UCONN EXTENSION

Vegetable Pest Alert

July 26, 2024

What to be on the lookout for…

Cucurbit downy mildew

The nearest CDM report is from Orange County in NY (July 15 on cucumber). This CDM map gets updated as new CDM cases are reported. Be sure to check for symptoms in your DM succeptible cucumber field.

Cucurbit downy mildew on upperside and underside of cucumber leaf

Mobile fungicides are needed to effectively manage downy mildew but are at risk for resistance development. For pesticide resistance management, alternate among chemical classes and apply these products with protectant fungicides; note that this is a label requirement for some products. Orondis Ultra, Ranman, Zing! or Gavel, and Omega, are considered the most effective choices. Efficacy recently in some research plots and commercial fields has been substantially reduced compared to when first available for several fungicides, including Revus, Forum, Presidio, Previcur Flex, Curzate, and Tanos. These changes are likely due to resistance having developed. Revus has exhibited variable control across crop types; efficacy has been poor on cucumber and excellent on pumpkin. Curzate and Tanos have limited residual activity, which partly explains poor control when applied on a weekly schedule. Phosphorous acid fungicides are not as effective for this DM as for others. Ridomil Gold, and the QoI fungicides (Quadris F, Quadris Opti, Flint Extra, Cabrio, Pristine, and Reason are no longer recommended because of resistance. (Source: 2024 Cornell Integrated Crop and Pest Management Guidelines, Cornell Cooperative Ext Publication)

Thanks to Margaret McGrath at Cornell University detailed information about downy mildew and its management for conventional and organic systems:
Biopesticides for Managing Cucurbit Downy Mildew Organically
Mobile Fungicides for Managing Three Major Cucurbit Diseases

Bacterial disease of pumpkins: Angular leaf spots *(Pseudomonas syringae pv. lachrymans)* is more common in our region then bacterial leaf spot *(Xanthomonas cucurbitae)*. In case of bacterial leaf spots, lesions are very small (0.07 inches), but as lesions enlarge (0.07-0.15 inches), they can coalesce and look like angular leaf spots. Therefore, it can be difficult to visually distinguish between them. Since both are bacterial pathogens, there management is essentially the same. While the efficacy of copper materials is limited after the onset of the diseases, it can help to reduce the spread. Tank-mixing or alternating between products such ManKocide, Actigard, or Serenade may be more effective in reducing the spread than single copper material. Both diseases can be seedborne. So, start with disease-free seeds. Plow under crop

Angular leaf spot (left; photo courtesy of T.A. Zitter, Cornell Univ.) and bacterial leaf spot (right; photo courtesy of Margaret McGrath, Cornell Univ.)

residue after harvest and rotate away from cucurbits for 1-2 years when practical. Avoid working fields when plants are wet (morning dew or after rain) as this minimizes bacterial spread from diseased to healthy plants. If irrigation is needed, avoid using overhead irrigation to minimize bacterial pathogen dispersal.

Corn earworm

Trap capture was 7.5 moths/night this week in a farm in Berlin; 0.28 moths/night in Glasstonbury, 1/night in Shelton.

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

European corn borers

ECB are continuing to be trapped, but in low numbers (2 moths/trap/week-- 1 hybrid & 1 NY-- in Berlin; 6 (4 IA & 2 hybrid) in Glastonbury; and 0 in Shelton).

Fall armyworm

Fall armyworm flight is also starting now (3 moths/week in Berlin, 0 in Glasstonbury) with some damage noted in young corn in Berlin. 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.

See https://nevegetable.org/crops/insect-control-6 for spray options.

Continue to be othe lookout for

- Black rot of brassica
- Cercospora leaf spot of beet
- Plectosporium blight of cucurbit
- Cucurbit anthracnose
- Phytophthora in cucurbits, peppers, and others (more reports of phytophora in cucurbit this week)
- Squah vine borers (0/week in Glastonbury; 3/week in Berlin- this week lowest count for this season)
- Cucurbit powdery mildew
- Bacterial wilt of cucurbits
- Pepper maggot
- Leaf mold in tunnel tomatoes
- Early blight of tomatoes
- Bacterial canker in tomatoes

Agritourism Interest:

UConn Extension is considering offering an agritourism/agri-entertainment workshop and wants to gauge your interest in attending. Please complete this brief survey to help us plan.

Survey link:
https://s.uconn.edu/agritourism

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!

This report was prepared by Shuresh Ghimire, UConn Extension. All photos in this publication are credited to UConn Extension Vegetable Program unless otherwise noted.

Contact us with any vegetable production related questions!

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