



PENNSYLVANIA VEGETABLE MARKETING & RESEARCH PROGRAM

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Pennsylvania Vegetable IPM Weekly Update

August 23, 2023

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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.

PestWatch Report

MOTH CATCH INCREASING AGAIN THIS WEEK

Glen Bupp and Leah Fronk, Penn State Extension



Fig 1. A monitoring trap containing greater than 200 corn earworm moths

Corn earworm numbers caught in traps reporting data this week were generally increasing at many sites again this week. Bedford, Blair, Bucks, Butler, Juniata, Lancaster, Luzerne, Washington, and York are seeing Moderate catch numbers weekly and are on a 3-4 day suggested spray interval. Clinton, Indiana, and Mifflin are on a 4-5 day suggested spray interval. The remainder of the state is seeing lower catch numbers.

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. Particularly, we tend to see more resistance later in the season, 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, stink bugs, 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.

No fall armyworm were caught by sites in Pennsylvania 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

Average weekly catch for corn earworm.

Location	6-Aug	13-Aug	20-Aug	Location	6-Aug	13-Aug	20-Aug
Bedford, Pennsylvania				Juniata, Pennsylvania			
Peach Hill Orchard	17	55	117	Port Royal	8	56	93
Blair, Pennsylvania				Lancaster, Pennsylvania			
Hillview Farms	20	26	70	Landisville	10	74	116
Bucks, Pennsylvania				Neffsville			
Doylestown	21	204	185	New Danville	25	81	112
Butler, Pennsylvania				Luzerne, Pennsylvania			
Renfrew	15	72	139	Drums	7	35	100
Centre, Pennsylvania				Lycoming, Pennsylvania			
PSU Research Farm	5.5		17	Shirey Farm	0		
State College	0		7	Snyder Farm	8	26	
Clinton, Pennsylvania				Mifflin, Pennsylvania			
Loganton	2.5		40	Belleville	8		42
Erie, Pennsylvania				Montgomery, Pennsylvania			
Lake City Nursery Rd	2	3	3	Souderton	20	17	
Lake City Rt 5	2	0	19	Susquehanna, Pennsylvania			
Franklin, Pennsylvania				LaRue's Montrose			5
Waynesboro	39	41		Washington, Pennsylvania			
Indiana, Pennsylvania				Peters Township	35	110	129
Brush Valley	2	30	42	York, Pennsylvania			
Indiana	8	60	62	York	16	94	73

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

Cucurbit Disease Update

DOWNY MILDEW ON SQUASH

Beth Gugino, Penn State Extension Vegetable Pathologist

Downy mildew has been confirmed on butternut squash in Lancaster Co. and is suspected on jack-o-lantern pumpkins in Columbia/Luzerne Co. area. Winter squash and pumpkins are susceptible to clade 1 of the downy mildew fungus. Therefore growers, especially in eastern PA, should now be including fungicides specific to downy mildew control on all cucurbit crops as downy mildew has been reported in several areas on cucumbers and cantaloupes which are susceptible to clade 2 of the downy mildew fungus.