

# Vegetable Pest Alerts

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# UConn

COLLEGE OF AGRICULTURE,  
HEALTH AND NATURAL  
RESOURCES

EXTENSION

*Welcome to this week's pest alert!*

## UConn EXTENSION VEGETABLE IPM PROGRAM WELCOMES NEW OUTREACH ASSISTANT!



*Photo 1: Welcome, Maggie! Posing here in front of beautiful flowering sunchokes at Sub-Edge Farm in Farmington, CT.*

Hi everyone! My name is Maggie Ng. I'm from Los Angeles, California. I originally found myself in New England to attend Hampshire College in Amherst, Massachusetts. I have stayed in the Northeast since graduating in 2018, and this is my first week at UConn! I will be working as the Outreach Assistant for the Vegetable IPM Program. I'm most excited about connecting with farmers themselves, and acting as a resource for support in helping a grower achieve their goals.

I am coming from the University of Massachusetts Amherst, where I also worked in Extension as a departmental assistant for the Vegetable Program, with responsibilities

ranging from administrative support to on-farm research and technical assistance. My area of interest is in climate change and agriculture—I am most interested and invested in supporting farmers in exploring and implementing climate change mitigation and adaptation strategies in vegetable farming. This can encompass issues related (but certainly not limited) to pests, diseases, or abiotic stresses (heat, drought, and other extreme weather events). I got interested in this subject through working as a farmer on diversified vegetable farms, and experiencing these issues first-hand. Bearing witness to the resiliency and innate adaptability of farmers and their operations was an invaluable experience and informs my work every day.

I am excited to explore Connecticut, and hope to build community within and outside of the farming world in this region. In my time outside of work, I love to swim, take photographs, go to music shows, watch movies, eat good food, crochet, and hang out with my cat. I look forward meeting many of you this fall. I will be reaching out to schedule farm visits, but please don't hesitate to reach out to me as well! I can be reached at [maggie.ng@uconn.edu](mailto:maggie.ng@uconn.edu).

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

#### **GUMMY STEM BLIGHT (BLACK ROT) OF CUCURBITS**

Gummy stem blight (also known as black rot) is a major disease of cucurbits and can cause significant damage to susceptible crops. It is caused by the fungal pathogen *Didymella bryoniae*, which thrives in wet conditions. Symptoms include oddly-shaped lesions on leaves that coalesce into large, necrotic areas, stem lesions around the base of the plant that produce a gummy ooze, and lesions on fruit.

The pathogen can survive and overwinter on remaining field debris, weed hosts, and in infected seeds. It is important to start clean—use certified disease-free seed.

Crop rotation is also important in breaking the disease cycle. Rotate on a 3- to 4-year cycle to non-host species in affected areas. Control weeds and volunteer plants as well, and crop debris should be immediately tilled in or removed. Fungicide applications can be helpful in management. Protectant chemicals include chlorothalonil and mancozeb, but systemic fungicides are typically more effective at controlling outbreaks.



*Photo 2: Black rot symptoms on butternut squash.  
Photo: UMass Extension Vegetable Program*

#### **PAPAYA RINGSPOT VIRUS (WATERMELON)**

Symptoms of Papaya ringspot virus (PRSV) were found on watermelon fruit in New London Co. (see photo 3). PRSV is vectored by aphids, and all cucurbits are



susceptible to infection. Symptoms can include ring-shaped lesions on fruit, and mosaic-patterns and serration on leaves.

There are many commercially available resistant cucurbit varieties that can be found [here](#). Because PRSV is transmitted by aphid feeding, controlling aphid populations is an important preventative step. There are no means of management post-infection.

### **BOTRYTIS LEAF BLIGHT OF ONION**

Botrytis leaf blight (also known as botrytis leaf spot) is caused by *Botrytis squamosa*, which is an airborne pathogen that land on leaf surfaces and infect plants through existing entry wounds or wounds created by enzyme excretion. It thrives in wet conditions and infects when leaf wetness hours are sufficient.

Rotating away from alliums for at least 3 years can help break the disease cycle, as well as proper plant spacing (12 inches apart in-row) to allow for drying and sufficient air flow. Destroy cull piles.

### **ONION MAGGOT**

Peak flight of the 2<sup>nd</sup> generation of onion maggot adults occurs at 2975 GDDs (base 40°F); we are currently at 3872 GDDs. This means that 3<sup>rd</sup> generation maggots may be popping up in your curing bulbs that came out of the ground around peak flight, or infesting crops that are still in the field.

Susceptible crops include all alliums (including scallions, leeks, shallots, chives). Onion maggot adults lay eggs in the soil around the base of a plant. Maggots then tunnel down into the soil, feeding on the roots and stem, causing aboveground symptoms of leaf senescence and yellowing/purpling.

