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Pest & Crop Newsletter

Purdue Cooperative Extension Service

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Issue 22, September 2, 2016 • USDA-NIFA Extension IPM Grant

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INSECTS, MITES, & NEMATODES

Western Bean Cutworm Trait “Control” in Question, Check Your Fields! – (John Obermeyer and Christian Krupke) –

- Severe western bean cutworm damage found on traited corn.
- Yield loss and, more importantly, moldy ears are concerns.
- Window for checking your fields is soon closing.

A producer in St. Joseph County (South Bend area) made a request for us to visit a few cornfields in his area, including his own and those of friends, to see the amount of western bean cutworm feeding occurring. The damage was eye-opening, as these were both Herculex AM and Genuity SmartStax traited hybrids. Both hybrids produce the Cry1F trait that includes WBC control on the label. This has provided control of this pest in the past, but that was not the case this year. Surface

scraping on some kernels from caterpillar feeding were observed several years ago and was attributed to the fact they need to feed in order to acquire the toxic dose. Feeding we are seeing this year, and the numbers of large and well-developed larvae demonstrates very little suppression of the larvae, if any at all. Many larvae appeared to have already entered the pre-pupal stage and left the plants to dig under the soil. Expect high WBC pressure in northern IN counties, especially on sandier soils, in 2017. Similar reports from many parts of MI and Ontario, Canada have been coming in in recent weeks. In northern Indiana, we repeated our survey in several fields with the same results. The majority of ears in each field exhibited feeding, some of it severe. Moldy ear tips were common. Producers are concerned about dockage at the elevator. Weather between now and harvest will determine which, if any, ear rots take hold in these damaged ears.



No western bean cutworm control in this traited corn

Pesticides, whether traditional or plant expressed (i.e., Bt corn), are regulated by EPA. However, EPA does not conduct efficacy tests to make certain a product works...YOU DO. No matter the marketing hype, product performance is evaluated by the user. "Buyer beware" is the phrase that

comes to mind. It's all but certain that this producer will look elsewhere for seed choices and consider other management tactics for the western bean cutworm in the future.

For producers in high-risk areas for western bean cutworm, we suggest you look in several areas of your cornfields (traited or not) as soon as possible and determine if you have some unhappy surprises waiting for you at harvest. It is too late to take action this year, but what you find might influence your 2017 seed order. Producers are paying a premium for that traited seed, yet unless you look now, you don't know if it is working like it should.



One of many molds seen in these trait-damaged ears

The following video we shot in 2010. It shows marginal feeding of western bean cutworm in Herculex protected corn. It also demonstrates how a gene-check strip works. Use of that test strip is the first step your seed rep will take in determining whether the hybrid is expressing the protein it should. If the answer is yes, it is likely that WBC in that field are demonstrating reduced susceptibility to the Cry1F trait and this should be communicated to seed dealers and, ultimately,

the registrants that are responsible for the product. The only way this happens is if producers and/or crop consultants get eyes on ears in the field now.

Happy scouting!

