UConn Extension and Department of Plant Science and Landscape Architecture

CROP TALK

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In This Issue:

Cedar-apple rust gall and spore horns on *Juniperus* spp. Spores released from these structures will serve to infect this disease's alternate fruit-bearing hosts: apple, pear, quince and hawthorn. Photo: Evan Lentz

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Managing Aphids on Vegetable Transplants

Leanne Pundt, UConn Extension

Aphids can be challenging and common pests on vegetable transplants. Peppers are especially prone to aphids, but aphids can also occur on eggplant, Cole crops and leafy greens. It is important to avoid long residual pesticides that would adversely affect aphid parasites and predators that occur naturally in the garden or field. Use of more selective insecticides or preventive use of biological control agents help with this goal. More gardeners are also interested in purchasing organically grown transplants.

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 with curling and twisting of the young leaves. As aphids feed, a sugary plant sap, known as "honeydew," is excreted. As aphid molt, whitish cast skins are left behind.

Figure 1: Clockwise from left: Aphids and their white shed skins, green peach aphids on pepper leaves, and distortion from feeding of foxglove aphids on peppers. Photos by L. Pundt

Biology and Life Cycle of Aphids

Most of the aphids found in greenhouses do not mate. All the aphids' present are females that can give birth to live nymphs. An adult female may live for up to one month. During this time, she may give birth to 60 to 100 live aphid nymphs. Migratory winged aphids may appear suddenly when the colony becomes overcrowded or when the food supply is depleted. Winged aphids may also enter greenhouses from outdoors.

Monitoring

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

Identification

Aphids are small (less than 1/8 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

Proper identification is important to choose the most effective biological control agent. Aphids vary in color depending upon the plants they are feeding on, so do not rely upon color to identify species. See references for more information.

Three of the most common species found in greenhouses include the **green peach aphid** (*Myzus persicae*), 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.
- **Melon aphids** are also less likely to form winged adults and usually stay on the lower leaves and along the plant stem.
- **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 may be hard to find. Because foxglove aphids reproduce faster at 50˚ to 60˚F than at 77˚F, they are more of a problem during cool springs.
- **Potato aphids** tend to be scattered throughout the plant.

Yellow sticky cards will help you detect the entrance of winged aphids into greenhouses from outdoors. But, as most of the aphids in the greenhouse are wingless, focus first on visual monitoring.

Cultural Controls

- Aphid-infested weeds under the benches and just outside the greenhouse are frequently a source of recurring aphid problems. Inspect and remove weeds promptly. Use a weed mat barrier to prevent weed growth under the benches.
- The use of excessive nitrogen promotes lush growth that is favorable to aphid development.
- Remove unsold pet plants that can be sources of aphid infestations.

Biological Controls

Biological controls are best used preventively in conjunction with proper cultural practices.

Aphid Parasitoids

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. Aphid parasitoids are host specific. If you are unsure of the species of aphids you may have or if you have multiple species, mixtures of different aphid parasitoids are commercially available. Parasitoids are shipped as either adults or “aphid mummies” from which the adults emerge.

- *Aphidius* lays its eggs in aphids and the larvae develop within the aphid. The aphid is killed as the developing larvae feed upon it. The swollen exoskeleton of the aphid remains and is referred to as an “aphid mummy.” As the adults emerge from this mummy, you will see the small round exit hole.
- *Aphidius colemani* is a tiny (2 mm.) long wasp that is released against the smaller green peach aphids and melon aphids.
- *Aphidius ervi* attacks larger aphids such as the foxglove (*Aulacorthum solani*) and potato aphids (*Macrosiphum euphorbiae*). It resembles *A. colemani* but is about twice as large and darker in color.

Aphid Predators

Green lacewing (*Chrysoperla rufilabiris* and *C. carnea*) adults are active at night and feed on nectar, pollen, and honeydew. The predatory larvae (also known as “aphid lions”) prefer to feed upon **aphids**, but will also feed upon **whiteflies, spider mites, thrips,** and **caterpillar eggs**.

Green lacewings are sold as eggs on cards, or as larvae shipped with a food source in an inert material in a small container. Larvae may survive better than eggs and are quicker acting. A reduction in aphid population should occur after approximately two weeks.

