

# CROP TALK

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## UConn

COLLEGE OF AGRICULTURE,  
HEALTH AND NATURAL  
RESOURCES

EXTENSION & PLANT SCIENCE  
AND LANDSCAPE ARCHITECTURE

### COLD DAMAGE ON WARM SEASON CROPS



Tomato seedlings with pale, light brown splotches on the leaves due to cold exposure.

Photo: Spencer Mariotti,  
Bishop's Orchards, Guilford, CT.

Wet conditions and cold weather uncertainty has impacted outdoor planting for farms across the state. Due to last month's temperature fluctuations and several cold nights, many growers reported cold damage on warm season crops hardening off or already in the ground. Reports indicated light-brown leaf splotches and leaf curling. Recent cloudy and cool conditions have also made it difficult for plants to establish robust root systems. This makes it challenging for transplants now that temperatures are swinging up. Stressed plants may have difficulty taking up water on sunny, dry days, creating more potential for die-back and injury. Continue monitoring plants closely. You should begin to see crops stabilize and healthy new growth within five to 10 days.

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Vegetable IPM Field Workshop



# MANAGING STEMPHYLIUM GRAY LEAF SPOT OF TOMATO

By: Shuresh Ghimire, Associate Extension Educator - Vegetable Specialist

Stemphylium gray leaf spot (SGLS) is an increasingly common fungal disease affecting tomato crops across the United States, including in Connecticut. Caused by several species of the genus *Stemphylium*, notably *S. solani*, *S. lycopersici*, and *S. botryosum*, this disease poses a significant threat to tomato foliage, leading to premature defoliation and reduced fruit quality.

## Symptoms and Diagnosis

The disease typically begins with small, brown to black specks on older leaves. These lesions expand into irregularly shaped spots with gray centers and may or may not be surrounded by a yellow halo. As the infection progresses, the centers of the lesions may crack or fall out, leaving holes in the leaves. In humid conditions, gray fungal spores become visible on the lesion surfaces.



Stemphylium Gray Leaf Spot. Early infections appear as brown/tan on both the leaves' upper (left photo by S. Ghimire) and lower sides (right photo by M. Debacco). Lesions are irregular in shape, with or without a yellow halo around them. In the advanced stage of infection, the central area turns gray, and spores are noticeable.

Importantly, SGLS symptoms can resemble other tomato diseases such as Septoria leaf spot and bacterial leaf spot, making accurate diagnosis essential. Microscopic examination is often required to confirm the presence of *Stemphylium* spores.

## Disease Development and Spread

SGLS thrives in warm, humid or wet environments, with an optimal development temperature around 77°F. The fungus can survive on crop debris, be seedborne, and persist on solanaceous weeds like nightshade,



pepper, and eggplant. Spores are dispersed by wind, rain splash, and overhead irrigation. Under favorable conditions, symptoms are often evident within 5 days of infection. The disease may begin by transplanting infected seedlings in the field, or infection may occur after healthy seedlings have been transplanted.

In Connecticut, outbreaks have been linked to hot, humid weather, particularly in high tunnels or greenhouses with poor airflow. In one case, a grower observed symptoms shortly after a tunnel remained sealed for two days during a storm, leading to rapid disease development.

## Management Strategies

Effective management of SGLS requires an integrated approach:

- **Cultural Controls:** Rotate with non-solanaceous crops for 2-3 years. Remove and destroy infected plant debris at the end of the season to reduce inoculum. Improve air circulation through pruning and ventilation, especially in high tunnels.
- **Chemical Controls:** Fungicides such as chlorothalonil (e.g. Bravo), mancozeb (e.g. Manzate Pro-Stick Fungicide), copper-based products (e.g. Nucop), and Zing (chlorothalonil + zoxamide) are labeled for SGLS. Applications should follow label instructions and be timed to coincide with early symptom development. To search for fungicides registered in Connecticut for SGLS, visit <https://www.kellysolutions.com/CT/> > [Pesticide Registration Search](#) > [Search By Multiple Criteria](#). This will take you to a page where you can enter the relevant criteria to generate a list of fungicides



*Connecticut Department of Energy and Environmental Protection - Searchable Databases*

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**Search by Multiple Criteria**

Enter/select a Site(Crop):  [\(open search-window for sites/crops\)](#) and

Enter/select a Pest:  [\(open search-window for pests\)](#) and

Enter/select Ingredient:  [\(open search-window for AI's\)](#) and

Select Pesticide Type:  and

Select Formulation:  and

Restricted Use (RUP) Only ? ☐

(you may leave any of the above options blank to leave them out of the search)  
(if no results are found, use the 'select' functions to make sure that pest, site and AI are spelled accurately)

- **Resistant Varieties:** Some tomato cultivars offer resistance to SGLS. “Mountain Merit” and “Damsel” are two examples. See [Cornell Disease-resistant tomato varieties](#) and search for “gray leaf spot” resistant varieties.

