



In This Issue

Insects, Mites, and Nematodes

- Get to the Root(worm) of the Problem
- Leafhopper Populations Booming
- Black Light Trap Catch Report

Weather Update

- Temperature Accumulations

Insects, Mites, And Nematodes

Get to the Root(worm) of the Problem - (*Christian Krupke, John Obermeyer, and Larry Bledsoe*)

- High-risk fields should be evaluated for rootworm larvae and damage.
- Insecticide efficacy on early-planted corn may be suspect.
- Larval sampling procedures are outlined.
- Rescue treatment guidelines are given below.

Rootworm larvae have been hatching and seeking corn roots for a few weeks in northern counties and even longer in southern counties. When first hatched the larvae are seldom observed because they are very small and live mostly within the roots. As they increase in size, they will feed both inside and outside roots, causing tunneling and pruning. It would be prudent to sample roots of plants in high-risk fields, especially where insecticide efficacy is in question.

To sample for rootworms, use a shovel and lift out the root mass and surrounding soil and place on a dark surface (black plastic garbage bags work well). Carefully break up the clods and sort through the soil. Look for 1/4 to 1/2 inch long, slender, creamy-white larvae with brownish-black heads and tails. Once the soil has been separated from the root mass, inspect it for root scarring and pruning. You may find the larvae under the leaf collars that are close to nodal roots; tear these leaves away to check. Rootworms are often observed sticking out of roots. Repeat the process with several plants, representing different areas of a field. An average of two or more larvae per plant represents a rootworm population and signals the need for a rescue cultivation application.

Insecticides applied after planting should be directed toward the base of the plant. It is also important to throw soil up around plants to incorporate the insecticide and promote



High tech tools for rootworm sampling

the establishment of brace roots. A good brace root system will help prevent plant lodging and reduce yield losses due to rootworm feeding. If a no-till field has an economic population of larvae, placing the insecticide on top of the ground will usually not be effective. The only exception may be if the soil insecticide is watered in through irrigation or rainfall (ideally 1/2" or more). Two liquid soil insecticides, Furadan 4F (2009 is the last year for use of this product) and Lorsban 4E, are labeled for post-emergent applications. If one decides to mix the insecticide with a liquid nitrogen source for a side-dress application, compatibility checks should be made. Broadcasting the insecticide will greatly diminish rootworm efficacy.



Watch this movie on scouting for corn rootworm larvae



The damaged roots on the left isn't noticeable until the plant falls over

Leafhopper Populations Booming - (Christian Krupke, and John Obermeyer)

- Regrowth is most at risk for feeding damage.
- Damage has already occurred once “hopper burn” is noticed.

Populations of potato leafhopper in alfalfa fields have been rising throughout the state. There have been observations of high numbers of leafhoppers coming to lights at night. Undoubtedly, the extended hot temperatures have contributed to this population explosion.

Producers are encouraged to inspect new growth soon after cutting for potato leafhopper; this is when alfalfa is most susceptible to feeding, leading to reduced yields and protein levels. Remember, once yellowing or “hopper burn” is seen, the damage has already been done. Refer to E-220-W, *Alfalfa Insect Control Recommendations – 2009* <<http://extension.entm.purdue.edu/publications/E-220.pdf>>.



Hopper burn, means damage is done



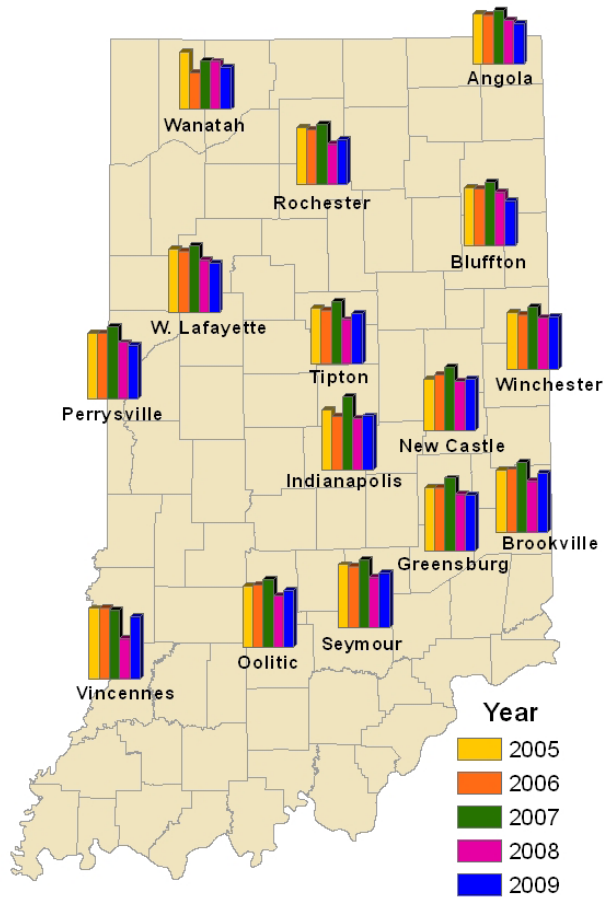
Black Light Trap Catch Report - (John Obermeyer)

