

# Vegetable Pest Alerts

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## What to be on the lookout for...

### Bacterial leaf spots on pepper

This is one of the most destructive diseases of peppers in New England. Chemical controls are often ineffective.

Scout fields weekly for plants with small brown leaf spots. Work infected fields last. Do not use high pressure, air-blast sprayers which cause increased leaf infection in rows adjacent to spray alleys and spread bacterial diseases across rows. Destroy crop residue after harvest to encourage rapid decomposition.

For future reference, disease-resistant varieties

<https://www.vegetables.cornell.edu/pest-management/disease-factsheets/disease-resistant-vegetable-varieties/disease-resistant-pepper-varieties/>. Effective management requires rotating to fields where Solanaceous crops and weeds in the nightshade family have not existed for at least 2 years. Hot water treat pepper seeds at 122°F for 25 minutes.



### Bacterial specks on tomatoes

Lesions on leaves are round and dark brown to black with a halo that develops with time. Spots may coalesce, killing large areas of tissue. On fruit, small (1/16 inch), dark spots or specks develop with the tissue around them often more intensely green than unaffected areas. This disease may be seed-borne or may overwinter in crop debris in the field like bacterial spot discussed above. Bacterial speck is generally of minor concern. The management is similar to bacterial spots discussed above.



## Leaf mold in high tunnel tomatoes

The recent humid weather in combination with tomato plants rapidly growing into dense plantings creates the perfect environment for leaf mold. To control leaf mold, it is critical to improve airflow and reduce humidity by venting and pruning. Removing infected foliage can slow the spread of disease from leaf to leaf and plant to plant. Avoid excessive nitrogen fertilization. Remove diseased leaves, place in plastic bag, and destroy. At the end of crop cycle, remove and destroy all plant residue. For next seasons, consider using [resistant cultivars](#). See <https://nevegetable.org/crops/disease-control-24> for spray options.



## Hornworms

The adults are large moths, predominately gray or gray-brown with lighter markings. They are commonly referred to as sphinx, hawk, or hummingbird moths. The wingspread may reach five inches and the hairy, robust abdomen has yellow spots. They emerge from over wintered pupae in the soil in late spring or early summer.

Look for the large pellet-like fecal droppings on the plastic under the plants, defoliation of leaves with only bare stems remaining, or surface feeding scars on green fruit. Caterpillar infestations usually begin in July and may extend through September. Use selective insecticides to preserve natural enemies and avoid secondary pest outbreaks



(i.e. aphids). Bt containing product (e.g. Dipel and XenTari) are effective and should be rotated for resistance management. These products must be ingested; apply in evening or early morning, before larvae are actively feeding. Adherence will improve with use of an approved spreader-sticker.



Adult form of *tomato hornworm*, sometimes called the five-spotted hawkmoth. Photographs by Jeremy Whipple, MPTN (left); by John Capinera, University of Florida (below).



### **Cucurbit powdery mildew**

Powdery mildew of cucurbits is developing now. Scout fields regularly and apply fungicides early in disease development. Protective fungicides (e.g. sulfur, horticultural oils, chlorothalonil, copper, mancozeb) should be applied before the first sign of disease as powdery mildew spreads rapidly and cannot be controlled once disease is well established.



Once PM develops in your crop, add a PM-targeted material to your spray schedule and alternate between at least 2 different chemistries. Effective targeted materials include Vivando, the DMI fungicides (e.g. Proline, Procure), Gatten, the Luna fungicides (Sensation, Experience, and Flex), Miravis Prime, and Orondis Opti.

### Squash bugs

Adults are out now across the region. Adults often hide around the base of the plant or under plastic mulch and are hard to target with sprays. Eggs are usually deposited on the leaves in an organized, neatly-spaced pattern, in groups of 10 to 20. 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 <https://nevegetable.org/crops/insect-control-19> for spray options.



Adult squash bug. Photo: T. Kuhar



Eggs and newly hatched nymphs (Photo: UMass Extension)

### Japanese, oriental and Asiatic Garden beetles

While they have wide host range, mainly they are seen doing damage on basil and brassicas. Japanese and Oriental beetles feed during the day, while Asiatic Garden beetles feed at night and take refuge in the soil during the day. Heavy infestations may warrant insecticide applications. see the applicable crop section of the New England Vegetable Management Guide for a list of labeled materials. In small plantings, hand-picking into a bucket of soapy water is effective.



