THE UNIVERSITY OF RHODE ISLAND COOPERATIVE EXTENSION

Pest Update

Pest Alerts, 8/6/2015

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: Onions are at or close to harvest, and now is the time to inspect the crop for storage quality; see article this issue on harvesting and storing onions. **Onion thrips** pressure continues to be high, especially in untreated fields in MA, RI, and VT. Only treat for this pest if you will not be harvesting in the next week. **Bacterial disease** and neck rots are common in VT and MA fields scouted. If these symptoms are present in the field, harvest early and cut the necks in order to cure these onions more quickly, cutting off the water supply potentially carrying bacteria down the neck. During harvest, separate onions with these leaf symptoms and sell for fresh market or as seconds rather than putting them in storage. **Leek moth:** All plants in a field scouted in Chittenden CO., VT scouted had an average of one pupa per plant and only 3 active larvae were found. It is likely that the end of the first generation is occurring now in VT. The second generation is a threat to leeks and fall bulbs.

Brassica: **Cabbage aphid** winged adults and nymphs were observed in Franklin, Hampshire (large infestations), and Worcester Cos., MA this week. Cabbage aphids can build up in greenhouses, on long-season crops like Brussels sprouts, or later in the season under row covers of fall brassicas. Monitor for winged adults flying into your fields with yellow sticky cards. This pest is arriving earlier in the season in MA fields, likely due to increased production of overwintered brassica hosts in tunnels. Spraying oil or soap (but not both) preventively can reduce impact on yield and quality, but be careful in this heat to avoid phytotoxicity. For organic growers, when infestations are greater than 10% of a field, apply materials containing neem or azidirachtin and pyganic. Include an adjuvant such as NuFilm P for better coverage. Conventional growers have not reported severe outbreaks of this pest so far this year. In Washington Co., RI fields scouted were over threshold for **diamondback moth** and **imported cabbage worm** caterpillars in Brussels sprouts, and in Chittenden Co., VT more diamondback moth pupae were present than larvae. **Brassica downy mildew** was confirmed on 'Arcadia' broccoli in seedlings in the greenhouse, this disease often begins to show up this time of year. Initial symptoms are irregular splotches of yellow with black lines or mottling throughout, later on leaves may become tan and papery and die. Unlike other downy mildews, this pathogen (*Hyaloperonospora parasitica*) can be seed-borne, and can overwinter in soil, residue, or weeds. Consult the New England Vegetable management guide for spray recommendations.


Brassica downy mildew

Sweet Corn: **European corn borer** trap captures and field infestations are lower this week in MA, NH and RI; however, Burlington, VT captured 41 ECB in one field this week. Growers in NH have reported breakdown of control using Warrior (synthetic pyrethroid), other materials showing good to excellent efficacy include: **Radiant** (spinetoram), consistently equivalent efficacy with Warrior in trials - highly effective; **Belt** (flubendiamide), equivalent efficacy to Warrior in some trials, slightly less in others; **Coragen** (chlorantraniliprole), slightly less effective on corn earworm than Warrior but easier on beneficials and people; **Besiege** (a mixture of Coragen + Warrior AI's, each at lower rates), highly effective, often better than Warrior. **Corn earworm** moths are being captured at low numbers except for on the southeastern coastal regions where trap captures were 24 in Swansea, MA over one week and 17 in Kingston, RI over 2 days. Recommended spray intervals range from 3 to 6 days. **Fall armyworm** larvae are being found in very low numbers in Scituate, RI, and no moths were captured in traps. Infestation by FAW in other fields scouted in MA and NH were below threshold at 3-6% infestation. **Sap beetles** are active and corn and larvae have been observed feeding on kernels in Worcester and Franklin Cos., MA.

Cucurbit: **Squash vine borer** trap catches are falling across the region this week, but larvae and feeding were present in two untreated fields in Hampshire Co., MA. Another flight of vine borer moths is expected at the end of August. **Squash bug** adults, eggs and nymphs of all stages were found above threshold of 1 nymph per plant at the 5 leaf stage in Hampshire Co., MA this week. Scouts in MA, RI, and VT have been looking carefully for **cucurbit downy mildew**, but still no reports of infection! **Powdery mildew** is now prolific in MA, NH, RI, and VT, but not yet seen in ME. Mow down older successions after harvest and protect younger plants with fungicides; there are many good options for conventional and organic systems including: Torino, Quintec (rated very effective), Group 3 (Procure, Rally, Tebuzol, Folicur, Inspire Super), or Group 7 (Pristine, Fontelis, Luna), Zing!, Milstop, Kaligreen, Sulfur, and Oxidate. **White mold** was confirmed wreaking havoc in cantaloupe, watermelon, and winter squash in Worcester Co., MA. This pathogen causes wilt and dieback of foliage and stems, and can also cause water soaked lesions and rot of fruit. Harvest vine crops and destroy any infested residues as soon as you can and avoid storing affected fruit; the pathogen can spread from fruit to fruit. Many fruit rots of cucurbit are appearing now including **gummy stem blight** and **plectosporium** on cucumber, **anthracnose** on melon (and cucumber in Washington CO., RI) in Chittenden Co., VT, and **Phytophthora blight** in Hampshire and Worcester Cos., MA. Stay tuned for an article on these diseases next week!

Solanaceous: UMass Extension plant pathologists are collaborating with scientists at Cornell University to begin studying the incidence and severity of **potato virus Y (PVY)** in potato and other solanaceous crops in MA. This viral disease has become a major production challenge for tobacco growers, and new strains of the virus have recently evolved that can cause necrotic ringspots on potato tubers, reducing marketable yield and storage quality of potatoes. The disease is difficult to catch in the field because foliage is not always affected, and because of this, seed stocks are becoming contaminated with the virus, increasing its prevalence throughout the Northeast. We began scouting last week and found infected potato plants in every field we checked, though symptoms were mild and the percentage of the crop affected was low. As aphids begin to move into potato fields, expect this virus to start spreading and symptoms to worsen. Insecticides other than oils should not be used if aphids are present in affected fields–using them may actually increase aphid probing and spread of disease. Look for yellow mosaic on the leaves. Veins of Yukon gold leaves may develop blackened veins. If just a few plants are found with symptoms of virus, you can try rogueing them out. **If you think you may have PVY please contact Sue at sscheufele@umext.umass.edu. Septoria** has been reported on many cultivars of tomato in Chittenden Co., VT and in MA. Fields continue to be scouted for **late blight** in MA, but still no confirmation of the disease. See the MA late blight DSS for preventive spray intervals. **Powdery mildew** and **fulvia leaf mold** are prevalent in field tomatoes and worse in tunnels scouted in Hampshire, Bristol, and Franklin Cos., MA. **Mite** damage in solonaceous crops is being reported all over New England. **Broad mite** was found in tomato and causing russetting on fruit in a high tunnel; this pest is usually more damaging in peppers and eggplant. In **MA**, **VT and RI, two spotted spider mites** have been found causing damage to tomato foliage in a high tunnels (see article this issue on managing this pest). **In RI, tomato russet mite** is causing damage in a greenhouse (damage from this mite can be severe).