Ladybird Beetles

Both larvae and adult ladybird beetles feed upon aphid nymphs and adults. Ladybird beetle adults feed upon pollen, fungi, and nectar in the absence of prey. Eggs are laid near prey and the larvae may consume from 500 to 1000 aphids. Older, fourth instar larvae are more efficient at capturing prey than adults.

Convergent ladybird beetles (*Hippodamia convergens*) are wild-collected from the mountainous areas of the west coast where ladybird beetles migrate and aggregate in large masses. This removes ladybeetles from their native habitat. *Adalia bipunctata* (two spotted lady beetle) is commercially reared and available from some biological control suppliers.

Use of selective insecticides

Chemical options for aphids and other pests on **Vegetable transplants**, are listed in the Vegetable Transplant section of the New England Vegetable Management Guide that is available online at: https://nevegetable.org/vegetable-transplant-production.

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Can Biochar be a Sustainable Soil Amendment for Connecticut Farms?

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Biochar is carbon rich organic matter created by burning organic constituents like wood or other biomass waste at high temperatures with limited oxygen, a process called pyrolysis. This process breaks down the organic matter into a stable form of carbon while releasing gases and leaving behind a porous carbon-rich material. The pores within biochar increase its surface area, enabling it to efficiently retain water, nutrients, and act as a habitat for soil microbes. Furthermore, it can absorb and retain various substances, including organic compounds and heavy metals, making it valuable for soil remediation.

Specimens of different biochar materials. (Photo: UC Davis Biochar database)

Because of its fine particle size and porous structure, the application of biochar reduces the bulk density, improving soil structure. It can also help reduce greenhouse gas emissions by trapping carbon in the soil for long periods, thus mitigating climate change. However, potential downsides arise when biochar is applied at high rates: it may absorb nutrients, rendering them unavailable to plants, and interfere with soil macroorganisms, such as earthworms.

Biochar has been known for its benefits for over 2,000 years, dating back to the "slash-and-burn" farming method. It is also created artificially by heating biomass at 600 to 1800°F. Without oxygen, the material doesn't completely burn, resulting in biochar and other by-products. The amount and type of by-products depend on the temperature: lower temperatures yield more solid char material, while higher temperatures (above 1300°F) produce more liquid or gas components.

Commercial biochar production utilizes a wide range of biomasses, encompassing agricultural and forestry residues like wood, straw, wood chips, and nut shells, alongside industrial by-products such as bagasse and paper sludge. This approach not only diminishes waste but also offers an efficient means to repurpose these materials effectively. Choosing the right materials and heating conditions allows us to customize biochar. This makes it better at improving soil or soaking up pollutants, like chemicals and metals, at a low cost.

Recent studies show the effectiveness of biochar and climate-smart agricultural practices in enhancing soil health and reducing greenhouse gas emissions.

Biochar application increases soil organic carbon by 7-40% (Huang et al., 2023) and reduces nitrous oxide emissions by 32–54% across a wide range of biochar application rates (Borchard et al., 2019; Liu et al., 2018).

Studies have shown that the positive impacts of biochar are most pronounced in soils with low organic matter and coarse texture, compared to soils with high organic matter and fine texture.

While cost and accessibility have been the primary barriers to the widespread application of biochar, Connecticut, with over 60% forest cover, has enormous potential. By producing biochar from dead and less desirable wood found in trees, we can utilize it in agricultural lands to enhance soil health and provide climate benefits.

UConn College of Agriculture, Health and Natural Resources is leading a USDA Sustainable Agricultural System (SAS) proposal on biochar. The goal of the proposal is to investigate wood-based biochar applications in agricultural lands to support sustainable and climate-smart agriculture and forest systems in the Northeast. Specific objectives include evaluating the effectiveness of biochar from soil health and climate-smart perspectives as well as training Extension folks, farmers, and forest owners on biochar technology.

We plan to conduct 10 on-farm trials and have already recruited the necessary number of farms. The anticipated outcomes from on-farm trials are to optimize the biochar application rate, assess the impact on soil health, measure greenhouse gas emissions, and model the data obtained from these trials along with other intensive replicated research experiments to develop a decision support tool for extension folks and farmers to use. Thank you to those who have expressed interest to work with us on this project. Stay tuned for more information!

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Spring Fungal Disease Outlook for Fruit Growers

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Spring comes fast every year and with it numerous early season diseases. Warming temperatures and frequent rains provide the necessary conditions for many diseases to thrive. For most diseases, early control measures are essential and provide a degree of protection all season long. It is best to focus your attention on preventative disease control now, rather than playing catch-up later. Below you'll find multiple common fruit diseases and some notes on how to best prevent troublesome early-season infections.

