather. Northern corn leaf blight, gray leaf spot and tar spot have been observed at low levels in field and sweet corn. These diseases may kick up with rain and cooler temperatures. Harvest of the processing crop began this week and yields are lower than average because of drought and heat stress. Still a long way to go with this crop. – JK

Monitor the weekly [Sweet Corn Pheromone Trap Network Report](https://sweetcorn.nysipm.cornell.edu/) at <https://sweetcorn.nysipm.cornell.edu/> ●

Upcoming Events

Allegheny-Steuben Summer Vegetable Meeting

August 19, 2025 (Tuesday) | 6:00 - 8:15 PM
Henry Stutzman farm, 1086 Fortner Rd, Wellsville, NY

Field walk featuring crop protection best practices, skill practice, and farmer-to-farmer discussions. Vine crop fruit diseases and insect management, tomato foliar diseases including late blight, and cole crops will be special focuses.

2.0 DEC credits available in 1a, 10 and 23. Pre-registration requested by 5pm on Aug. 18th; contact Lynn Bliven lao3@cornell.edu or phone 716-244-0290.

Cornell Vegetable Variety Showcase and Pathology Twilight Meeting

August 20, 2025 (Wednesday) | 5:00 pm - 8:30 pm
Homer C. Thompson Vegetable Research Farm, 133 Fall Creek Rd, Freeville, NY 13068

The event will include discussion of disease management in several crops and variety showcases for tomato, squash, cucumber, pepper, potato, groundcherry and goldenberry. Variety tasting will be available. Concludes with a social hour & refreshments.

2.0 DEC Pesticide Credits will be available in categories 10, 1a, and 23. Find the agenda and registration form at <https://cals.cornell.edu/events/cornell-vegetable-variety-showcase-and-pathology-twilight-meeting>. Registration requested by August 18. Questions? Email Greg Vogel: gm23@cornell.edu

Chipping Potato Twilight Meeting

September 4, 2025 (Thursday) | 5:00 pm - 6:00 pm
Mahany Farms, 10046 NY-36, Dansville, NY 14437

Join us for a brief, on-farm meeting including insect pest updates and viewing of the chipping potato variety trial. 1.0 DEC credits in categories 10, 1a, and 23 will be offered. Dinner follows the event. FREE! No pre-registration required.

Rochester Soil Health Field Day

September 16, 2025 (Tuesday) | 2:30 pm - 6:00 pm
Foodlink Community Farm, 585 Lexington Ave, Rochester, NY 14613

Join us for a hands-on [soil health field day!](#) This event is for small-scale and urban growers, gardeners and farmers is a part of the [2025 Soil Health and Climate Resilience Field Days](#). Topics include cover cropping in small spaces—species selection, seeding and termination strategies; cover crop demonstration plots; building soil health in raised beds; best practices for dealing with heavy metals soil contamination in the urban environment; soil health demonstrations on impacts of cover crop and other management practices from NY Soil Health.

COST: FREE, light refreshments provided. Space is limited! Pre-registration required. Register at: <https://cvp.cce.cornell.edu/event.php?id=2082> Hosted by CCE Harvest New York and Cornell Vegetable Program, NY Soil Health, Monroe County SWCD, Taproot Collective, Rochester Urban Ag Working Group, Foodlink and more.

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(585) 303-4691
gcurcio@seedway.com



Sara Christ, 585.794.8937
Jason Detzel, 845.707.5631
www.stokeseeds.com

Cornell Cooperative Extension Cornell Vegetable Program

480 North Main Street
Canandaigua, NY 14424

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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 increased frequency leading up to and during the growing season.

Contact Us

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 Hoepfing | 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)

Lori Koenick | 585-469-5798 cell | lbk75@cornell.edu
fresh market vegetables, mushrooms, urban agriculture

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

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

PROGRAM ASSISTANTS & SUPPORT

Camila Ichazo | lichazo@cornell.edu

Angela Ochterski | aep63@cornell.edu

Destiney Schultz | ds2422@cornell.edu

Kaitlyn Stearn | ks2545@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



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