The Week in Vegetables

It’s all finally kicking into high gear, with some real sunshine and lots of rapid growth. Also some periods of genuine humidity, and now heavy rain showers. Good growing but also conditions for disease development. And now many of our more familiar summer vegetable pest insects are out in force. And plant pests, too. Summer annual weed seeds are providing an endless parade on farms that don’t employ herbicides. Before the canopies close in many crops, now is the time to get in between and mechanically cultivate, either by hand or machine., the shallower the better.

**Diseases to watch for:**

Downy mildew of cucurbits comes in on southerly winds beginning around now. You can track its northward movement here: http://cdm.ipmpipe.org/. The closest occurrence is in Maryland on the DelMarVa peninsula. Pay attention to this and consider using a protectant fungicide within the next few weeks if you are growing varieties with low resistance - current forecast is “moderate risk”. Consider reducing planting density, too.

**Bacterial blight of Bean:** If you save bean seeds or have a history with this disease, it’s not too early to see signs of this since the weather has been conducive to disease development. Copper fungicide is something to consider as a protectant. This disease can spread very quickly, as it did in this bean patch last summer (left).

**Bacterial diseases of tomato:** There are three- Bacterial spot, Bacterial canker, and Bacterial speck. All three can come from seed and also overwinter in crop debris. For a good fact sheet, see this from UConn: http://ipm.uconn.edu/documents/raw2/Bacterial%20Diseases%20of%20Tomato/Bacterial%20Diseases%20of%20Tomato.php?display=print. Above, right, is a picture of two leaves with lesions. The one on the right is the familiar Early Blight (*Alternaria solani*)- notice the concentric rings, or “target” look. On the left, with the yellow halos around dark, nondescript lesions, is most likely a bacterial infection. I found this late on Friday and it was too late to bring to Heather, who really knows how to get “bacterial streaming” under the microscope. It requires making a slide and breaking some cells along the edge of the lesion. Under the scope, you see a cloudy stream flowing from the broken cells. I am usually not successful when I try this, but Heather always is.
Tarnished Plant Bug, an all purpose pest: Here is a list of host plants for TPB from a good Penn State article (http://ento.psu.edu/extension/factsheets/tarnished-plant-bug): asparagus, celery, strawberries, cauliflower and broccoli, potatoes, beans, alfalfa (especially when it begins to flower), peaches, carrot, nursery stock and many species used as cut flowers. If you have strawberries, the time is now to scout your field and take action if necessary. If you see young potato leaves that have turned dark before fully expanding, that would be them.

Insects ♥ Cucurbits: We are now at the time of year when all three major insect pests can be seen: Striped cucumber beetle, Squash bug, and Squash beetle. If you have striped cucumber beetle trouble, you should be row-covered up until female flowers begin to open. Populations can be knocked back with insecticide, but bacterial wilt, which they spread while feeding, can become a problem. Please let me know if you see your cucurbits wilting at mid-day and then recovering in the evening. This could be the start of the disease. Squash bugs are now out and about and laying eggs (see immediately below, left and right). I have personally experienced tremendous damage from these- they can take down a summer squash planting a few weeks earlier than you are expecting to pick, and they also infest fruits. Don’t let them get the upper hand. The squash beetle can sometimes build up to high populations later in the summer. They have been moving northward over the last several years from the Mid-Atlantic, and now seem well established in RI. Later in the summer seems to be when their population starts to get big enough to cause damage, especially on fresh later plantings of summer squash. Their larvae look identical to Mexican bean beetles (spikey, bright yellow blobs), and the adults strongly resemble adult MBB as well. Beetles pictured below were just found yesterday in Chepachet.