

## Vegetable Pest Alert

Sept 16, 2022

### Preparing for cold

Most cool season crops will tolerate temperatures as low as 28 °F. Cooler temperatures actually enhance the flavor of many cool season crops. Kale, collards, cabbage, Brussels sprouts, spinach, Swiss chard, carrots, onions, garlic, and leeks, are among the hardiest of cool season crops. However, warm season crops such as tomato, pepper, eggplant, squash can be injured when temperatures are below 36 °F. Cold temperatures or frost can damage the surface of fruit vegetables. Light weight covers offer a few degrees of protection while the heavier grades protect plants from lower temperatures. PVC plumbing tubing or metal electrical conduit bent over beds can be used to make hoops.

Pumpkins and winter squash are very chilling sensitive when exposed to temperatures below 50 °F. Research at Oregon State University showed that winter squash stored at 50-59 °F, 90%, 70% and 50% were marketable after 9, 15 and 20 weeks, respectively. Green rind squashes should be stored at 50-55 °F because 59°F or higher temperature may cause degreening, undesirable yellowing, and texture loss. High storage temperature (>59°F) will result in excessive weight loss, color loss and poor eating quality. In a study, the best temperature for butternut squash storage for 7 months was 59 °F. Besides weight loss and browning and drying of damage areas, higher storage temperatures also lead to more rapid breakdown of pulp tissue. 50-70% relative humidity with good ventilation is essential for optimum storage. High humidity will promote decay. Although 50-70% R.H. will reduce decay during storage, significant weight loss will occur. For example, mature Kabocha squash lose 1.0 and 1.5% of their fresh weight per week of storage at 59 °F and 68 °F, respectively. Weight loss of butternut squash stored at 55 °F and 68 °F is 2.5% and 5.5% per month, respectively.

### End of summer season reminders

- Field clean-up for pest management: At the end of the season, field clean-up and removal of crop debris are important tasks that will help reduce diseases and insect carrier over to the subsequent season. There are many pests of vegetable crops that can overwinter in New England. [This article \(see page 3-6\)](#) published in Crop Talk has a table describing overwintering stage and recommendations focused on cultural control of major insect pests of vegetable crops.

- Cover crops: A fundamental goal of cover cropping is to avoid bare soil between cash crop plantings. This not only protects soil, but captures sunlight and produces biomass that enhances soil quality. Other benefits include improved trafficability of fields and reduced compaction, enhance aesthetics, and potential for animal feed production. See <https://nevegetable.org/cultural-practices/cover-crops-and-green-manures> to get information about late summer-seeded and fall-seeded cover crops.
- Soil test: This is also a good time of year to perform soil tests on your fields. It provides you time to add lime if needed and be ready for spring fertilizer bulk orders. Instructions to collect soil samples and other relevant resources are available at <https://soiltesting.cahnr.uconn.edu/sampling/>.

### **Allium leafminer**

Be on the lookout for Allium leafminer in leek fields, the fall flight is starting now. Recommended insecticide options include Exirel or Radiant for conventional growers and Entrust + insecticidal soap (e.g. M-Pede) is recommended for organic growers. Row covers applied before the flight starts can prevent damage as long as covers are solidly in place before the flies are active.



Allium (onion) leafminer (Photos: Gerald Brust, Univ. of Maryland Extension (*left*) and Ethan Grundberg, Cornell Cooperative Extension (*right*))

**Alternaria leaf spot** is showing up on fall brassica crops. Diseased crop debris is the primary site of survival from year to year. The diseases are favored by wide temperature range (60-78° F) and at least 12 hours of relative humidity of 90 % or more. The fungi sporulate profusely and are spread throughout fields by wind, splashing water, equipment, and workers. The main means of introduction into new areas is on infested seed.



*Alternaria leaf spot on broccoli  
(photo: Cornell Univ).*

Start with certified disease-free seed, or treat seed with hot water. Practice a 3-year crop rotation with all brassica crops. Take measures to decrease the amount of time that leaves are wet: increase row and

plant spacing to improve air circulation and irrigate with overhead irrigation early in the mornings on sunny days or use drip irrigation instead of overhead irrigation. Control brassica weeds. Avoid working in fields when foliage is wet. Promptly incorporate plant debris after harvest, or mow if tillage is not possible in late fall crops. Differences in variety susceptibility exist but no resistant varieties are available. Cornell has prepared a fungicide cheat sheet for this disease from 2022 research findings:

[https://rvpadmin.cce.cornell.edu/uploads/doc\\_1029.pdf](https://rvpadmin.cce.cornell.edu/uploads/doc_1029.pdf)

### **Vegetable Twilight Meeting at Cold Spring Brook Farm, Berlin, CT**

When: Wednesday, September 21, 2022- 5:00 pm

Event type: In-person

Where: Cold Spring Brook Farm, 979 Deming Rd, Berlin, CT 06037

Price: Free

RSVP required for head count for pizza and refreshment. Please email

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Eric Peterson and Steve Bengtson at Cold Spring Brook Farm will host us for a twilight meeting on high tunnel fertility management and biodegradable plastic mulch.

Dr. Rebecca Brown, professor in the Department of Plant Sciences and Entomology at the University of Rhode Island, will join us to talk about optimization of fertility and cultivar selection for high tunnels, with particular emphasis on management of heat

stress. Field culture methods can be used to grow tomatoes in high tunnels, but often fail to maximize the potential of high value tunnel space.

Dr. Josef Görres, Associate Professor and soil scientist at the University of Vermont will join us to talk about modeling effort to understand the cycling, mineralization, and movement of nitrogen and phosphorus in high tunnel soils. Dr. will Görres will evaluate a couple of scenarios with the model. Cold Spring Brook Farm is one of five participating farms where we have been tracking nutrient dynamics in high tunnel soil for three years now.

Dr. Shuresh Ghimire, Extension Vegetable Specialist at UConn Extension will provide an update on the use of biodegradable plastic mulch for vegetable production and will showcase a demonstration plot of biodegradable plastic mulch at the farm where tomatoes are being grown.

*This report is prepared by Shuresh Ghimire, UConn Extension. The information in this document is for educational purposes only. The recommendations contained are based on the best available knowledge at the time of publication. Any reference to commercial products, trade or brand names is for information only, and no endorsement or approval is intended. UConn Extension does not guarantee or warrant the standard of any product referenced or imply approval of the product to the exclusion of others which also may be available. The University of Connecticut, UConn Extension, College of Agriculture, Health and Natural Resources is an equal opportunity program provider and employer.*