Apple Scab – *Venturia inaequalis*

Figures 1-2. Scab lesions on fruit (left) and leaves (right). Photos: William Turechek, USDA-ARS

Apple scab remains one of the most important tree fruit diseases to manage in the Northeast region, affecting both the leaves and fruit of apple trees. Unmanaged primary infections will cause significant damage, compromising both fruit quality and overall yield. The fungus, *Venturia inaequalis*, overwinters on debris in and around orchards. Primary infections occur in early spring, starting around bud-break. Generally, scab spores mature around the same time that green tissues emerge and will continue to be released until 1-2 weeks post petal-fall. Daytime rains serve to release mature scab spores and provide the wetting period necessary for infection to occur. Symptoms usually take 9-17 days to present, depending on temperature. Primary infection sites produce additional spores (conidia) which kickstart the secondary disease cycle and begin a series of potential secondary infections throughout the summer. This makes control of primary infections critical.

Corrective action decisions for Apple Scab should be based on the forecasting models available to us. The NEWA website has an Apple Scab Forecasting Model that provides insight into potential infection events. Fungicide applications should be timed around these designated infection events.

Specific materials and rates will vary based on mode of action and phenology. For fruit growers in the Northeast region, a typical Apple Scab fungicide program would include (*adapted from the New England Tree Fruit Management Guide*):

1. A dormant to green-tip application of a copper fungicide, which has primary activity against Fireblight.
2. From silver-tip through tight-cluster, a combination of a Captan (FRAC M4) and a Mancozeb (FRAC M3) or other EBDC fungicide is effective in most blocks. For high disease pressure situations, additional materials such as Syllit (FRAC U12), Vangard (FRAC 9), or Scala (FRAC 9) are recommended, but are limited to 2 applications per year.
3. From tight-cluster through pink, the same Captan/EBDC combination works well in low-pressure situations. Since this is the height of primary scab season, even moderate risk situations warrant the use of a multi-site fungicide (either Captan or EBDC) and a single-site fungicide such as Flint (FRAC 11), Sovran (FRAC 11), Fontelis (FRAC 7), Aprovia (FRAC 7), Luna Sensation (FRAC 7+11), Merivon (FRAC7+11), or Luna Tranquility (FRAC 7+9).
4. From petal-fall through first cover, the same Captan/EBDC combination works well in low-pressure situations. Again, higher-risk situations will require the use of a multi-site fungicide (either Captan or EBDC) and a single-site fungicide such as those listed above with the addition of Inspire Super (FRAC 3+9), Indar (FRAC 3), Topguard (FRAC 3), or Rally (FRAC 3).

Remember to always rotate materials. Be sure to check your labels for important information, including annual usage maximums. Orchard sanitation and selection of resistant plant material provide additional options for Apple Scab management. For more information on this disease, including specific recommendations for materials and rates, please consult the New England Tree Fruit Management Guide.

Fabraea Leaf Spot – *Diplocarpon mespili*

Figures 3-4. Fabraea lesions on fruit (left) and leaves (right). Photos: David Rosenberger, Cornell; MAOMG

Fabraea Leaf Spot is a fungal disease affecting both pears and quince. Infections lead to leaf spotting, defoliation, and overall unmarketable fruit. This disease is fairly similar to that of Apple Scab. Fabraea overwinters on debris in the orchard and its spores are released from mid-May to July during rain events. Primary infections sites will begin to present with symptoms about 1 week after initial infection. Secondary infections follow, and a spread readily via wind and rain during the summer months. Wet weather during the summer exacerbates secondary infections.

Again, early season control is essential to curb the impact of secondary infections. EBDC fungicides and Ziram provide the best control. For those of you applying materials to pears for Scab, those materials will likely provide control activity for Fabraea as well, if an EBDC or Ziram is included in the mix. Koverall (FRAC M3) is also rated as having high efficacy.

For more information on this disease, including specific materials and application rates, please consult the New England Tree Fruit Management Guide.