### Contact us with your questions or concerns from the field:

Shuresh Ghimire, Vegetable Extension Specialist: [shuresh.ghimire@uconn.edu](mailto:shuresh.ghimire@uconn.edu)

Nicole Davidow, Vegetable Program Outreach Assistant: [nicole.davidow@uconn.edu](mailto:nicole.davidow@uconn.edu)

Vegetable IPM Cell Phone Number: 959-929-1031 (feel free to text/iMessage photos)

Evan Lentz, Commercial Fruit Production Specialist: [evan.lentz@uconn.edu](mailto:evan.lentz@uconn.edu)

Fruit IPM Program Phone Number: 860-486-6449

# MANAGING FLOOD RISK ON FARMS

By: Shuresh Ghimire, Associate Extension Educator - Extension Vegetable Specialist and Evan Lentz, Assistant Extension Educator - Commercial Fruit Production

This article provides flood related information to Connecticut growers, particularly relevant to those in flood-prone regions. It offers strategies to prepare for, respond to, and recover from flooding events. It covers what actions to take, when to implement them, how to execute them, and why they are essential.



## Increasing flood risks in Connecticut Agriculture

Connecticut has experienced a notable rise in extreme weather events, especially flooding, in recent years. In July 2023, floods led to over \$21 million in sales losses across more than 1,500 acres of farmland. Surveys by the Connecticut Department of Agriculture in 2023 and 2024 estimated weather-related losses exceeding \$50 million.

## Current flood risk outlook for Connecticut

The Northeast U.S. coast has seen a doubling of annual flooding days since 2005, partly due to the weakening of the Atlantic Meridional Overturning Circulation (AMOC), which affects sea level rise and flooding frequency. The region experienced its wettest year on record from July 2023 to June 2024. These trends emphasize the need for proactive flood preparedness.

## Flooding, Hurricane, and Disaster Relief Resources

[CT DoAg's  
Disaster Relief  
Resources Page](#)

[UConn Extension  
Disaster Education  
Network \(EDEN\)](#)

[UConn Extension  
Publications on  
Flooding](#)

[NEWA IPM  
Tools for  
Crop Production](#)

[AgroClimate  
Tools](#)

Subscribe to [UConn Extension](#) and other agricultural service provider listservs for localized updates.



## Key Strategies for flood preparedness

### 1. Monitor weather and flood risks

- Utilize tools like AgroClimate.org for regional climate risk assessments, NEWA (Network for Environmental and Weather Applications) for field-level forecasts and crop models, and the National Weather Service for alerts and flood warnings.
- Early awareness enables timely actions to protect crops, equipment, and infrastructure.

### 2. Assess farm vulnerabilities

- Use historical data, elevation maps, and local knowledge to identify areas most susceptible to flooding. Walk fields after heavy rains to observe pooling or erosion.
- Understanding vulnerable areas helps prioritize interventions and protections.

### 3. Protect equipment and inputs

- When flood risk is forecasted within 24 - 72 hours, relocate machinery, fertilizers, fuels, and pesticides to higher ground or protected structures.
- Preventing contamination and equipment damage avoids costly losses and environmental risks.

### 4. Safeguard crops and soil

- As flood warnings arise or seasonally, harvest market-ready crops ahead of storms, maintain grassy buffers (30+ feet) near water bodies, and use cover crops to prevent erosion in vulnerable fields.
- These practices minimize yield loss, soil degradation, and post-flood contamination.

### 5. Prepare an emergency response plan

- Create a written flood response and recovery plan. Include staff role, communication protocols, evacuation routes, and equipment checklists. Store copies both digitally and in print.
- Clear plans reduce confusion during emergencies and expedite response and recovery.

### 6. Water safety and soil health after flooding

- Once floodwaters receded (at your earliest convenience), test well and irrigation water for pathogens (e.g., *E. coli*) and soil for nutrient levels and potential contaminants before replanting.
- Floodwaters can introduce biological and chemical hazards, making timely testing essential for food safety and crop success.

### 7. Post-flood recovery and compliance

- As soon as damage is assessed, discard produce contacted by floodwaters (as considered adulterated by the FDA), take photos, and keep records for insurance or disaster relief. Read UConn Extension's [Quick Guide to Flood Food Safety for Fruit and Vegetable Growers](#).
- Ensures compliance with food safety regulations and supports financial recovery.