County/Cooperator	6/9/09 - 6/15/09							6/16/09 - 6/22/09						
	VC	BCW	ECB	SWCB	CEW	FAW	AW	VC	BCW	ECB	SWCB	CEW	FAW	AW
Dubois/SIPAC Ag Center	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Jennings/SEPAC Ag Center	0	0	3	0	0	0	2	1	0	0	0	0	0	6
Knox/SWPAC Ag Center	0	1	0	0	0	0	4	0	0	0	0	0	0	16
LaPorte/Pinney Ag Center	0	0	11	0	0	0	2	0	1	16	0	0	0	5
Lawrence/Feldun Ag Center	0	1	0	0	0	0	6	0	1	0	0	0	0	17
Randolph/Davis Ag Center	0	1	0	0	0	0	2	0	0	3	0	0	0	4
Tippecanoe/TPAC Ag Center	0	0	5	0	0	0	5	0	1	1	0	0	0	17
Whitley/NEPAC Ag Center	0	0	5	0	0	0	1	0	0	7	0	0	0	5

VC = Variegated Cutworm, BCW = Black Cutworm, ECB = European Corn Borer, SWCB = Southwestern Corn Borer, CEW = Corn Earworm, FAW = Fall Armyworm, AW = Armyworm

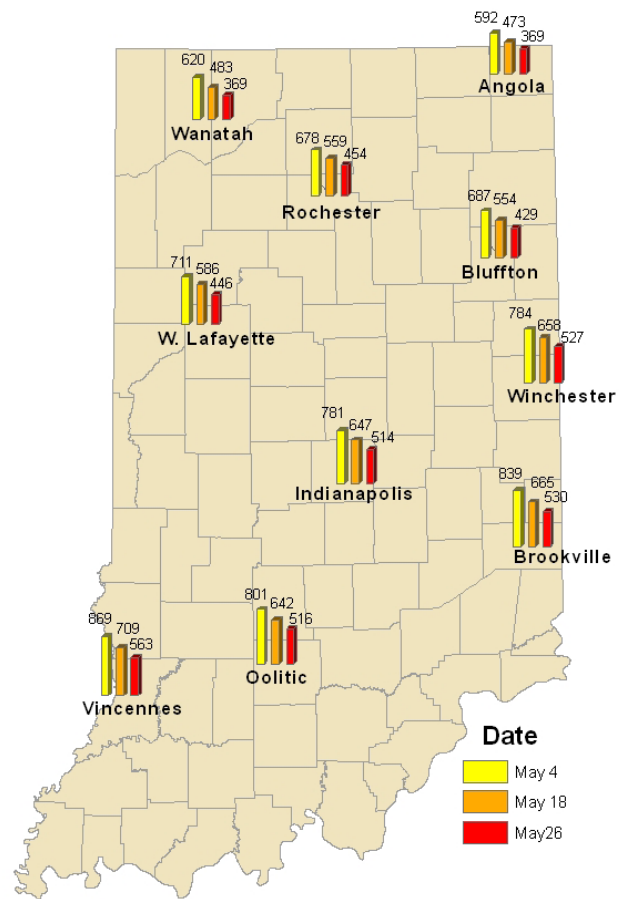
Weather Update

Accumulated Growing Degree Days (86/50) Since April 1



Data Provided by Indiana State Climate Office
 Web: <http://www.iclimat.org>

Accumulated Growing Degree Days (86/50) by Date



Data Provided by Indiana State Climate Office
 Web: <http://www.iclimat.org>

DISCLAIMER Reference to products in this publication is not intended to be an endorsement to the exclusion of others which may have similar uses. Any person using products listed in this publication assumes full responsibility for their use in accordance with current directions of the manufacturer. It is the policy of the Purdue University Cooperative Extension Service that all persons have equal opportunity and access to its educational programs, services, activities, and facilities without regard to race, religion, color, sex, age, national origin or ancestry, marital status, parental status, sexual orientation, disability or status as a veteran. Purdue University is an Affirmative Action employer.

1-888-EXT-INFO (398-4636)

<http://www.extension.purdue.edu/new>