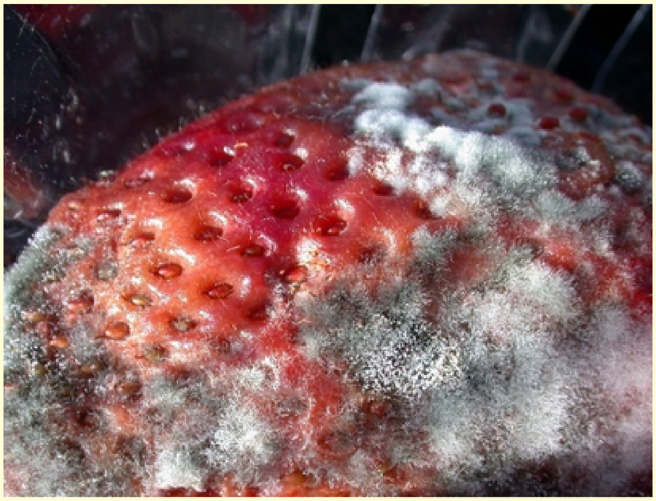
Brown Rot – *Monolinia fruticola*


Figures 5-6. Brown Rot on peach, mummy (left) and stem lesion (right). Photos: NE Tree Fruit Guide

Brown Rot is a fungal pathogen affecting all stone fruit, including peach, nectarine, plum and cherry. The pathogen overwinters on mummies in trees, fallen fruit, and in cankers found on twigs and branches. As always, fungal infection relies on warm temperatures and a wetting period and may present as blossom blight, shoot blight, and/or fruit rot. Infections that occur early in the seasons might not show up until much closer to harvest time. Post-harvest infections are also likely.

Management of this pathogen relies on judicious removal of mummies and twigs affected with cankers. Chemical control should be focused first at bloom time through 3-weeks post-bloom. Materials such as Bravo (FRAC M5), Rally (FRAC 3), Indar (FRAC 3), Orius 20 AQ (FRAC 3), Rovral (FRAC 2), Fontelis (FRAC 7), Elevate (FRAC 17), Luna Sensation (FRAC 7+11), Merivon (FRAC 7+11), Topsin M (FRAC 1), and Captan (FRAC M4) are all rated as having excellent efficacy. Organic options include: Regalia (FRAC P5), Badge X2 (FRAC M1), BotryStop (FRAC NA), and Sterifel Biofungicide (FRAC 44). At 3 weeks prior to harvest, maintain coverage again if we experience wetting periods. More Information can be found in the New England Tree Fruit Management Guide.

Botrytis Blossom Blight/Gray Mold – *Botrytis cinerea*

Figures 6-7. Botrytis on strawberry blossoms and fruit (left); Gray mycelium on strawberry (right). Photos: Maderias – UMass and Wick – UMass.

Botrytis Blossom Blight, also known as Gray Mold, is a prolific fungal disease of strawberries and other fruit crops. This pathogen overwinters in debris on the soil. Its spores are released and spread by wind and rain in the spring. Young tissues, including developing leaves and blossoms, are highly susceptible to infection. During this time, we are most concerned with infection of the king blossoms. King blossoms give us our biggest fruit, without them, our crops can be severely impacted.

Protection against this disease begins with proper spacing during establishment, and diligent renovation practices. Promotion of good air circulation is key which works to reduce extended wetting periods on various plant surfaces and prevents Botrytis spores from germinating. For chemical control, fungicides should be applied during bloom, especially in locations with a history of this disease. Materials such as CaptEvate (FRAC 17+M4), Elevate (FRAC 17), Fontelis (FRAC 7), Inspire Super (FRAC 3+9), Kenja (FRAC 7), Luna Sensation (FRAC 7+11), Luna Tranquility (FRAC 7+9), Pristine (FRAC 7+11), Roval (FRAC 2), Scala (FRAC 9), Switch (FRAC9+12), and Topsin-M (FRAC1) are all rated as having excellent efficacy against Botrytis. More information on the disease and materials rated can be found in the New England Small Fruit Management Guide.

Phomopsis Twig Blight – *Phomopsis vaccinii*

Figures 7-8. Phomopsis Twig blight cankers on blueberry. Photos: Lentz - UConn

Phomopsis Twig Blight is one of the most common blueberry stem cankers and is often mistaken for Fusicoccum. Phomopsis overwinters in old stem cankers from the previous year. Spores are released during rain events in the spring. Mild winters add to the severity of this disease. This disease can be particularly challenging as the pathogen can move from infected shoots, travel down to the crown of the plant, and then move up new uninfected shoots. Mechanical injury and severe weather contribute significantly to the severity of this disease.

