

June 4, 2022

**Brassica caterpillar pests:** Be on the lookout for Caterpillars of imported cabbageworm (ICW) and diamond back moth (DBM).



ICW (left) and DBM (right) larvae (photos: S. Ghimire)

Damage of ICW includes round or ragged feeding holes and deposits of wet, green or brownish frass. DBM when disturbed, wiggle vigorously and may drop off the plant on a string of silk. DBM feeding causes small, round holes and tends to be spread across the foliage rather than concentrated in the head.

Scout fields by checking leaves (top and bottom) on 25 plants across the field. Treat plants between the start of heading and harvest if 20% or more of the plants are infested. The most critical time to scout and apply chemical controls is just prior to head formation. Use a 10% to 15% threshold throughout the season for kale, collards, mustard, and other leafy greens.

Parasitic wasps that attack caterpillars include *Cotesia rubecula* on ICW and *Diadegma insulare* on DBM; their small white cocoons may be found on leaves. DBM has become resistant to many synthetic and microbial insecticides. Even if you are getting excellent control of this pest with the materials presently being used, you should alternate between effective materials to retard development of resistance. Newer materials and the aizawai strain of *Bacillus thuringiensis* will usually provide better control of resistant DBM than older products. See <http://nevegetable.org/crops/insect-control-3> for spray options.

**European corn borer (ECB)** is a resident pest for us. Sweet corn is one of over 200 crop and weed host plants of this pest; other vegetable crops affected include pepper, bean, and potato. Larvae overwinter in stalks of corn and other host plants and pupate in the spring. Adult moths have started to emerge. Growing degree days (GDD) with a base temperature of 50°F may be used to predict the beginning of moth flight (374 GDD), first eggs (450 GDD), and peak flight (631 GDD). As of yesterday, June 3, GDD accumulation was 574 (base 50 °F) in Danbury and 352 GDD in Storrs, CT. ([Degree-day-calculator](#))

ECB flight can be monitored with 3 Scentry Heliiothis net traps baited with either a New York E, Iowa Z, or hybrid lure, placed at least 50' apart in weedy borders of corn fields with the bottom at weed height. The third type, hybrid ECB has been captured in NY in the last couple of years. So, growers in CT should also monitor this pest. Once flight is detected, corn with newly emerging tassels should be scouted weekly for the presence of ECB larvae by inspecting the tassels of 50 to 100 plants, in groups of 5 to 20 plants throughout the field. Treat if more than 15% of the plants have one or more larvae present.

This week 3 ECB NY (E) moths were captured in a trap set in Fairfield County CT.

**Various causes of leaf distortion in tomatoes and other vegetable crops:**

Curling or distortion of leaves can be caused by various factors such as moistures or heat (physiological) stress, viral infection, insects, mites, or herbicide injury. Correct diagnosis is critical for successful management.

**Physiological leaf roll** from excessive moisture and nitrogen, several pruning, root damage or transplant shock are usually apparent in the lower leaves with an upward cupping of leaflets. Usually, this condition has minimal impact on plant growth and fruit production.

**Herbicide injury:** When tomato plants are exposed to the herbicide 2,4-D, typical symptoms include downward rolling of leaves and twisted growth. In addition, stems may turn white and split; fruit may be deformed. Whereas glyphosate injury causes yellow to white coloring of the growing point area.



Physiological leaf roll



2,4 D injury on tomato plants (photo: Emma Lookabaugh)



Tomato plant showing typical glyphosate injury of the yellow to white coloring of the growing point area.

**Viral infection:**

There are several viral diseases that can infect tomato plants. The symptoms may include mottled light and dark green on leaves. Leaves may be curled, malformed, or reduced in size. If plants are infected early, they may appear yellow and stunted overall.



Potato Virus Y (PVY) on tomatoes.



Tomato Spotted Wilt Virus (TSWV) symptoms include necrotic spots on the upper sides of young leaves – Cornell University.

Broad mite damage: Early feeding is mainly concentrated near the growing point on the underside of a leaf near the stalk, which tends to cause the leaf to curl and become twisted and distorted.



Leaves of tomato twisted and deformed by broad mite feeding.

**Continue to be on the lookout for**

- Colorado potato beetle
- Solanaceous flea beetle
- Brassica flea beetle
- Onion thrips
- Striped cucumber beetles
- Beet and spinach leafminer
- Allium leafminer

*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.*

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