



PENNSYLVANIA VEGETABLE MARKETING & RESEARCH PROGRAM

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Pennsylvania Vegetable IPM Weekly Update

August 10, 2022

These are cooperative projects involving Penn State University researchers, Penn State Cooperative Extension educators, growers, the Pennsylvania Department of Agriculture, the Pennsylvania Vegetable Marketing and Research Program and the Pennsylvania Vegetable Growers Association.

Pest Watch Report

Karly Regan, Penn State Extension Educator

MOTH CATCH CONTINUING TO INCREASE ACROSS PENNSYLVANIA

Corn earworm numbers caught in traps reporting data this week were increasing at many sites again this week. Sites in Bucks, Centre, Franklin, Indiana, Juniata, Lancaster, Mifflin, and York Counties experienced average catch per night of 2-4 moths which means a spray interval of 5-6 days would be suggested for corn that's tasseling or silking. Bedford County experienced average catch per night of 9 moths which means a spray interval of 4-5 days would be suggested. Blair County experienced average catch per night of 11 moths, which means a spray interval of 3-4 days would be suggested. As a reminder, corn that is tasseling or silking is very attractive to corn earworm, as eggs are laid on silks, and control must be achieved while larvae are recently hatched before they've entered the ear.

Once the spray threshold is reached, you can consider products from the pyrethroid class, diamide class, or spinosyn class for effective control. We tend to see the best efficacy from non-pyrethroid products such as Coragen, Verimark, Blackhawk, and Radiant, as pyrethroid resistance has increased in migrating corn earworm populations. However, we tend to see more resistance later in the season than now, as moths migrate from further south in the United States up to our region. Diamides and spinosyns do not provide effective control of other pests such as sap beetles, brown marmorated stink bug, Japanese beetles, or adult corn rootworms. If you're seeing these pests as you scout your corn, consider adding a pyrethroid, or the premix Besiege to control those.



Fig 1. A larval corn earworm feeding on corn



Fall armyworm catch remains low this week with 15 or fewer moths caught in Bedford, Blair, Juniata, Lycoming and Mifflin Counties and zero caught in all other counties reporting this week. By managing for corn earworm, fall armyworm should be adequately controlled, as well. Fall armyworm damage can occur on the ear, as well as on the foliage. Foliage feeding will leave ragged edges and waste that resembles sawdust.

Fig. 2. Fall armyworm feeding damage on corn foliage

Average weekly catch – 7-day moving average. The average catch per night (total catch, divided by the number of nights trapping), divided by the number of nights where data exist, multiplied by 7. If no data exist for that week, null is reported.

County	Site	CEW			FAW		
		July 25	Aug 1	Aug 8	July 25	Aug 1	Aug 8
Bedford	Curryville	2.9	10.5	9.4	3.1	0.8	2.4
Blair	Sinking Valley	Null	5.8	11	0	0	0.1
Bucks	Doylestown	1.9	3.9	4.6	0	0	0.1
Butler	Cabot	Null	Null	0.7	0	0	0
Centre	State College	3.7	2.1	3	0	0	0
Centre	Rock Springs	2.1	3.2	0.4	0	0	0
Clinton	Loganton	0.9	0.4	2	0	0	0
Franklin	Shippensburg	4.3	3.1	1.9	0	0	0
Franklin	Waynesboro	0.9	1.7	3.3	0	0	0
Indiana	Indiana	1.6	1.1	2.3	0	0	0
Juniata	Port Royal	0.7	0.7	2.9	0.3	0	0
Lancaster	Landisville	4.4	4.2	0.7	0	0	0
Lancaster	New Danville	0.7	2	3.6	0	0	0
Lancaster	Neffsville	1.9	2.4	Null	0	0	Null
Lehigh	Germansville	10.3	19	0	0	0	0
Lycoming	Linden	1	0	Null	0.3	0	Null
Lycoming	Montoursville	0.6	0.4	0.1	0.3	2.1	0
Mifflin	Belleville	3.4	5.4	2.3	0.1	0.7	0
Montgomery	Souderton	3.4	4.3	Null	0	0	0
Montour	Washingtonville	3.9	3.9	Null	No trap	No trap	No trap
Northampton	Easton	0	0.4	Null	0	0	Null
Washington	Venetia	Null	2.9	Null	0	0	Null
York	York	Null	1.5	4.3	0	0	0

THRESHOLDS Reproductive (tassel/silk) and late vegetative corn attract moths. Shorten spray schedules when populations increase.

