UCONN | EXTENSION

Vegetable Pest Alert

Updates and Scouting Reports from the Field April 18, 2025

What to be on the lookout for…

Aphids on lettuce.
Left image: Aphid infestation on lettuce. Photo: John Obermeyer, Purdue University
Right image: Aphid in final stage of development before becoming an adult. Photo: Whitney Cranshaw, Colorado State University, budwood.org

Aphids on Vegetable Crops in Greenhouses and High Tunnels

This week we received a report of aphids on lettuce growing in a greenhouse on a farm in Morris, CT. As growers are finishing up winter crops of greens in their high tunnels or greenhouses, and turning over beds for spring planting, the presence of aphids and the question of their longevity or persistence is a common concern. Some species of aphids have a wide host range and therefore a greater likelihood of carrying over to summer crops Others are more specific. See below for information on aphid lifecycles, behaviors, species identification, and management strategies.

Biology and Life Cycle of Aphids
Most of the aphids found in greenhouses do not mate and will reproduce asexually. These unmated adult females give birth to live nymphs, all of which are also female. An adult female may live for up to one month. During this time, she may give birth to 60 - 100 live aphid nymphs. They mature quickly, in as little as 7-10 days, making it possible for populations to increase rapidly. As aphids molt, whitish cast skins are left behind. Migratory winged aphids may appear suddenly when the colony becomes overcrowded or when the food supply is depleted. Winged aphids may also enter greenhouses or tunnels from outside.

Aphid Feeding Damage
Aphids feed by inserting their stylet-like, sucking mouthparts directly into the phloem and removing plant sap. When high aphid populations develop, plants become stunted and can cause curling and twisting of the young leaves. Some aphids also transmit viral plant diseases as they feed. A sugary plant sap known as “honeydew” is excreted as their waste. This can attract ants and promote black fungi called sooty mold.

Identification
Aphids are small (less than ⅛ of an inch long), soft-bodied, pear-shaped insects with long legs and antennae. Look for cornicles or “tail pipe like” protrusions at the rear of their abdomen. Aphids vary in color depending upon the plants they are feeding on so do not rely upon color to identify species. Proper identification is important as it will aid in selecting the most effective biological control agent.

Monitoring
Regular, weekly scouting is important to detect aphids early before populations explode. Focus on random plant inspections to detect wingless aphid nymphs. Look for the whitish cast skins and honeydew on key plants such as Cole crops, leafy greens, pepper, and eggplant.

Common Aphid Species
Three of the most common species found in greenhouses include the **green peach aphid** (Myzus personae), the **melon** or **cotton aphid** (Aphis gossypii) and the **foxglove aphid** (Aulacorthum solani). The **potato aphid** (Macrosiphum euphorbiae) is less common but can occur on tomato and peppers.

- **Green peach aphids** tend to be spread more evenly throughout the crop, whereas melon aphids tend to be found in isolated hot spots. They are identifiable by their long cornicles with black tips that go approximately the length of the body. The heads of green peach aphids also have a distinct indentation at the base of the antennae.
- **Melon aphids** are also less likely to form winged adults and usually stay on the lower leaves and along plant stems. They have short cornicles and vary in color from light yellow to vary dark green (can appear black). Their antennae are typically shorter than their body.
- **Foxglove aphids** inject toxic saliva as they feed leading to curled and distorted leaves and early leaf drop. Foxglove aphids also tend to drop off the leaves so they may be hard to find. They have green flecks at the base of their cornicles and black markings on their leg joints and antennae.They are more of a problem in cool springs because they reproduce faster at cooler temperatures between 50˚ and 60˚ than they do at 77˚.
- **Potato aphids** tend to be scattered throughout the plant. They can be distinguished by their long legs with dark tips and light brown cornicles that are about half the length of their body.

Adult green peach aphid. Photo: Jim Baker, North Carolina State University, Bugwood.org.

Adult foxglove aphids. Photo: Jim Baker, North Carolina State University, Buggwood.org.

Cultural Controls

- Aphid-infested weeds under greenhouse benches or along the edge of greenhouses are a frequent host of aphids and lead to recurring aphid problems. Inspect and remove weeds promptly.
- The use of excessive nitrogen promotes lush growth and creates soft plant tissue that is favorable to aphid development.
- Thoroughly inspect all incoming plant material and spot treat if necessary.

Biological Controls

- **Aphid parasitoids** (parasitic wasps) develop in a single host and kill the host as they grow and mature. In general, parasitoids are more effective than predators in reducing aphid populations, but as they are host specific, you have to ensure the proper identification of aphid before purchasing. If you are unsure or have multiple species, mixtures of different aphid parasitoids are commercially available. Parasitoids are shipped as either adults or "aphid mummies" from which the adults will emerge.
- **Aphild predators**:
  - Green lacewing (*Chrysoperla rufilabiris and C. cornea*) are active at night and feed on nectar, pollen, and honeydew. The predatory larvae known as "aphid lions" prefer to feed upon aphids, but will also feed on whiteflies, spider mites, thrips, and caterpillar eggs.
  - Ladybird beetles in both larvae and adult stages feed upon aphid nymps and adults. They also feed upon pollen, fungi, and nectar in the absence of prey. Eggs are laid near prey and larvae may consume between 500 to 1000 aphids. Older, fourth instar larvae are more efficient at capturing prey than adults.

