The Week in Vegetables

Stormy weather, local heavy rains, and warm temperature is creating ideal conditions for disease. Hail injury (see picture) can be entry points for some diseases, especially bacteria. Try to identify any disease symptoms, and don’t hesitate to send pictures to Heather Faubert (hfaubert@uri.edu) or me (andy_radin@uri.edu). If you grow on a relatively small piece of land, try to remove diseased material from the field if it is an infectious disease (not all are). On larger farms, make sure you are maintaining fungicide protection with broad spectrum materials, and once identified, switch to products that have specific modes of action if they are available. Remember to rotate between FRAC groups to avoid resistance problems. HEY: Don’t forget to pull your garlic!

Diseases to watch for:

In our weekly conference call across New England and NY, cucurbits took center stage. Watch low, wet spots that don’t drain for 24 hours- this is where Phytophthora root rot can set in. This is not the same Phytophthora as late blight of tomatoes and potatoes, but a similar type of organism. It also can become a regular problem for both cucurbits and peppers once it has occurred in a field, but mainly in those low, wet spots. They should be avoided. Symptom is overall plant wilting, followed by demise. It ain’t pretty. This disease has a WIDE host range.

So far, no downy mildew of cucurbits found in Upstate NY, Long Island, NY, Connecticut, or any other New England state. But yes in NJ and ON. If you are inclined to use a protectant fungicide, now is the time. The picture below is DM on cucumber, a picture taken in 2015. Notice the clear leaf vein outlines. There is an excellent webinar on the pathogen, with control strategies, by Chris Smart, a Cornell plant pathologist based in Geneva. Organic control measure discussion begins at around 23 minutes: http://articles.extension.org/pages/73892/managing-cucurbit-downy-mildew-in-organic-systems-in-the-northeast

More and more Septoria leaf spot and Early blight (Alternaria solani) is showing up on field tomatoes. Tunnel tomatoes are developing powdery mildew and leaf mold. In the tunnel, it’s practical to remove leaves with disease, and keep up with the pruning. A bad disease year can also convince you to reduce plant density the following year.

Hail damage (left) on winter squash. Downy mildew (right) on cucumber. Zoom in on this and notice how clean the angles are. That’s because the pathogen doesn’t cross through the leaf veins.
Insect pests to watch for:

**Squash bugs** are laying obscene amounts of eggs in some locations. Young nymphs rapidly spread out after they hatch out. If applying a contact insecticide, it’s essential to get coverage under the leaves. Large numbers of nymphs and adults feeding on individual plants can cause them to go down fairly rapidly. This may happen in combination with **bacterial wilt**, which I’m seeing a lot of in many locations. It is spread by feeding of adult **Striped cucumber beetles**. I feel pretty sure that a wilting, dying squash, melon or cucumber plant that has it’s older leaves riddled with cucumber beetle feeding damage has bacterial wilt.

**Mexican bean beetles** have now made their appearance (see photo below). If you see a little bit of feeding damage, pay close attention, because these beetles are often more abundant than what appears at first glance. They multiply rapidly, and lots of destructive larvae will be present by the end of the month. If this insect is a regular problem and beans are an important part of your crop production mix, consider releasing the parasitoid wasp *Pediobus foveolatus*. You can read about that here: https://ag.umass.edu/vegetable/fact-sheets/mexican-bean-beetle-biological-control.

If you have a planting of eggplant near an electrical outlet, you might try the method of **Colorado potato beetle** control as seen in the picture below...

If you are still having trouble with **beet leaf miner** on chard and spinach, it’s most likely because they weren’t controlled early in the season during the first egg laying. They become far more numerous in later generations. A well timed spray early in the season can prevent this from becoming a mid season problem.

Finally, on **SWEET CORN**, trap catches throughout New England and New York have been pretty low for **Corn Earworm** and **Fall Armyworm**, while we are between moth flights for European **Corn Borer**. This suggests that a 6 or 7 day spray schedule is possible right now.

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**Beet leaf miner eggs (top), Mexican Bean beetle larva (middle) and “Bug ShopVac” bottom**