Threshold based on CEW	Catch per week	Spray Frequency
Almost Absent	1-13	7+
Very low	14-35	5-6
Low	36-70	4-5
Moderate	71-349	3-4
High	>350	2-3

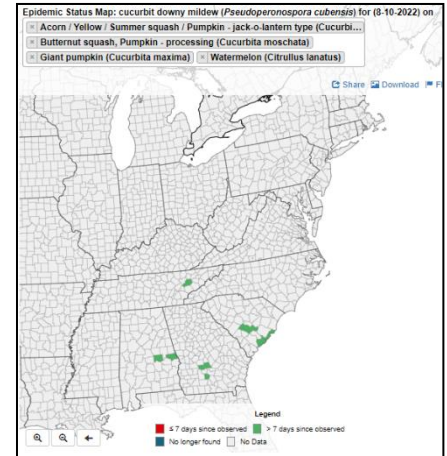
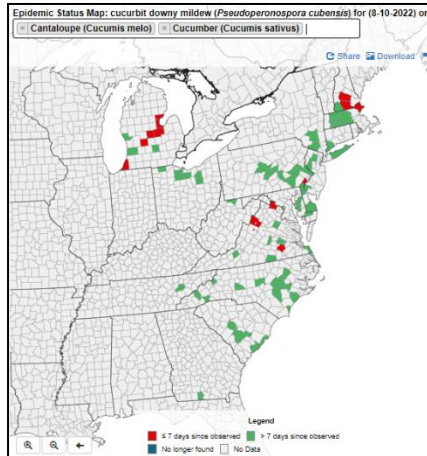
Vegetable Disease Updates for August 10, 2022

Beth Gugino, Penn State

GENERAL UPDATES:

Based on the USAblight map, there continue to be **no reports of late blight** on tomato or potato in the region. If you suspect late blight on your farm, please let me know either by email at bkgugino@psu.edu or by phone at 814-865-7328 or contact your local Extension Office.

Downy mildew on cucumber was confirmed in Delaware Co. yesterday. Previously reported counties include Centre, Mifflin, Dauphin, and Lehigh, Juniata, Snyder, Lancaster, Berks, and Bucks Co. There have also been additional reports in Michigan, New Hampshire, and Virginia all on cucumber with a few on cantaloupe (see map on left). There continue to be no confirmed reports on pumpkin, winter squash or watermelon north of eastern Tennessee (map on right). The recent



weather conditions have been ideal for downy mildew so maintaining a regular spray program on cucumber and cantaloupe is recommended. If you are done with a crop for the season burn it down or disk it under to reduce the source of inoculum across the region. If you suspect cucurbit downy mildew on your farm, please let me know either by email at bkgugino@psu.edu or by phone at 814-865-7328 or contact your local Extension Office. For the latest reports and forecasts check out <https://cdms.ipmpipe.org>.

CLINIC CORNER: FINDINGS FROM THE PENN STATE PLANT DISEASE CLINIC WITH JENNIE MAZZONE

Phytophthora Blight on Pumpkin

The [Penn State Plant Disease Clinic](#) received a pumpkin sample in August from a commercial field in Clinton County, PA. The pumpkin fruit submitted were rotted and had a grey, white sporulation covering most of the fruit. Microscopic examination of this sporulation revealed the fungal-like oomycete pathogen *Phytophthora*, which causes Phytophthora blight on cucurbits. Phytophthora blight can affect all aboveground parts of cucurbits. Leaf lesions are irregularly shaped and can range from light green to necrotic. Stem lesions are chlorotic to necrotic and can cause the plant to wilt. Fruit lesions may have a water-soaked appearance and are



Powder sugar sporulation caused by Phytophthora blight on severely infected pumpkin fruit (Photo: Jennie Mazzone).



more commonly found close to ground level where moisture is high. Signs of the pathogen appear as a grey, white mold and may be present on any affected plant part.

Moisture management is important in managing Phytophthora blight. Plant in well-drained fields on raised beds. Avoid overhead irrigation. Phytophthora can survive for years in the soil. If Phytophthora blight is confirmed in a field, avoid planting susceptible crops (cucurbits, tomatoes, peppers, snap beans, etc.) in that field for as long as possible. Also avoid planting susceptible crops in adjacent, low-lying fields where water runoff may accumulate, as the pathogen could be carried to these fields in heavy rains. Sanitize equipment used in infested fields. More information on Phytophthora blight management is available in the [2022-23 Mid-Atlantic Commercial Vegetable Recommendations](#).

Close-up of whitish-grey sporulation on pumpkin fruit infected with Phytophthora blight (Photo: Jennie Mazzone).