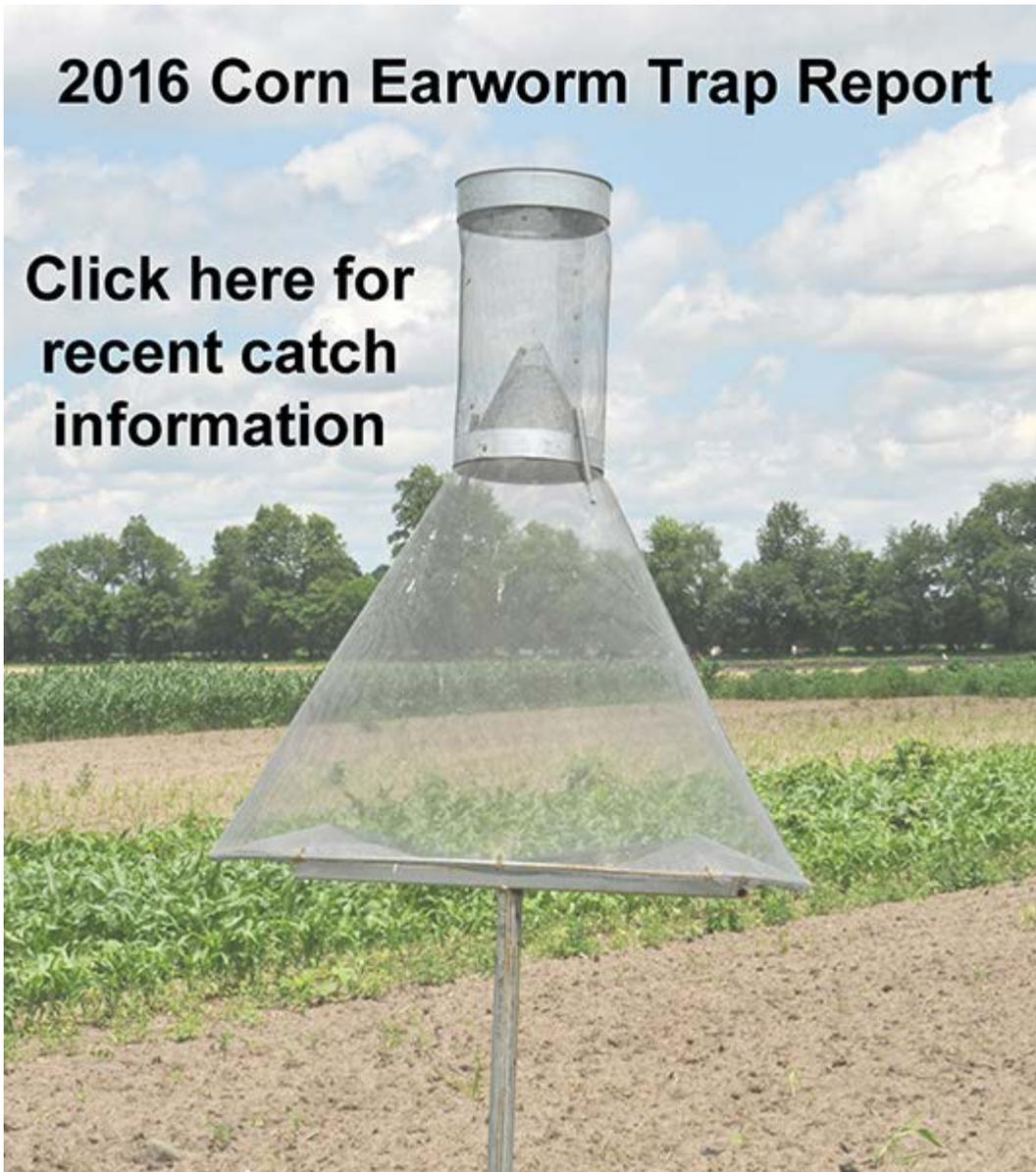


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2016 Corn Earworm Trap Report – (Rick Foster) –

2016 Corn Earworm Trap Report

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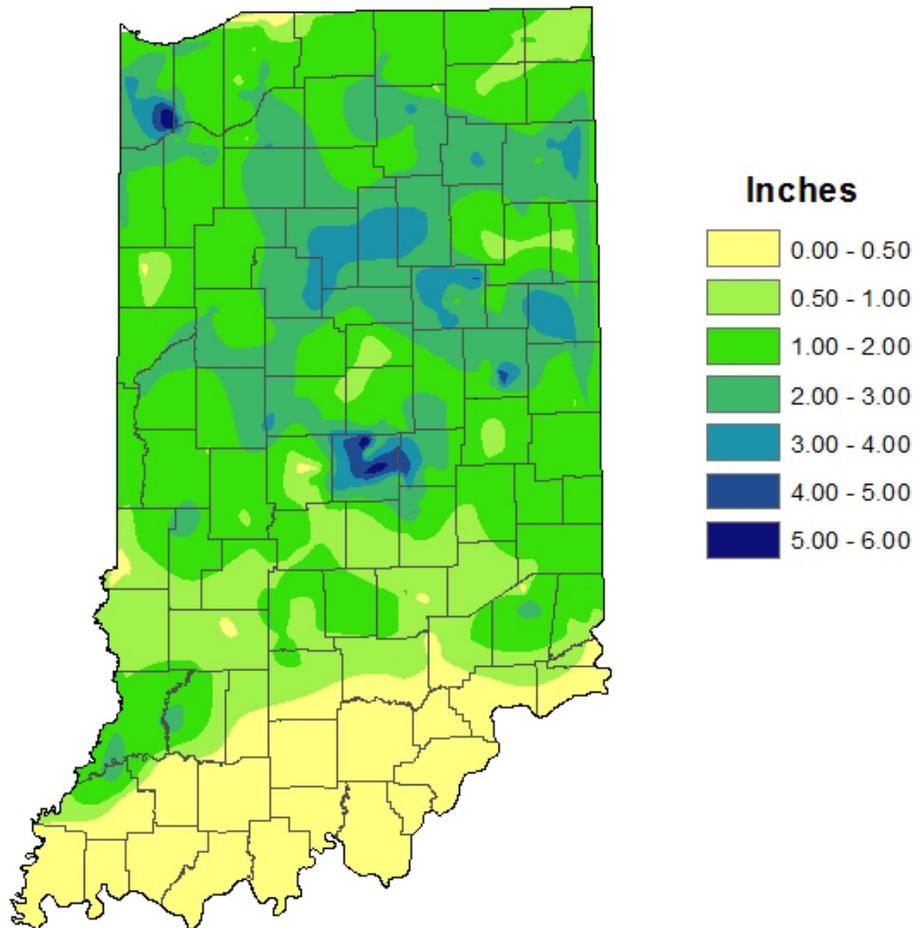
Corn Earworm Trap Report