Most blueberry cultivars are susceptible to this disease. Cultural management strategies such as judicious pruning, minimizing water stress, and adequate nutrient management can all provide protection against this pathogen. Beyond those, chemical management can begin as early as pre-bud-break with applications of lime-sulfur and copper products as part of dormant or delayed dormant sprays. Fungicide applications can begin in early bloom. Materials such as Indar (FRAC 3), Luna Sensation, (FRAC 7+11), Tilt/Orbit (FRAC 3), Pristine (FRAC 7+11), and Quash (FRAC3) are all rated as having excellent efficacy against this disease. For more information consult the New England Small Fruit Management Guide.

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Soil Steaming for Pest Management

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Photo 1: Soil steaming set up at Fort Hill Farm in New Milford.

Soil steaming has potential for **weed**, **pest**, and **disease control** in treated soils. This technique involves the use of steaming technology to penetrate and heat soil to a desired temperature for partial sterilization. This management technique is not a new concept—it is reported to have been used in the late 1800s in the US—but has seen a resurgence in the recent past as growers consider alternatives to biofumigation (Fennimore et al., 2016). It is a practice that does not require herbicides, insecticides, or fungicides but does require specialized machinery and proper implementation.

This article will detail the implementation of this technique, its benefits and drawbacks, and further resources.

Implementation

The most common and economical type of soil steaming is surface or sheet steaming, which penetrates up to 6 inches of the soil. A soil steamer is used to generate steam and transfer it into the soil through a covered perforated hose. Surface steaming can be used in a greenhouse, high tunnel, or field plot, but is typically implemented within a growing structure.

This method involves multiple steps:

1. Prep the bed or substrate fully prior to treatment
2. Adequately water the bed to 25% soil moisture
3. Lay the perforated hose along the center of the bed
4. Cover with a tarp or adequate material
5. Weigh down all sides without any gaps (many farmers prefer to use heavy chain)
6. Set steamer parameters to reach desired temperature for sufficient amount of time
7. When done, remove all materials from the area
8. Disturb the soil as minimally as possible post-treatment

Temperature and **length** of treatment are two important parameters for successful soil steaming. While there is wide range of temperatures and steaming periods recommended by different researchers, it is accepted that a temperature of 160°F for at least 30 minutes is sufficient to destroy most pathogens and harmful organisms in the soil, and a temperature of up to 182°F for 30 minutes can kill resistant weed seeds (Arancibia, 2020). Growers in our region who have experience with this technique recommend 175°F for 30 min for control of pathogens, viruses, and most weed seeds (Cantelmo, 2020 & Maden, 2020).

