UCONN EXTENSION Vegetable Pest Alert

Updates and Scouting Reports from the Field

June 13, 2025

What to be on the lookout for...

In Wet Conditions, Bacterial Diseases Thrive



Recent meteorological reports from NOAA indicate this has been the third wettest spring on record in over 130 years. While total spring precipitation for 2025 isn't far off from recent years, the concentration and rapid accumulation in May, in conjunction with rising temperatures, has created an environment for bacterial diseases to thrive.

Angular Leaf Spot

All cucurbits are susceptible to angular leaf spot, but it is most commonly seen on cucumbers. This bacterial disease appears early in the season because it is seed-borne. Symptoms include small, round, water-soaked spots on the leaf tissue that expand until they are confined by veins, giving them the characteristic angular appearance. Under moist conditions, a milky white exudate containing bacterial cells may ooze out of the lesion on the lower leaf surface. These wet-looking spots will dry out and turn yellow-brown, or the dead tissue may fall out of the leaf altogether, leaving a "shot-hole". Yellowing of the leaf between lesions may occur where disease severity is high. Similarly, watersoaked spots may appear on stems and petioles, drying out to form a whitish crust.



Angular leaf spot on a zucchini plant. Photo: S. Scheufele, UMass Extension.

Similarly, water-soaked spots appear on fruit. These spots are small and dry out to form whitish, chalky spots. They cause internal decay of fruit, and fruit that is infected early may be deformed. Affected plants will grow poorly and produce less fruit. The affected fruit is also unmarketable. To control the spread of the disease, avoid working in the fields when the foliage is wet. Work in clean sections of the field first and infected sections last to avoid spreading the disease to so far unaffected plants. If you catch the disease early, before it is widespread and severe, <u>copper</u> may reduce the spread. However, sprays may not be effective if environmental conditions are conducive to the spread of the disease. Till in residues quickly after harvest to encourage a quick breakdown of infected plant tissue. Bacteria can survive on plant residue as long as it is present, up to two years.

Blackleg and Soft Rot in Potatoes

There are several species of bacteria that lead to blackleg disease and soft rot of potatoes. The pathogens originate in infected tubers and can cause significant economic impact on a crop. Initial symptoms can look like reduced plant emergence, dark brown or black lesions on the stem, lighter colored (yellow-green) foliage, curled leaves, wilted leaves, and plant dieback. Soft rot symptoms on the tubers begin on the surface and progress inward. Infections appear as soft, wet, rotted tissues that are delineated from healthy tissue by dark brown or black margins.

If conditions are favorable to the bacteria, the bacteria will multiply, leaking into the soil and becoming available to surrounding plants by means of contaminated soil, irrigation water, and insects.

Much of the work to prevent infection is done before or at the time of planting. This includes:

- Purchasing certified potato seed free of pathogens.
- Planting whole seed pieces, or if cutting seed, disinfecting tools with a sanitizer.
- Planting in well-drained sites.
- 2 year crop rotation. Other crops susceptible to soft rot include tomatoes, carrots, cucurbits and cruciferous vegetables. Cereals and legumes are good crops for rotation as they do not appear susceptible to infection.

Scout for symptoms and regularly remove and destroy infected plants, tubers, and surrounding soil. Good drainage helps reduce risk of bacterial breeding grounds.



Developing potato tuber infected with bacterial soft rot pathogen develops a soft decaying spot on the tuber surface. Photo: Nicole Gauthier, University of Kentucky.



Potato blackleg caused by *Dickeya*. Photo: Margaret McGrath, Cornell Cooperative Extension.

Striped Cucumber Beetles

Striped cucumber beetles are a hazardous pest in the field due to the damage they cause themselves, as well as their role as a vector for devastating diseases like bacterial wilt and squash mosaic virus. Young plants are particularly vulnerable to the threat of SCB. Adults primarily overwinter in field edges near last year's crop, with a small proportion remaining in the field. With the onset of warm days (>50° F), beetles feed on pollen in early-blooming wild plants. High tunnel and greenhouse cucumbers draw beetles first, followed by early field crops.

Cucumbers and muskmelons are highly susceptible to bacterial wilt; treat those crops if one beetle is found for every two plants. Butternut squash, watermelon, and most pumpkins are less susceptible to bacterial wilt and can tolerate 1-2 beetles per plant. There aren't many bee-friendly options for chemical control, so get populations under control early on to prevent the need to spray during flowering, or consider spraying in the evening after bees have stopped foraging.

The most effective OMRI-listed material is pyrethrin (e.g. Pyganic). Small plants can also be protected using kaolin clay (e.g. Surround), which needs to be reapplied to protect new growth.

