



# PENNSYLVANIA VEGETABLE MARKETING & RESEARCH PROGRAM

2301 N. Cameron St., Harrisburg, PA 17110 | 717-694-3596 | pvmp@embarqmail.com | PAVeggies.org

## *Pennsylvania Vegetable IPM Weekly Update*

July 28, 2021

*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.*

### **Vegetable Disease Updates**

- There continue to be **no reports of late blight** on tomato or potato in the region.
- New reports of **downy mildew on cucumber and cantaloupe** in New York, Michigan, and Ohio as well as Mifflin and Lancaster Counties in Pennsylvania have been received. See <https://cdm.ipmpipe.org> for the latest reports.
- The drier weather of this past week has generally not favored disease development.
- If you suspect late blight or downy mildew on your farm, please contact Beth Gugino at [bkgugino@psu.edu](mailto:bkgugino@psu.edu) or 814-865-7328 or contact your local Extension Office.

### **Sweet Corn Insect Pest Monitoring**

*Shelby Fleisher, Extension Vegetable Entomologist, Penn State University*

The **surprise this week were multiple spikes in Fall Armyworm**, along with a continued presence of Corn earworm. There was a lot of variability in where these captures occurred.

**Corn earworm (CEW) catch** in PA have been variable and a bit low, but 7 of 20 sites were above thresholds: 5 were on the low side (5-6 day threshold), and 2 in Mifflin and Blair suggesting a 4-5-day interval. Lower counts may be due to sprays at the sampling sites, or traps situated in older corn. CEW has resistance to pyrethroids which increases during the season. Other options include spinosyns (IRAC group 5: Blackhawk, Radiant) and diamides (IRAC group 28: Coragen, Vantacor). Diamides have low bee toxicity. These also control ECB and FAW, but not sap beetles, silk-clipping beetles (adult Western corn rootworm), or stink bugs. Pyrethroids or premixes that include pyrethroids and diamides (Beseige, Elevest) are then needed.

The surprise this week was that **Fall armyworm (FAW)**, which we detected moving into PA last week, **continued or increased strongly in Bedford, Erie, and Mifflin counties**. Concerns about pyrethroid resistance is exasperated with FAW, which has a history of resistance. FAW does not undergo diapause, so its overwintering is limited to very far south (southern FL, southern TX, perhaps the Gulf Coast). Migratory behavior and nighttime wind currents result in populations arriving here, several generations after the New Year starts. The sporadic, highly disjunct pattern of its arrival we are seeing is consistent with that model. Although larvae feed heavily on vegetative corn, when it gets into tassel or silking corn then the larvae bore rapidly into the ear, from the base, side or tip.

**European corn borer (ECB)** continued to be low. Mifflin showed an uptick, but this could be due to a nontarget, the carrot seed moth. Sprays for CEW or FAW work against ECB.

**Sap beetles** are showing up, especially in cultivars with exposed tips, and farms with strawberries or other crops that provide good hosts. The larvae look like small white worms in the ear with sclerotized tubercles at the rear. A recent article of sap beetles is here: <https://extension.psu.edu/sap-beetle-management-in-sweet-corn>. Multiple applications that include pyrethroids were needed for sap beetle control in small plot trials.



*Fall armyworm (Photo R. Bessin)*



*Sap beetle larvae (Photo T. Ford)*

Farm scale sanitation (clean harvests) are key to sap beetle management.

**Average weekly catch** –moving average for the last 7 days.

County	Trap Name	CEW			ECB			FAW		
		13-Jul	20-Jul	27-Jul	13-Jul	20-Jul	27-Jul	13-Jul	20-Jul	27-Jul
Blair	Tyrone	29	90	40	0	0	15	0	0	3
Bedford	Martinsburg	13	26	26	0	0	12	5	35	30
Bucks	Bedminster		2	17	0	2	0	0	0	0
Centre	State College	6	35	12	0	0	0	0	0	0
Centre	Rock Springs	5	14	4	0	0	0	1	0	0
Clinton	Loganton	24		9	1		3			
Erie	Fairview	9	6	5				0	2	39
Erie	Lake City	24	22	15				6	40	151
Indiana	Brush Valley	0	7	2				1	2	6
Indiana	Creekside	19	54	8				0	5	12
Juniata	Port Royal	25	24					0	1	
Juniata	Greenbar	2	5							
Lancaster	Landisville	9	6	10	0	2	2	0	0	2
Lancaster	Neffsville	3	2	1	0	4	0	0	1	0
Lancaster	New Danville	4	2	2	0	0	0	0	0	0
Lehigh	Germansville	4			0			0		
Luzerne	Drums	0	0		10	3		0	0	
Lycoming	Linden	6	12					1	4	
Lycoming	Montoursville		4	16					1	1
Lycoming	Muncy	15	21	20				1	0	0
Mifflin	Belleville	45	37	50	0	10	30	1	60	75
Montour	Washingtonville		2	10		2	7			
schuylkill	Tower City	4		2	5		2	0		
Susquehanna	LaRue		42			1			0	
Union	Winfield		10	6		11	1			
Washington	Venetia	8	58							
Bradford	Troy	21								
Bradford	Ahern	0								
York	York	10	3	9	0	0	0	0	7	1

**THRESHOLDS:** Reproductive (tassel/silk) and late vegetative corn attracts moths. Shorten spray schedules when populations increase. If CEW is not a problem, then consider ECB.

	CEW		ECB	
	Catch/Week	Spray Frequency (days)	Catch/Week	Spray Frequency (days)
Almost Absent	≤13	7 or more	<15	7 or more
Very low	14-35	5-6	15-35	6
Low	36-70	4-5	36-70	5
Moderate	71-349	3-4	>70	4
High	>350	2-3		

Penn State College of Agricultural Sciences research and extension programs are funded in part by Pennsylvania counties, the Commonwealth of Pennsylvania, and the U.S. Department of Agriculture.

Where trade names appear, no discrimination is intended, and no endorsement by Penn State Extension is implied.