### 8. Pest and disease management after flooding

- Even if plants survive inundation, they may be physiologically stressed and more vulnerable to pests and diseases. Prolonged leaf wetness and high humidity promote foliar fungal and bacterial infections, while saturated soils can increase the prevalence of soil-borne pathogens such as *Pythium*, *Phytophthora*, and *Rhizoctonia*.
- Wet conditions also complicate timely pest management. Frequent rainfall may limit access to fields and reduce pesticide efficacy, as 1 inch of rain is typically sufficient to wash off many foliar-applied products (Blevins, 2018).
- Monitor closely for disease and insect outbreaks post-flood, adjust IPM strategies as needed, and consult extension or crop advisors for treatment plans.

## References

Blevins, D. (2018). Rainfastness of pesticides: What does it mean? Integrated Pest & Crop Management, University of Missouri Extension. Retrieved from [https://ipm.missouri.edu/meg/2018/3/rainfastness\\_pesticides/](https://ipm.missouri.edu/meg/2018/3/rainfastness_pesticides/).

NOAA. (2024). 2024 High Tide Flooding Outlook for the United States. National Ocean Service. <https://tidesandcurrents.noaa.gov>.

# BLUEBERRY PRUNING GUIDE

By: Evan Lentz, Assistant Extension Educator - Commercial Fruit Production

Whether growing blueberries commercially or in a home garden, regular and thoughtful pruning is one of the most important aspects of their cultural management. Well-pruned blueberry bushes will produce high-quality, large berries for decades (Figure 1).

Below is a step-by-step guide to pruning blueberries complete with benefits, details on making cuts, and differences between pruning young and established bushes.

## Benefits of Pruning

- Consistent cropping
- Balance between vegetative and reproductive growth
- Increased plant vigor and overall health
- High quality, large berries
- Increased sunlight penetration
- Increased fruit bud development
- Reduced disease inoculum and overwintering insects
- Reduced disease severity
- Reduced insect pest pressure

## When to Prune

All pruning should be done when the plants are fully dormant in late winter through early spring.



Figure 1. A healthy, well-pruned blueberry bush with an impressive yield of large, high-quality fruit. Photo: Mary Concklin



## Pruning Cuts

There are generally two types of pruning cuts. The first is called a heading cut. A heading cut is defined as a cut that removes a portion of a stem or shoot. The second is called a thinning cut. A thinning cut is defined as a cut that removes an entire stem/shoot down to the base of the plant. For blueberries, thinning cuts are the most important because they encourage new cane development and open the plant up for all of the reasons listed above. Heading cuts should only be used to remove crossing lateral branches after the thinning cuts have been made.



Figure 2A-B. A mature blueberry bush before (left) and after (right) annual pruning. Photos: Mary Concklin



Figure 3. A healthy, mature blueberry bush with many new shoots generating from the crown of the plant and canes of various ages. Photo: Mary Concklin

### In the first two years, remove:

- Flower buds to redirect energy to vegetative growth. *This should be done in year three as well if the bush has not grown well in the first two years.*
- Dead, broken, weak, diseased, low or crossing canes.

### Year three and beyond:

- A mature blueberry plant should have around 18 canes per plant.
- There should be no canes older than 6 years old. After year 6, canes begin to drop in production.
- Aim for 2-3 canes per one year of growth. [3 canes x 6 years = 18 canes per plant]
- Every year:
  - Remove the three oldest canes, AND
  - Remove all but three new vigorous canes to replace the ones you removed
    - If you notice that you do not have good shoots generating from the base of the plant, check the soil pH to make sure it is within range and/or add nitrogen. (Figure 3).

### Rejuvenation/Renewal Pruning:

Sometimes, bushes may become too overgrown or unproductive to selectively thin (Figure 4). In this case, renewal or rejuvenation pruning could help to shock the plant back into good fruit producing conditions.

To renewal prune blueberry bushes, remove at least 1/3, and up to all, of the plant's canes. Make sure that the pH is within acceptable range (4.5-5.0) and fertilize. Once new shoots have regenerated, utilize the above guidelines.

Figure 4. A mature, unmanaged blueberry bush that would benefit from rejuvenation pruning. Photo: Mary Concklin



**SAVE THE DATE**

# **UConn Extension Vegetable & Small Fruit Growers' Conference**

**JANUARY 8, 2026**

**UConn Student Union, Storrs, CT**

Join us for an educational day of learning and updates on the latest trends in vegetable and small fruit production. Trade show will be held throughout conference.