Management includes protective insect netting (row cover, Proteknet) for exclusion of adult flies prior to peak flight times, rotating crops, delayed planting until soil temperatures reach 95°F, and destroying cull piles. Chemical management includes insecticide applied directly to soil to target maggots after infestation.



Photo 3: Symptoms of Papaya ringspot virus on watermelon.  
Photo: Andrew Lathrop, Lathrop Farmstead, Lebanon, CT



Photo 4: White mottling and blotching symptoms of Botrytis leaf blight on onion. Photo: Lindsey du Toit, Washington State University



Photo 5: Onion maggot eggs laid at the base of a plant.  
Photo: Ken Gray Insect Image Collection

## ONION THRIPS

Moderate onion thrip damage was found on bunching scallions in Tolland Co. this past week. Thrips hide between leaf blades and come out to feed overnight, but can typically be found if you separate blades. Feeding damage causes white stippling on leaves, and can act as entry wounds for pathogens.

There is little to be done about moderate to severe infestations at this point.

## CABBAGE ROOT MAGGOT

Cabbage root maggot (CRM) is difficult to distinguish from other root maggots. Symptoms of CRM are similar to those of onion root maggot.

It is useful to use GDDs to determine when CRM is active. According to the [NEWA Cabbage Maggot Tool](#), we are at 3872 GDDs in Storrs, meaning we are experiencing the 4<sup>th</sup> generation of CRM. Another way to determine the presence of a root maggot is by carefully examining the soil around the base and roots of a plant.

Management is similar to that of onion maggot.

## SALT MARSH CATERPILLAR

Salt marsh caterpillars are occasional pests but can do some real damage on onions and brassicas. Broadleaf weeds are the normal host plants, but larvae commonly disperse from these late in the growing season to damage vegetable and field crops. Other vegetable hosts include asparagus, bean, beet, carrot, celery, corn, lettuce, pea, tomato, turnip, and probably others.

Larvae are defoliators. Young larvae feed in clusters and skeletonize foliage. Older larvae are solitary and eat large holes in leaf tissue. They tend to be more damaging to fall crops. Sprays of *Bacillus thuringiensis* (Bt) or spinosad will control them.

## DAMPING-OFF

Damping-off was witnessed in recent broccoli transplants in the field in Tolland Co. It is a common and fatal infection that can affect seedlings in the greenhouse and transplants in the field. Damping-off



Photo 6: Onion thrips like to hide between leaf blades. Photo: Whitney Cranshaw, Colorado State University



Photo 7: Cabbage root maggots at the base of a broccoli plant. Photo: UC ANR



Photo 8: Salt marsh caterpillar feeding on a scallion blade.



Photo 9: Eggs of the saltmarsh caterpillar, Photo by John L. Capinera, University of Florida.



can be caused by a host of soil-borne fungi, namely *Rhizoctonia*, *Fusarium*, *Pythium*, and *Phytophthora* species. Symptoms include spotty germination and aboveground wilting and subsequent death of recent transplants or seedlings. Post-emergence damping-off results in dark and shriveled stems.

These pathogens thrive in wet, cool, and saturated soil, and can be transmitted via contaminated soil or potting media, tools, pots, or irrigation water. Seeding or transplanting during periods of cool, cloudy weather can result in greater instance of damping-off, as plant growth is less vigorous. Preventing damping-off can be achieved through sterilizing trays/pots and any tools to be used, using clean potting media (not field soil) to fill trays, and delaying planting until soils reach optimal temperatures for a particular crop.



*Photo 10: Damping-off of pepper seedlings in a tray.  
Photo: A. Henn, MSU Extension*

### **SWEET CORN PESTS**

Corn earworm (CEW) numbers are up again from last week, while European corn borer and fall armyworm trap counts remain low in the region. Trap counts at a farm in Shelton ranged from 3 to 68 CEW moths per night this week. Trap counts at a farm in Berlin averaged 3 CEW per night keeping them at 4-day spray schedule.

**Continue to be on the lookout for the following pests that were covered in [the previous pest alerts \(2023\)](#):**

- Cucurbit powdery mildew
- Cucurbit downy mildew
- Allium leafminer
- Phytophthora blight, root rot and crown rot
- Bacterial canker of tomatoes
- Alternaria leaf spot on brassica crops
- Cross-striped cabbageworm
- Early blight and Septoria leaf spots on tomato
- Pepper and tomato anthracnose
- Verticillium wilt in eggplant and tomatoes

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***Thanks for reading, and happy planting!***

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

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