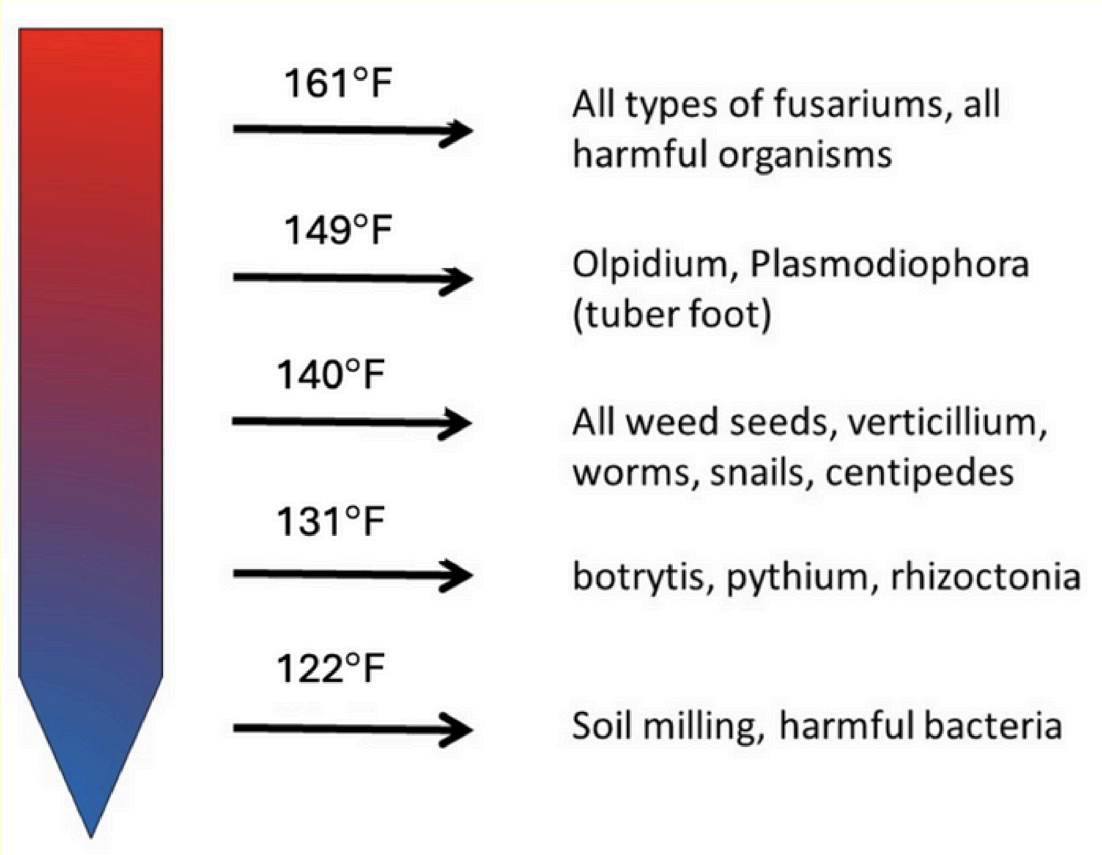

Figure 1: Temperatures needed for eradication of certain organisms. Adapted from: Roel Bijl, Royal Brinkman Knowledge Center (https://royalbrinkman.com/knowledge-center/crop-rotation/steam-soil)

Benefits and drawbacks

Steaming has been found to reduce incidence of plant pathogens in the soil and has shown reduction in weed seeds, plant-parasitic nematodes, and total bacteria. In a trial conducted in 2022, pathogen presence of *Sclerotinia minor* and *Pythium* spp. were found to be reduced in treated soil where lettuce and carrots were grown. The incidence of lettuce drop was reduced as well, and quality of both crops increased after soil steam treatment (Guerra et al., 2022). In another trial from 2020, researchers were able to reduce total nematode concentrations by 93.99% using high temperature steam (Huh et al., 2020). Additionally, nematode populations were almost entirely eliminated after two steam treatments in a separate trial (Dietrich et al., 2020). This could prove useful in effectively controlling harmful nematode populations.

Photo 2: A closer look at the soil steaming technology of this Sioux Steam-Flo model.

Steaming the soil to adequate temperatures for a certain interval has been proven to decrease weed densities, particularly in the control of chickweed in high tunnels for winter greens growing (Cantelmo, 2020, Guerra et al., 2022 & Maden, 2020). Chickweed can become an overwhelming issue in this context, its growth quickly outpacing manual control methods. Growers who implemented soil steaming specifically for winter chickweed control have demonstrated great success and chickweed-free beds without cultivation. For those who do not wish to use herbicides for such control, soil steaming can be an effective alternative.

As expected, steaming can effectively eradicate living organisms at the intended soil depth. This includes any beneficial microbes or organisms too. Stripping the soil of its microbial population could leave growing zones vulnerable to colonization by harmful pathogens (Larson, 2023).

Replenishment of such organisms may be necessary through manual soil application of an inoculant, however there is no empirical evidence to make a formal recommendation.

There is also the question of its impact on **crop yield** and **quality,** particularly through soil nutrient availability. There is mixed evidence as to its impact on nutrient availability, with some nutrient concentrations increasing while others decreased (Dietrich et al., 2020). There is not currently sufficient evidence to prove its impact on these parameters, and further investigation is necessary.

The costs associated with this technology cannot be overlooked. The price of either buying or renting a steaming machine can be substantial, and additional equipment needed increases the total cost. Soil steaming also requires hands-on management, knowledge of equipment operation, maintenance, and manual labor for set up and take down. Fuel consumption is another important factor in implementing this technology and should be considered in the decision-making process.

Photo 3: Uncovering the perforated steam hose revealed the amazing amount of steam being generated beneath the tarp.