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WEATHER UPDATE

Precipitation

**Total Precipitation
Aug 25 - 31, 2016
CoCoRaHS Network
(411 Stations)**

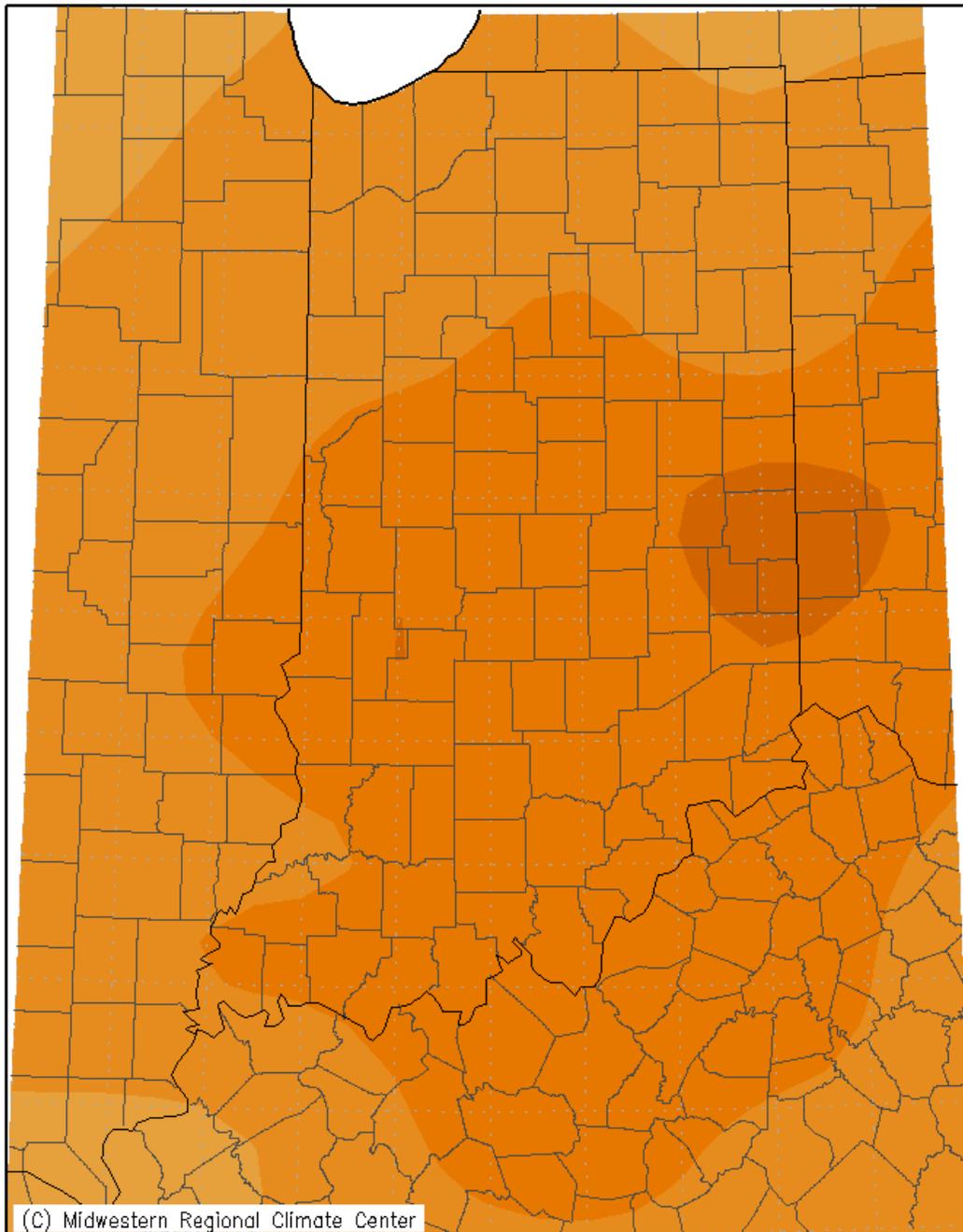


Analysis by Indiana State Climate Office
Web: <http://www.iclimat.org>

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Temperature

Average Temperature (°F): Departure from Mean August 24, 2016 to August 30, 2016



Mean period is 1981–2010.



Indiana State Climate Office www.iclimate.org
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