

# Pest Update

## Pest Alerts, 7/30/2015

Vegetable scouting sheets can be found on the UMass Extension Vegetable Program website. When not given here, refer to the New England Vegetable Management Guide for scouting thresholds and treatment options.

Allium: Onion thrips were above threshold on onions on black plastic this week next to a field of onions in bare ground that were well below threshold. Earlier in the season, thrips pressure was reversed with greater pressure in the bare ground crop. The whole field has been treated the same all season with organic materials including Entrust applied at a threshold of 1 thrips per leaf. If your crop is above threshold, consider treating now even if onion tops are starting to die back since thrips can harbor and transfer bacterial and some fungal diseases that will impact storage quality of onions. Purple Blotch was confirmed on onions at low levels in Hampshire and Bristol Cos., MA. Serenade has shown efficacy in reducing disease spread when used preventively. A spreader sticker is recommended, as many materials will not stick well to onion leaves. Downy mildew was confirmed on one yellow storage onion variety this week. Symptoms were yellowed or straw-colored leaves with light gray furry sporulation, typical of downy mildews. There also were some lens-shaped or oval lesions and leaves were girdled and collapsed in the region where the mildew developed (see photo). Leek Moth continues to cause damage in northern VT. This pest is moving around the state. It has 2 generations per year and the 2nd generation can cause bulb damage. Look for feeding on foliage with transparent window-paning and larvae inside the leaf.



**Onion downy mildew**

Basil Downy Mildew (BDM) was confirmed in Hampshire Co., MA this week in a U-Pick field. Elsewhere on the farm, the tolerant variety Eleanora is still BDM free. However, in Washington Co., RI, crops of Eleanora and Thai Basil were confirmed to have BDM.



Thai Basil with Downy Mildew photo: A. Radin, URI

Brassica: Cabbage aphid is beginning to appear in more fall brassica fields this week (in Franklin, Worcester and Hampshire Cos., MA and in Washington Co., RI). Spraying with insecticidal soap can be effective if started early—drop nozzles can help with better targeting the undersides of leaves or buds. Black rot was confirmed on kale several weeks ago in Chittenden CO., VT and on Napa Cabbage in NH this week. Weather conditions are becoming favorable for this disease. Promptly incorporate crop residues after harvest to speed decomposition. Practice a three year rotation and control cruciferous weeds.

Sweet Corn: During silking stage, trap captures of 12 or more European corn borers is the threshold for initiating weekly sprays, and these should be made until 5 days before harvest. Only one location in our trapping network, South Deerfield, MA is over threshold. However, in fields where trap captures are lower, scouts have seen damage and infestation over 15%. Therefore it is important this time of year to scout your crop in addition to checking trap captures. Lures for ECB NY and IA were tested in a wind tunnel at Cornell last week with live moths and results show they are still highly effective. There should be no concern that lures are not working. One outlier trap in NY captured a total of 159 ECB in one trap this week! Many ECB traps are now capturing gypsy moths; do not be alarmed as they are not a corn pest. Corn earworm moths are being captured where traps are up, but mostly at low numbers, so CEW is not driving sprays. Fall armyworm traps were set out yesterday in Chittenden CO., VT. In NH and MA, FAW moths were trapped with a high of 22 moths in one trap in South Deerfield, MA. The main pest

alert message for corn this week is to SCOUT YOUR CROP; use the scouting forms found here. In whorl stage, treat if 15% are infested with FAW. In emerging tassels to silk stage, 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. Sap beetle presence and damage have been reported in Worcester and Hampshire Cos., MA and in Chittenden Co., VT. Usually a secondary pest in corn, sap beetles are being found in otherwise uninfested ears, and can be a problem in some fields. Adults lay eggs in the silk and larvae feed on kernels, making the ears unmarketable or a surprise for customers. Varieties with exposed tips or in super sweet or Bt varieties (which may not be sprayed for other insect pests) are hardest hit.

Cucurbit: Phytophthora blight was confirmed on summer squash in Hampshire Co., MA this week in a field that had standing water for almost 2 weeks after heavy rains earlier this month. Symptoms first appeared 2 weeks ago. Stop harvesting from areas of the farm with Phytophthora and turn the residue under deeply to reduce potential for spread of inoculum. Work in these fields last, and be sure to clean boots and equipment before traveling to other fields. Squash vine borer trap catches are dropping in many locations, but a second generation is expected. We are at a high risk for spread of cucurbit downy mildew because of lines of thunderstorms. All cucurbits should be protected but cucumber, watermelon, cantaloupe, butternut, and giant pumpkins are of greatest priority. Powdery mildew is worsening on older successions of summer squash, zucchini and cucumber in organically and conventionally managed fields. Treat when 1 leaf out of 50 scouted has powdery mildew with conventional materials, and perhaps at a lower threshold with a material such as Milstop or M-pede in organically managed fields. Protect earlier successions now. Squash bug egg masses and nymphs are being found in large numbers in Chittenden Co., VT and Hampshire Co., MA.

Solanaceous: Late blight still has not been confirmed in Massachusetts! Track the disease here: [www.usablight.org](http://www.usablight.org) and continue following a preventive control strategy based on the Late Blight Decision Support System for MA here: [blight.eas.cornell.edu/blight/ma](http://blight.eas.cornell.edu/blight/ma). Septoria leaf spot has 'blossomed' in NH, Washington Co., RI and Bristol Co., MA. Gray mold was observed in field tomatoes in Bristol Co., MA, causing dark gray leaf spots reminiscent of late blight. See article in this issue for pictures and scouting tips so you don't get fooled! Green peach and potato aphids found but also high numbers of predatory lacewing larvae in a field in Chittenden Co., VT. Tomato russet mites are not common in New England, but have been found in damaging numbers in a research high tunnel in Washington Co., RI. Bacterial leaf spot was diagnosed on pepper in Hampshire Co, MA and Washington Co., RI. Copper is an effective material to keep this disease from spreading throughout the field in this humid weather. Verticillium wilt, hopper burn, flea beetle, and early blight were all confirmed on one sad eggplant crop in Washington Co., RI (see photo)



**Bacterial leaf spot on pepper** Photo: A. Radin, URI



**Eggplant with verticillium, flea beetle, hopper burn, and early blight** Photo: A. Radin, URI

Multiple: Potato leafhopper burn is severe in many New England locations. Mow tops on older plantings where harvests have begun or are about to and treat foliage of storage varieties to keep them photosynthesizing and allowing the tubers to size up.