If aphids are abundant then you must reduce their numbers before releasing natural enemies. Alternative pest control material can be applied before releasing natural enemies in order to make the population more manageable and increase the effectiveness of the natural predators.

Chemical Controls

Chemical options for aphids and other pests for vegetable transplants can be found in the "Vegetable Transplant" section of the New England Vegetable Management Guide. This is available at: https://nevegetable.org/vegetable-transplant-production/insecticides-labeled-insects-and-mites.

Links to More Online Resources on Aphids:

- Pest Management for Vegetable Bedding Plants, Leanne Pundt, UConn Extension and Tina Smith, UMass Extension.
- Common Greenhouse Aphids Fact Sheet, C.E. Frank & M. Skinner, University of Vermont.
- Aphids on Greenhouse Crops, Tina Smith, UMass Extension.

Have a question about a pest or disease in your vegetable crops?

Email: Shuresh Ghimire, Vegetable Specialist at shuresh.ghimire@uconn.edu
Call: UConn Extension Vegetable IPM Office at 860-870-6933

Spring Nutrient Management Tips For Garlic

In early spring, as the ground thaws and the red maples begin to bud, garlic growers eagerly check on their fall planted crop. As the spring kicks off the true growing season for garlic, and garlic being such a heavy feeder, nutrient applications in the spring can support a healthy, robust crop.

Spring Nutrient Management Tips for Garlic:

1. Sidedress with 40 lbs nitrogen per acre when shoots are about 6 inches high. This can be done with blood meal, pelleted chicken manure, or a synthetic form of nitrogen. Early nitrogen supports healthy leaf growth and bulb development.
2. Do a second sidedress of the same amount about 3-4 weeks later. This will likely be in early May when bulbs start to swell due to lengthening daylight. Split applications help ensure the plant has nitrogen available throughout its active growth stages without excessive leaching.
3. If a leguminous cover crop (e.g., hairy vetch or clover) was incorporated before planting, reduce nitrogen rates accordingly. These cover crops slowly release nitrogen as they decompose, which contributes to better soil fertility.
4. P and K amendments should have been applied before planting as per the soil test recommendations. However, even if P and K were not adjusted, spring nitrogen recommendations are still applicable.
5. Watch for signs of nutrient stress, particularly nitrogen deficiency, which may appear as yellowing of older leaves. Deficiencies during rapid growth can significantly reduce yield and bulb size.

While weeds should not be a problem at this time of year, it is important to stay on top of your weed management strategy. As garlic requires high fertility, it does not do well with weed competition.

- Use surface cultivation or flame weeding between rows in spring to eliminate early weed seedlings.
- Avoid disturbing in-row zones too much as garlic has shallow roots.
- Control perennial weeds before planting as they are very difficult to manage once garlic is growing.

American Farmland Trust

The American Farmland Trust (AFT) Brighter Future Fund's **Emergency Resilience Grant** was formed through generous support from donors and members seeking to offset financial disruptions farmers and ranchers are experiencing due to natural disasters (such as flooding, wildfires, or avian flu), the loss or delay of funding due to the government funding freeze, or a loss of markets.

Due to the generosity of donors, AFT anticipates making at least 25 grant awards specifically to farmers in New England.

Grants are up to $10,000! Funding will be prioritized for small to mid-size farms that have previously faced challenges accessing traditional funding opportunities, enhancing financial resilience, supporting business technical assistance, investing in business building, and/or fostering soil health and environmentally beneficial agricultural practices. To be eligible, your project should clearly show how it will boost your financial resilience or open up new markets.

Applications are open from April 16 - 26

Check out AFT's guide to eligible projects at farmland.org/resilience or email the Brighter Future Fund Team anytime at brighterfuture@farmland.org.

New England Soil Health Survey

Get free soil health testing on your farm by participating in AFT's New England Soil Health Survey! Free soil testing is available through this new program from AFT New England and the USDA ARS Food Systems Research Unit. Farms in Vermont, New Hampshire, Connecticut and Massachusetts are eligible to receive free soil health testing on up to three fiels after completing a short survey.

Learn more at: https://farmland.org/new-england-soil-health-survey/

Stay in touch with us!

- **Share what you see:** If you've identified a pest or disease in your field, we're interested to hear from you. We track information from vegetable farmers throughout the state all season long. We're also here to assist with identification, management strategies, and guidance on best practices.
- **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:** Is there something in your vegetable fields or high tunnels that is giving you reason for pause? Would you benefit from meeting with an Extension Specialist to provide insight on pest or disease identification, management strategies, and more? If so, please contact our Vegetable Extension Specialist, Shuresh Ghimire, to setup a farm visit. You can email him at shuresh.ghimire@uconn.edu or call the office at 860-870-6933.

The Vegetable IPM Pest Alert Phoneline

With the start of a new growing season and the return of our Pest Alert messages comes the return of the Vegetable IPM Pest Alert Phoneline. It will be a convenient alternative for folks who prefer an audio version of our weekly message.

These weekly audio reports are updated every Friday. Please save and share this number with local growers that would benefit from listening to phone recordings of our pest alert messages: 860-870-6954.

Thank you for reading!

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

Contact Information

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Vegetable IPM Office: 860-870-6933

Vegetable IPM Pest Alert Audio Recording: 860-870-6954