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What to be on the lookout for...

**Fusarium wilt, crown and root rot in asparagus**



Symptoms include wilting, brown lesions that girdle the stem at the soil line, vascular discoloration/rot, and root discoloration/rot. Fusarium enters the plant through young feeder roots, spread throughout the root and crown regions, and eventually weaken and kill the plant.

Low soil pH and poor drainage favor Fusarium. So, keep the soil pH in the range of 6.8-7 and improve drainage if possible. Remove and destroy the diseased plant materials and do not compost them. While there are some fungicides (mancozeb) labeled for this disease control, their efficacy is unreliable.

## Internal blossom end rot of tomato fruit

Blossom end rot often occurs on the first fruits formed on plants. Initially, water-soaked spots (resembling small bruises) appear, most often on the bottoms of fruits. On peppers these spots can resemble sunscald and can form on the sides of the fruits near the blossom end. Spots enlarge, becoming dark brown to black, sunken and leathery. **Sometimes, when a fruit is cut, the exterior will be sound, but the interior will be discolored and shrunken** as in the picture below. Often, bacteria and fungi invade the discolored areas, leading to further tissue decay.



*Internal blossom end rot of tomato, photo courtesy of Michaele Williams, Bishops Orchards, Guilford, CT*

Blossom end rot is caused by calcium deficiency in the fruit which may be due to low calcium levels in the soil, however more often there is plenty of calcium in the soil, but its availability for uptake and transport to fruits is impaired. Drought stress, alternating soil moisture extremes, and damage to a plant's roots all can inhibit calcium uptake, as can waterlogged or cold soils, and high concentrations of ammonium, potassium, and magnesium in soil. Movement of calcium within plants depends on active transpiration. Because leaves transpire more than fruits, calcium moves more easily into leaves where it remains. Calcium is **not** later redistributed from leaves to fruits. This

preferential distribution of calcium to leaves can be made worse by over-fertilizing with nitrogen which promotes excessive production of leaves. In addition, high relative humidity OR low relative humidity in combination with hot, windy weather can limit transpiration, thus preventing calcium from reaching fruits.

### Brassica flea beetles



*Flea beetle damage on broccolini. Photo courtesy of Susan Mitchell, Cloverleigh Farm, Columbia, CT*

Summer adult brassica flea beetles are hammering the uncovered fall brassica crops. Feeding generally declines in September as adults leave fields for overwintering. There may be a small second generation of adults, which emerges in late September. Heavy feeding can kill seedlings, and moderate damage can stunt growth, delay maturity, reduce yield, and make crops unmarketable.

Be sure to protect direct-seeded crops and young transplants with a row cover or chemical control. Non-waxy brassica crops (preferred by flea beetles) can be planted alongside waxy brassicas and sprayed regularly to function as a trap crop and reduce sprays to less preferred crops. A complete list of labeled products can be found in the [New England Vegetable Management Guide](#). Spinosad (e.g. Entrust) is the most effective OMRI-listed material. Kaolin clay (e.g. Surround) will protect young transplants but needs to be frequently reapplied to cover new growth and will wash off in rain.

## Sweet corn pests:

### Fall armyworm

Watch out for fall armyworm in whorl stage and emerging tassel stage corn. 1 FAW moth was captured this week in Berlin; and 4 FAW moths in Glastonbury. In whorl stage corn, caterpillars produce ragged feeding damage to leaves and masses of sawdust-like excrement.

Scout whorl and emerging tassel stage corn by checking 100 plants in groups of 10 or 20 in a V or X pattern across the field. Avoid checking only field edges and select plants randomly, not only where you can see damage. A plant is 'infested' if at least one caterpillar is found. If feeding damage is old and no larva is found, the caterpillar may have left the plant to pupate in the soil. A control is needed if 15% or more of plants are infested with FAW.

In emerging tassels, combine counts for ECB and FAW. For example, if 10% of plants have FAW and 12% have ECB, the combined infestation is 22%, above the 15% threshold.

University of Delaware recently evaluated a non-replicated trial and found Avaunt and Intrepid Edge were the best at reducing Fall armyworm, followed by Besiege, and last by Lannate + Warrior. See <https://nevegetable.org/crops/insect-control-6> for more spray options.

### Corn earworm

Trap capture was 8.33 moths/night this week in a farm in Berlin; 0.57 moths/night in Glasstonbury, 0 to 12/night in Shelton; 0.29 in Lebanon.

Table. Spray Intervals for Corn Earworm based on moth captures in Heliothis net traps.

Moths/Night	Moths/Week	Spray Interval
0 - 0.2	0 - 1.4	no spray
0.2 - 0.5	1.4 - 3.5	6 days
0.5 - 1	3.5 - 7	5 days
1 - 13	7 - 91	4 days
Over 13	Over 91	3 days

Baythroid XL and Besiege have found to be effective in controlling CEW. Pyrethroids should not be relied upon by themselves for ear protection because of pyrethroid resistance. They can be mixed with spinosads. See <https://nevegetable.org/crops/insect-control-6> for other spray options.

### European corn borers

ECB are continuing to be trapped, but in low numbers (1 NY strain moth/trap/week in Berlin and 4% damage in the field for ECB and FAW combined (threshold is 15%); 0 in Glastonbury; and 3 in Shelton).

**Continue to be on the lookout for**

- Cucurbit downy mildew on cucumber and cantaloupe
- Plectosporium blight of cucurbit
- Phytophthora in cucurbits and peppers
- Squash vine borers (0/week in Glastonbury; 2/week in Berlin; 3 in Lebanon)
- Cucurbit powdery mildew
- Verticillium wilt in eggplant and tomatoes
- Black rot of brassica
- Caterpillar pests of brassica (cross-striped cabbageworm, diamondback moth)
- Cercospora leaf spot of beet
- Pepper maggot
- Leaf mold in tunnel tomatoes
- Early blight of tomatoes and potatoes

**2024 New England Vegetable & Fruit Conference**

December 17, 18, 19, 2024

Manchester,  
New Hampshire  
at the DoubleTree by Hilton Downtown

Conference website:  
<https://newenglandvfc.org/>



***Thanks for reading!***

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**Contact us with any vegetable production related questions!**

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