Soil steaming shows great promise in effective weed and pathogen control. However, the drawbacks of this method require further exploration. Recommendations for temperature, treatment length, and soil depth must be refined as well. We will continue to investigate this technology with the hopes of producing more in-depth information over this season. **Stay tuned for more!**

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All photos in this article credited to Maggie Ng, UConn Extension

Sweet Corn Pest ID & Trapping

UCONN EXTENSION

Corn earworm

Larvae: 1.5 to 2 inches. Adults: 1.2 to 1.5 inches. Adult moths are light tan with a distinctive dark spot on each forewing, and a dark band near the margin of the hind wing.

European corn borer: IA, NY, Hybrid

Larvae: 3/4 to 1 inches. Adults: 3/4 inches (Female left, male right), light brown in color with lighter bands on the wings.

Fall armyworm

Larvae: 1.5 inches. Adults: 3/4 inches, with mottled brown forewings with a slanting white bar across the wing, and plain light tan hindwings

Photos: J. Obermeyer, Purdue University

Squash vine borer

Larvae: 1 to 1.5 inches long, 3/8 inches wide

Adults: 1 to 1.5 inches

Photos: Ric Bessin, University of Kentucky Entomology and J. Obermeyer, Purdue University

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Installing & Maintaining Pheromone Traps

Replace all pheromone lures every 2 weeks.

Heliothis (white fabric) traps

Corn earworm:

- Place in field at plant height
- Monitor from mid-June, and move to fields with fresh silk

European corn borer:

- E-strain (NY), Z-strain (Iowa), Hybrid strain
- Place along field edges **50 feet apart** at weed height
- Monitor from late May - August

Squash vine borer:

- Place along canopy in squash field
- Monitor from early June - August

Fall armyworm bucket trap

- Place in field at plant height
- Monitor from mid-July - September

Collect trap data once a week to begin. Once you positively identify the target moths, increase counting to every 3 days.

If you have any questions or need help identifying, please contact Shuresh Ghimire at shuresh.ghimire@uconn.edu.

Photos: Tracey Baute (top); Ohio State University Extension (bottom)

Announcements & Events

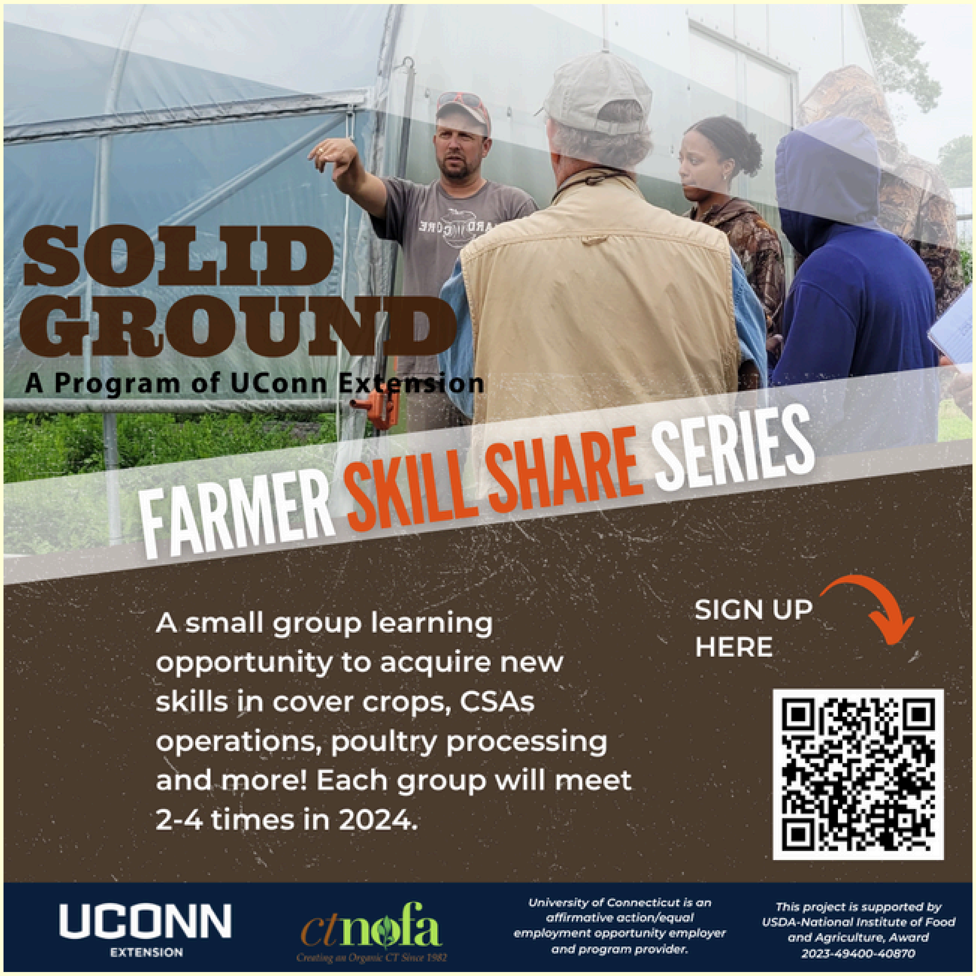
Vegetable IPM Field Workshop – Hold the date!