# SOLID GROUND FREE CONSULTATIONS

By: Rebecca Toms, UConn Extension, Food Systems Communications & Outreach Assistant

Most farmers these days carry a cell phone on them—handy for snapping a quick photo of a pest or plant in the field to help you identify it. But identifying it is only step one. Is it a beneficial insect or one that needs managing? Is this plant safe for grazing animals? What does this weed or pest say about my soil health? You could spend hours digging through research to find answers tailored to our state and your growing conditions—but if you're like most growers, time is one thing you don't have in abundance. That's where UConn Extension's Solid Ground Consultations come in: expert advice, personalized to your farm, and completely free.

One farmer shared, **"I like the one-on-one time that the farmer gets, especially for a newer farmer, who doesn't have a mentor—having the time to pick someone's brain was great."**

These consultations connect you with experienced Extension educators who can help solve problems right as they appear—whether it's during a visit to your farm, over a phone call, or even through a video chat. During the season is the best time to get help—when you're seeing the issue in real time, not months later during winter planning. The extra benefit are the potential solutions that can impact the quality or quantity of whatever you're producing for this season.

## The Solid Ground team offers consultations on:

- Vegetable and hemp production
- Livestock care and management
- Soil health and land use
- Conservation strategies
- Urban and micro-farm agriculture
- Branding and marketing
- Selling farm products to schools

Each consultation is tailored to your needs. You'll get actionable recommendations and the chance for follow-up support as you try out new practices or respond to changing conditions. Farmers who used this service reported practical gains—and greater peace of mind.

## Now's the time to take advantage of this resource.

Whether you're seeing new insect pressure, wondering how to improve soil health, or looking for ways to market your harvest, don't go it alone. Let UConn Extension help you find solutions that make sense for your farm.

Request a consultation today: <https://solidground.extension.uconn.edu/consultations/>



**FREE Consultations from SOLID GROUND**  
A Program of UConn Extension

# BASIL DOWNY MILDEW

Online Factsheet Updated By: Nicole Davidow, Vegetable Program Outreach Assistant

Rutgers Cooperative Extension confirmed the presence of basil downy mildew in a greenhouse in central New Jersey in late May. Caused by the oomycete *P. belbahrii*, the pathogen for basil downy mildew cannot survive winter cold. Most commonly, it spreads through wind-borne spores (sporangia) that move north when temperatures warm. Infections are economically significant to basil crops as they render the basil unsuitable for fresh market sale.

## Crop Injury

Symptoms of basil downy mildew are often confused with nutrient deficiency because of the initial yellowing phase. Upon closer examination, you can determine downy mildew is the cause of the chlorosis (yellowing) if the color change is restricted by the veins on the upper surface of the leaf. In some areas of the leaf, you will find the yellowing of the leaf is also followed by the death of the leaf tissue.

Additional symptoms of basil downy mildew include fuzzy looking purple-gray spores that develop on the lower surface of the yellowing leaves. Sometimes the sporulation is fairly pale, while other times it will be dark, looking as if soil has splashed up onto them. Sporulation can also occur on the upper surface of the leaf in more severe cases.

## Disease Transmission

As an obligate parasite, basil downy mildew requires a living host to exist and reproduce. Oospores annually blow north from areas south where basil production is ongoing due to more temperate climates. While the pathogen for basil downy mildew has been found in basil seed, it is far more likely to be transmitted through wind and splashing water.

In prime wet conditions, spores can germinate within two hours and infection of the plant tissue can occur within four hours. If conditions are less favorable, five to 10 days can pass between infection and appearance of symptoms.



Above, the vibrant green of this basil crop has turned yellow, and in certain parts of the field, have leaves have begun to turn brown and died.  
Photo: LIHREC, Cornell University.



*The pathogen that causes basil downy mildew cannot grow past veins. Therefore, the yellowing you see on the top of the basil leaves will be delineated by the leaf veins. Photo: LIHREC, Cornell University*





*Brown/gray sporulation on the underside of the leaves of this basil plant. Photo: Gerald Holmes, Strawberry Center, Cal Poly San Luis Obispo, Bugwood.org*

## Management

### Cultural Practices

- Promote good air circulation by using generous plant spacing and orienting crop rows parallel to the direction of prevailing winds.
- Avoid overhead irrigation or water early in the morning to promote leaf dryness.
- Plant in full sun.
- In greenhouses, reduce humidity by using fans, lights, or raising the temperature.
- Use clean seed. Do not use seed from infected plants.
- Grow less susceptible varieties.

