

UCONN EXTENSION

Welcome to this week's pest alert!

What to be on the lookout for...

BRASSICA FLEA BEETLE

Adults spend the winter outside the field, in shrubby or woody borders, and move into fields in May and begin feeding and mating. Eggs are laid in soil near the plant. Larvae feed on root hairs and pupate underground. While new adults emerge in late July or early August and feed throughout August, spring crops are damaged by over-wintered adults, while fall crops are damaged by summer adults.

Crops with more waxy leaves (Brassica oleracea such as cabbage, broccoli, and kale) are less attractive and feeding is more restricted to leaf margins, especially as crop matures. Crops with glossy leaves (e.g. B. rapa such bok choy, Napa cabbage, or B. juncea such as mustard) are highly attractive; the whole leaf is damaged and the crop is susceptible until harvest.



Photo 2: Brassica flea beetles damage without row cover (left) and with a row cover (right). Photos: S. Ghimire

Escape peak adult activity and avoid the buildup of high populations by rotating spring crops as far as possible from last season's fall brassica crops, and planting late-season

crops far from early brassicas. Use attractive brassica types (B. rapa or B. juncea) on borders or within the field as a trap crop to draw beetles from less attractive types. Spray the trap crop to suppress beetles in the whole field, and to protect the trap crop for harvest. Scout across the field by counting beetles from above, then under the leaves, and estimating % leaf damage. Because brassica crops differ greatly in susceptibility and attractiveness there is no fixed economic threshold that applies to all crops and crop stages. A working threshold of 1 beetle per plant or >10% average leaf damage on 50% of the plants has proved effective in leafy greens and early stages of heading brassicas. Repeated applications may be needed if pressure is high.

Row cover provides great protection! For spray options, see <u>https://nevegetable.org/crops/insect-control-3</u>.

WHITE GRUB

White grub is a larva of a scarab beetle, is white with a C-shaped body, brown head, and three pairs of legs. The hind portion of the abdomen is slightly enlarged and appears darker.

In late fall grubs migrate downward through the soil profile, staying below the frost line throughout the winter. In the spring as the soils warm up, the grubs move back into the root zone and resume feeding. By the middle of June, most grubs have completed their feeding requirements and pupate (still in the soil) for about a week before emerging as new young adults.

Insecticides may be needed to control adult beetles if numbers are high and damage is significant. The New England Vegetable Management Guide (<u>https://nevegetable.org/</u>) lists products for this pest in asparagus, basil, okra, and sweet corn. For controls in other crops, check the label of commonly used broad spectrum synthetic pyrethroids, carbamates, and neonicotinoids. Organic options include entomopathogenic fungus such as *Isaria fumosorosea* Apopka Strain 97 (e.g., PFR-97, Preferal), beneficial nematodes such as *Steinernema* and *Heterorhabditis* species.



Photo 1: Root feeding damaged on cabbage by ants (top), white grub damage on a lettuce plant (bottom). Photos: S. Ghimire

On–farm soil steaming demonstration for high tunnels

Soil steaming is a technique that uses steam to prepare soil for planting in high tunnels, greenhouses, and open fields. It involves injecting steam through a perforated hose into the soil surface that is shielded by a plastic sheet. Soil steaming can help rid of pathogens, weed seeds, nematodes, and other harmful organisms. Why, how, costs and benefits associated with soil steaming will be discussed!

Andre Cantelmo Heron Pond Farm, South Hampton, NH

Presenters

Paul Bucciaglia Fort Hill Farm, New Milford, CT

Register here!

s.uconn.edu/soilsteaming

Register by **April 26.** Free to attend, but please register for planning purposes

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Thanks for reading, and happy planting!

TUESDAY <u>APRIL 30, 20</u>24

1 - 3 PM

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.

Contact us!

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Where?

Fort Hill Farm

18 Fort Hill Rd, New Milford, CT 06776 Refreshments provided

Questions?

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