Spotted Cucumber Beetles

A spotted cucumber beetle was seen on a crop of summer squash at a farm in Berlin earlier this week. Spotted cucumber beetles, also known as southern corn rootworm (SCR), feed on a very wide range of crops and weeds, and are often found in flowers. Adults are yellowish-green with 12 black spots on their back, and a black head. This pest rarely builds up to damaging levels in New England, but do pose a threat to young plants. Adults cause direct feeding damage to cotyledons, leaves and the base of the stem, while larvae feed on plant roots. Cucumber and muskmelon are highly susceptible to beetle feeding and the secondary impact of bacterial wilt.

See the NEVMG for insect control information on:

<u>Cucumber and Melon</u>



An adult striped cucumber beetle. Photo: Alan T. Eaton, UNH Cooperative Extension.



The stem of a melon plant has been damaged by striped cucumber beetle larvae. Adult scarring can be seen on the vine. Photo: Whitney Cranshaw, Colorado State University, Bugwood.org.



An adult spotted cucumber beetle. Photo: S. Ellis, Bugwood.org.

• Pumpkin, Squash, and Gourds

Squash Bugs

An adult squash bug was spotted in CT this week. Adults often hide around the base of the plant or under plastic mulch, making them hard to target with sprays. Eggs are usually deposited on the leaves in an organized, neatly-spaced pattern, in groups of 10 to 20. Both adults and nymphs have needle-like mouthparts to extract plant juices. Their feeding damage can cause the plant's vascular system to clog, ultimately leading to plant wilt and death. Squash bugs are also vectors for cucurbit yellow vine decline, a bacterial disease that has been found in isolated places in CT and MA.



Squash bug nymphs and eggs. Photo: UMass Extension.



Adult squash bug. Photo: N. Davidow, UConn Extension.

Scout undersides of leaves for squash bug adults and eggs and treat if egg masses exceed 1 per plant. Time squash bug sprays to kill young nymphs which are easiest to control. Thorough coverage is necessary. As this often coincides with the bloom period, treat late in the day to reduce risk to bees and select products with lower bee toxicity. See the New England Vegetable Management Guide for a page on <u>insect control for pumpkin, squash and gourds</u> for spray options.

Potato Leafhopper

A grower in Enfield, CT reported potato leafhoppers (PLH) this week. PLH is often a pest of beans and potatoes, but can also impact eggplant crops. The presence of nymphs indicates an established population. Signs of injury begin with leaf veins turning pale, followed by yellowing or browning of areas of the leaf or leaf tips which is known as "hopperburn". Leaves become brown, curled up, and die. Plants may be stunted, and yields reduced or lost. This process may take less than a week. PLH may also vector many viruses.

Scout using sweep nets or shake plants to see if adults fly up when the plant is disturbed. Nymphs can be counted on the underside of leaves. Seedling beans should be treated if they have 2 adults per foot of row. From 3rd trifoliate leaf to bud stage, treat when PLH exceed 1 nymph/leaflet or 5 adults per foot of row. Repeat application in 7 to 10 days if necessary. In potatoes, treat if more than 1 adult per sweep is found, or more than 15 nymphs are found per 50 leaves. Be sure to treat lower leaf surfaces. In fields where systemic seed treatment was used, foliar treatment should not be needed before bloom.



Light green nymphs (circled) on the underside of a potato leaf showing hopperburn. Photo: UNH Extension.



Hopperburn on bean plants. Photo: S. Ghimire, UConn Extension.

See the New England Vegetable Management Guide for recommendations on insect control options for <u>beans</u>, <u>potatoes</u>, or <u>eggplant</u>. Additional information can be found on the page for "<u>Insects That Can</u> <u>Be Controlled By Row Covers</u>".

Cucurbit Powdery Mildew

Powdery mildew (PM) was spotted in a field of summer squash in CT this week. The recommendation is to spray protectant fungicides to delay infection if your cucurbits don't have it yet. Protectant materials include sulfur, oils, chlorothalonil (e.g. Bravo), and copper. Once you find PM in your crop, add a targeted PM material, and rotate between fungicide classes with each spray. Examples of trade names of targeted PM materials include Switch, Luna Experience, Rhyme, and Procure. Quintec, Endura, and Torino are also labeled for PM, but resistance to these fungicides has been recorded so only one should be used in a rotation. Margaret McGrath at Cornell University published a collection of great resources on cucurbit powdery mildew that also includes a table of targeted fungicides with their resistance status and use recommendations.



Summer squash leaves with white powdery appearance. Photo: N. Davidow, UConn Extension.

Precautions When Transplanting Vegetables Into Plastic Mulch

When transplanting seedlings into black plastic mulch (polyethylene or biodegradable), you can take some precautions to avoid heat and abrasion injury to the seedlings.

- First, make sure planting holes on the mulch are wide enough so the transplants do not touch the edge of the plastic.
- Fill the holes with soil to keep the plants from leaning over and touching the plastic. This will minimize potential chimney effect that could burn the plant when hot and sunny days occur shortly after transplanting.
- <u>Placing soil around the transplant</u> will prevent water from puddling around the plant and will reduce the chances of root and crown diseases.
- If an herbicide is applied in pathways that is harmful to the crop planted into the plastic mulch, filling the hole with soil from pathways could cause damage or kill the crop. Read the herbicide label before using treated soil from row middles to fill in the planting hole.