Japanese, Oriental, and Asiatic Garden beetles from left to right (photos: The Garden Barn, Vernon, CT)



## Purple blotch of onions

It often begins on older leaves as small, sunken, water-soaked lesions with light centers. Lesions enlarge as disease progresses and turn purple to brown, often with yellow rings that create a distinctive bull's-eye pattern. Bulb rot symptoms begin as soft, water-soaked areas; eventually, bulbs turn dark reddish-purple, then brown/black.

The pathogen overwinters in crop residue on or near the soil surface. Spores are produced and new plants infected during periods of warm (77-85°F) humid weather. The spores are spread by wind and splashing rain or irrigation. Purple blotch and *Stemphylium* leaf blight sometimes occur on the same plant at the same time. Microscopy is necessary to distinguish the two fungi; however, control measures for both species are the same.

Start with pathogen-free seed/sets. Avoid excessive nitrogen. Rotate out of onions for at least three years. Remove or plow under plant debris. Allow onions to cure properly before leaf removal.

**Corn earworm.** Trap capture was 0.5/night this week in a farm in Berlin.

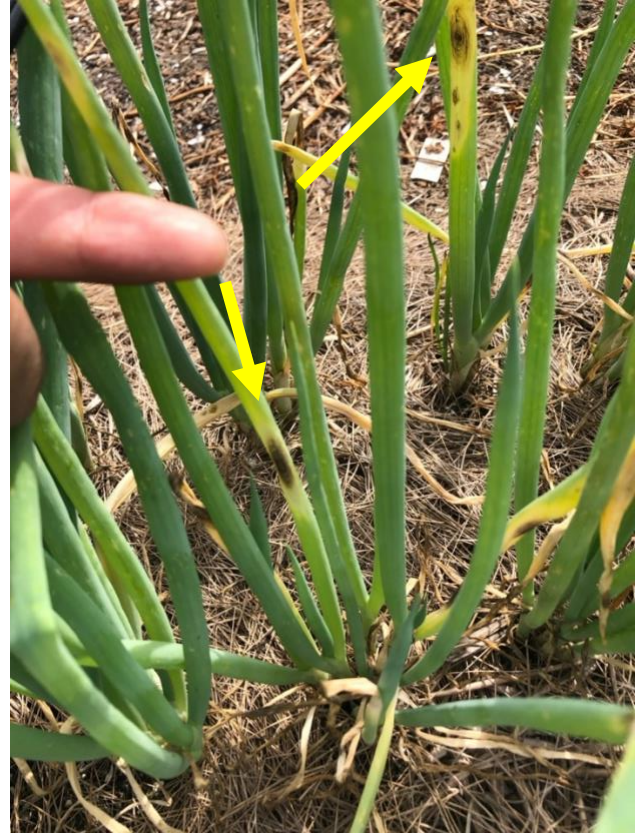


Table. Spray Intervals for Corn Earworm based on moth captures in *Heliothis* net traps.

Moths/Night	Moths/Week	Spray Interval
0 - 0.2	0 - 1.4	no spray
0.2 - 0.5	1.4 - 3.5	6 days
0.5 - 1	3.5 - 7	5 days
1 - 13	7 - 91	4 days
Over 13	Over 91	3 days

**European corn borers (ECB)** are continuing to be trapped, but in low numbers. Corn with newly emerging tassels should be scouted weekly for the presence of ECB larvae by inspecting the tassels of 50 to 100 plants, in groups of 5 to 20 plants throughout the field. Treat if more than 15% of the plants have one or more larvae present. Use of selective products to control ECB will conserve natural enemies of aphids and ECB.

**Continue to be othe lookout for**

- Onion thrips
- Striped cucumber beetles
- Mexican bean beetles
- Potato leaf hopper
- Squah vine borers

***Thanks for reading!***

This report was prepared by Shuresh Ghimire, UConn Extension. All photos in this publication are credited to UConn Extension Vegetable IPM Program unless otherwise noted.

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**Contact us with any  
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related questions!**

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