Trap crop research plots, UConn Plant Science Research Farm. Photo: Bivek Bhusal, UConn

August 1, 2024 3 – 6 pm
UConn Plant Science Research and Education Facility
59 Agronomy Road, Storrs CT

Join UConn Extension Faculty at the Plant Science Research Farm for updates on vegetable IPM and visit ongoing field experiments.

Solid Ground Skill Shares



This growing season, Solid Ground is proud to introduce Skill Shares, a unique opportunity designed specifically for our new and beginning farmer community. These small group learning sessions focus on specific topics identified by farmers themselves, encouraging supportive and practical skill acquisition during the growing season. With a group of 6-10 participants, each Skill Share offers an immersive experience led mostly by experienced farmers and hosted on Connecticut farms.

In 2024, we're focusing on a mix of topics essential to modern farming practices, including Cover Cropping and Crop Rotation, Poultry Processing, Land Evaluation & Farmland Access, Hemp for Fiber Production, Soil Health and Microscopy, as well as CSA Operation and Management. Each Skill Share is structured so participants can learn new skills together over 2-4 sessions

What sets Skill Shares apart is the hands-on approach to learning. Some sessions offer a longitudinal view, allowing participants to witness the evolution of farming practices over time, such as Cover Cropping and Crop Rotation. Others provide a comparative experience, with visits to multiple farms highlighting different approaches to a specific practice, like Poultry Processing.

Regardless of the chosen Skill Share, participants can expect a rich learning experience tailored to their needs and interests. However, due to the limited slots for each Skill Share, we encourage early sign-ups to secure your spot. Notifications regarding acceptance will be sent out in May and June, so don't miss this opportunity to expand your knowledge and skills alongside your fellow farmers. Sign up here: https://solidground.extension.uconn.edu/trainings/

Solid Ground DIY Video Series

Discover a treasure trove of knowledge in the Solid Ground Video Library which boasts over 25 videos tailored for farmers embarking on their own ***Do-It-Yourself Farming*** projects. Available on both YouTube and UConn's video library, Kaltura, these videos cover a spectrum of essential topics, from constructing a coolbot and designing wash stations to transforming small spaces into flourishing growing environments and mastering humane livestock handling techniques.

In each video, our Solid Ground team member, Brittany Hall, takes you to farms across Connecticut, where she delves into the innovative methods employed by fellow farmers to develop infrastructure crucial to their operations. Since each video features a CT beginning farmer, you know the ideas and strategies shared will match the circumstances faced by many in our farming community.

The DIY Farming series includes several videos featuring an Extension Educator who provides expertise on the most essential practices to incorporate into your DIY Farming projects.

So, during these upcoming long days of summer, give these videos a look while you're taking a quick break from the noon day heat. Or give them a watch to unwind at the end of the day and get your gears slowly spinning on the next DIY project you are going to tackle on your farm.

Click here for the video library!

Assessing the Need for Respirator Fit Testing Workshop in Connecticut

Fig. 1 Qualitative respirator fit testing

I am Srikanth Kodati, a Pesticide Safety Educator from the University of Connecticut, reaching out to see if there is a need for our growers to organize a respirator fit testing workshop. As you know, anyone working with pesticides must follow the label and wear required personal protective equipment (PPE) listed on the label. Pesticides that carry a risk of inhalation exposure require the use of respirator. It is recommended that anyone who uses a pesticide that requires respiratory protection have a medical evaluation, fit test, and training before using a respirator.

Below is the link for a very short survey to understand the need for a respirator fit testing workshop in Connecticut, **please provide your response**. Your responses will be very important and valuable.

Click here for the survey!

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