This pepper seedling is wilting because the stem is severly burned where it touched the hot plastic mulch. Photo: Richard VanVranken.

Continue to be on the lookout for the following:

Colorado Potato Beetle Sweet Corn Pests Spinach and Beet Leafminers Brassica and Solanaceous Flea Beetles Cabbage Maggot Onion Thrips Tarnished Plant Bugs

See Previous Pest Alert Messages On Our Website



2025 Connecticut Pomological Society's Summer Field Day

Tuesday, June 17, 2025 Rogers Orchard, Southington CT Free to Attend Please RSVP

Schedule of Events:

- 3:00 Arrival at Retail Store (336 Long Bottom Rd.)
- 3:15 Opening Remarks/Welcome/Tour of Packing Facility
- 4:00 Head to Longview Ciderhouse (36 Long Bottom Rd.)
- 4:30 Brief Overview of Farm History and Planting Modernization
- 5:00 Time to Visit Vendors/Equipment; Cider Truck Open
- 5:30 Dinner
- 6:15 Start Educational Meeting (~1 CEU requested)
- 7:30 Adjourn



Virtual Agricultural Labor Seminar

Wednesday, June 25, 2025 10:30 AM to 5:30 PM hosted by the U.S. Department of Labor's Wage and Hour Division

Topics will include requirements for wages, housing, field sanitation, farm labor contractor registration, and the H-2A program.

This event is free to attend, but space is limited, so be sure to register.

To request accommodations or for other inquiries about accessibility, please contact William Sabik (sabik.william@dol.gov) by June 17, 2025.



EXTENSION & PLANT SCIENCE AND LANDSCAPE ARCHITECTURE



Vegetable IPM Field Workshop

July 9, 2025 3:30 - 6:30 pm

UConn Plant Science Research and Education Facility

59 Agronomy Road, Storrs CT

Presentations include:

- UConn Plant Diagnostic Lab updates and plant disease management tips, Dr. Nick Goltz, UConn
- Late season vegetable IPM strategies with focus on cucurbits, Dr. Shuresh Ghimire, UConn
- Beneficial insect vs. pest identification hands-on training, Dr. Ana Legrand
- Tour of vegetable research plots
- Complimentary light dinner



- There is no cost to attend this workshop but registration by July 7 is required. Seating is limited - reserve your spot today!
- Register online (preferred) at this link: https://forms.gle/xB8WD1yThfXqtkng7 or call 860-486-0572 to register by phone.
- 3 pesticide recertification credits in PA and 1A categories pending approval
- Questions can be e-mailed to <u>ana.legrand@uconn.edu</u> or leave a message at 860-486-0572.
- If you require an accommodation to participate in this event, please contact organizer at above e-mail or phone number by July 1, 2025.

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USDA National Institute of Food and Agriculture U.S. DEPARTMENT OF AGRICULTURE

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SMALL FARM



New or existing tools to re/design?

Considering infrastructure improvements for energy use, water/waste management?

Incorporating data analytics for farm management?

Students in the College of Engineering and College of Agriculture, Health and Natural Resources want to help! We are offering financial and technical support for selected projects starting in Fall 2025. Help support the training of our students and we will help make your idea a reality.

LOOKING FOR INFRASTRUCTURE AND ENVIRONMNETAL IMPACT IDEAS!

DUE JULY 15TH

UCONN LICO

Must be a production farmer located in Connecticut with at least 1 year of production experience operating their own farm business.

GROUND

SIDAID



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Contact Information

Shuresh Ghimire, Vegetable Extension Specialist: shuresh.ghimire@uconn.edu

Nicole Davidow, Outreach Assistant: nicole.davidow@uconn.edu

Vegetable IPM Office Phone Number: 860-870-6933 Vegetable IPM Cell Phone Number: 959-929-1031 (feel free to text/iMessage photos) Vegetable IPM Pest Alert Audio Recording: 860-870-6954

Stay in touch with us

- Share what you see: We're here to assist with identification, management strategies, and guidance on best practices. Send us a photo/message via text at 959-929-1031.
- Facebook Group: UConn Extension moderates a private Facebook group specifically for commercial vegetable producers. It is a space to share photos of insects and diseases you find in your fields, ask questions, share ideas, and stay engaged with growers across the state. Click here to join: "UConn Extension Vegetable IPM"
- Schedule a Consultation: Would you benefit from meeting with an Extension Specialist at your farm to provide insight on pest or disease identification, management strategies, and more? If so, please contact our Vegetable Extension Specialist, Shuresh Ghimire, to set up a farm visit. Contact him at shuresh.ghimire@uconn.edu or 860-870-6933.

Thank you for reading!

This report was prepared by Nicole Davidow, Outreach Coordinator, and Shuresh Ghimire, Commercial Vegetable Specialist, UConn Extension.

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