**Sweet basil varieties that had less severe downy mildew in trials include Amazel, Prospera Active, and Rutgers DMR cultivars such as Devotion, Obsession, Passion, and Thunderstruck.**

### Biological and Chemical Controls

To control downy mildew effectively with fungicides, it is considered necessary to start before first symptoms and to make applications frequently. During the past few years, downy mildew has been confirmed in Connecticut in the field by the end of July, and in the greenhouse as early as May. Oxathiapiprolin (Segovis), cyazofamid (Ranman 400SC), potassium salts of phosphorous acid (Fosphite), copper octanoate (Cueva) are labeled among others. For specific product information, visit the New England Vegetable Management Guide for [disease control against basil downy mildew](#).

To decide when to start fungicide applications or to plan early harvests to avoid downy mildew losses, growers should sign up for alerts via the [Basil Ag Pest Monitor](#), monitor the [basil downy mildew map](#), and regularly scout their basil crops for symptoms. The [cucurbit downy mildew forecasting website](#) may also be helpful as both pathogens likely share similar requirements for long-distance wind dispersal (e.g. overcast skies) and infection (e.g. wet leaves or high humidity).

### References

McGrath, M. T. 2022. Basil Downy Mildew: Resistant Variety, Biopesticide, and Fungicide Evaluations. <https://blogs.cornell.edu/livepath/research/basil-downy-mildew/>. Accessed May 23, 2025.

Wyenandt, C. A., J. E. Simon, M. T. McGrath, and D.L. Ward. 2010. Susceptibility of Basil Cultivars and Breeding Lines to Downy Mildew (*Peronospora belbahrii*). HortScience. 45(9): 1416-1419.



## 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

### **Educational Meeting:**

- “Entomopathogenic Nematodes for Plum Curculio Control”, Jaime Pinero – UMass Extension
- “Codling Moth and Oriental Fruit Moth Management”, Ajay Giri – UMass Extension
- “Managing Summer Fruit Rot Diseases in Tree Fruit”, Elizabeth Garafalo – UMass Extension
- “UConn Fruit and IPM Update”, Evan Lentz and Mark Nelson – UConn Extension



## SAVE THE DATE

VEGETABLE IPM  
 FIELD WORKSHOP

**WEDNESDAY**

**JULY 9, 2025**

**RAIN OR SHINE**

**3:30-6:30PM**

UConn Plant Science Research  
 and Education Facility  
 59 Agronomy Road, Storrs, CT

Join UConn Extension Faculty at  
 the Plant Science Research Farm  
 to learn about vegetable pests, get  
 updates from the UConn Plant  
 Diagnostic Lab and tour the  
 vegetable research plots.

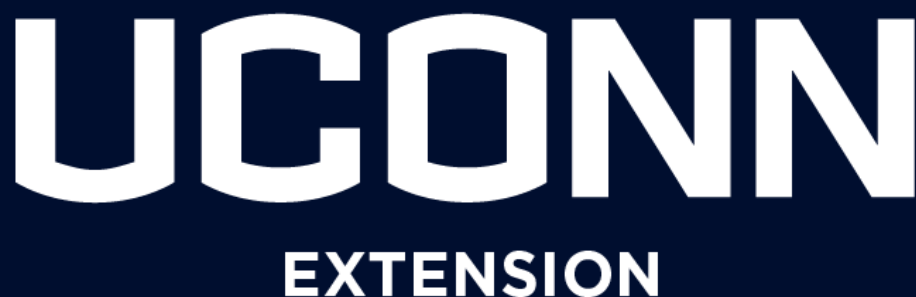


# June 2025 Crop Talk Editors/Contributors

Nicole Davidow, Outreach Assistant, UConn Extension Vegetable IPM Program, [nicole.davidow@uconn.edu](mailto:nicole.davidow@uconn.edu)

Shuresh Ghimire, Commercial Vegetable Crops, UConn Extension, 860-875-3331, [shuresh.ghimire@uconn.edu](mailto:shuresh.ghimire@uconn.edu)

Evan Lentz, Fruit Production and IPM, UConn Extension, 860-486-6449, [evan.lentz@uconn.edu](mailto:evan.lentz@uconn.edu)  
[ipm.cahnr.uconn.edu](http://ipm.cahnr.uconn.edu)



## Administrative Officers

Indrajeet Chaubey, Dean, College of Agriculture, Health, and Natural Resources

Amy Harder, Associate Dean and Associate Director, UConn Extension

Bonnie E. Burr, Assistant Director & Department Head, UConn Extension

Sydney Everhart, Department Head, Department of Plant Science and Landscape Architecture

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