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# Pest & Crop Newsletter

Purdue Cooperative Extension Service

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Issue 17, July 20, 2017 • USDA-NIFA Extension IPM Grant

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### **Western Bean Cutworm Flight Continues, Scout High Risk Areas Now – (*Christian Krupke*) -**

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- Western bean cutworm flight still impressive.
- Scouting for eggs should continue for fields not yet treated.
- Most Bt hybrids will not give control, scouting + insecticide treatment is only option.
- If possible wait until 90-95% tassel emergence before insecticide treatment.

According to our moth captures from the last week (see trap report) we are just past peak moth flight, that means more to come. The large flight this season, in northern Indiana



and adjoining areas of Ohio and Michigan, are the result of the many fields found infested with larvae late last year. So high numbers of caterpillars entered the winter, which proved to be a mild one. In short, the high pressure is no surprise. This pest is potentially damaging to almost all corn in the region, because the Bt trait commonly found in the vast majority of corn hybrids (Cry1F) offer no control of this pest; resistance is a reality now <<http://msuent.com/assets/pdf/BtTraitTable15March2017.pdf>>.

Scouting and treatment are essential to prevent ear feeding and infection by the potentially even more damaging ear rot fungi that can readily develop in damaged ears later in the season.

Many pest managers are finding fields over the 5% (plants with one egg mass) threshold although the tassel/silks have not yet emerged. In cases like this, the best bet is to wait until 90-95% silking, even though eggs will continue to be laid and hatch. The young caterpillars will feed in leaf axils until the plant enters the reproductive stages and can be contacted with insecticides during their “final walk” from axils to the developing ear. Most producers will not want to spray twice, so the best way to maximize efficacy is to wait and get as many of the larvae as possible when the lure of the silk is present. Of course, once caterpillars are in the ear all hope of insecticidal control is lost. On a positive note, we have seen, first-hand, that even fields that with over 25% of plants with egg masses can be treated with insecticides and obtain excellent results. There are many compounds available, see the list here <<http://extension.entm.purdue.edu/publications/E-219.pdf>>.



*Young WBC larva feeding in leaf axil before heading to the ear.*

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## 2017 Western Bean Cutworm Pheromone Trap Report – (John Obermeyer) -

County	Cooperator	WBC Trapped			
		Week 1 6/22/17 - 6/28/17	Week 2 6/29/17 - 7/5/17	Week 3 7/6/17 - 7/12/17	Week 4 7/13/17 - 7/19/17
Adams	Kaminsky/New Era Ag	0	6	4	
Adams	Roe/Mercer Landmark	0	8	6	1
Allen	Anderson/Syngenta Seed	0	4	26	
Allen	Gynn/Southwind Farms	0	8	13	15
Allen	Kneubuhler/G&K Concepts/Harlan	0	4	13	4
Allen	Kneubuhler/G&K Concepts/Koch	0	10	0	4
Bartholomew	Bush/Pioneer Hybrids	0	0	0	0
Clay	Bower/Ceres Solutions/Clay City		0	0	0
Clay	Bower/Ceres Solutions/Brazil		0	0	0
Clinton	Emanuel/Boone Co. CES	1	1	1	0
Clinton	Foster/Purdue Entomology	0	0	2	1
DeKalb	Hoffman/ATA Solutions			87	174
Dubois	Eck/Purdue CES	0	1	0	0
Elkhart	Kauffman/Crop Tech Inc.		35	156	150
Fayette	Schelle/Falmouth Farm Supply Inc.	1	1	0	
Fountain	Mroczkiewicz/Syngenta	41	31	14	4
Fulton	Jenkins/N. Central Coop/Talma	379	385	167	76
Fulton	Ranstead/N. Central Coop/Rochester			309	46
Gibson	Schmitz/Gibson Co. CES	0	0	2	
Hamilton	Campbell/Beck's Hybrids	3	2	2	2
Hendricks	Nicholson/Nicholson Consulting	0	1	1	
Jasper	Overstreet/Purdue CES	438	410	304	237
Jasper	Ritter/Brodbeck Seeds	302	171	124	97
Jay	Boyer/Davis PAC	5	1	0	3
Jay	Shrack/Ran Del Agri Services	0	0	0	1
Jay	Temple/Jay County CES/Pennville	0	1	3	2
Jay	Temple/Jay County CES/Redkey	3	4	7	2

Jennings	Bauerle/SEPAC	0	0	0	1
Knox	Bower/Ceres Solutions/Vincennes		0	0	0
Knox	Bower/Ceres Solutions/Freelandville		0	0	
Kosciusko	Klotz/Etna Green	75	112	92	46
Lake	Kleine/Kleine Farms	0	4	41	11
Lake	Moyer/Dekalb Hybrids, Shelby	157	108	63	16
Lake	Moyer/Dekalb Hybrids, Schneider	246	151	101	93
LaPorte	Rocke/Agri-Mgmt Solutions, Wanatah	120	122	321	138
LaPorte	Smith/Co-Alliance/LaPorte	0	11	29	22
LaPorte	Smith/Co-Alliance/Fish Lake	6	20	109	107
LaPorte	Smith/Co-Alliance/Union Mills	15	19	122	100
LaPorte	Smith/Co-Alliance/LaCrosse	35	149	337	112
Marshall	Harrell/Harrell Ag Services		4	118	
Marshall	Klotz/SR 10 & SR 331	29	81	130	90
Marshall	Miller/North Central Coop			48	43
Miami	Early/Pioneer Hybrids	189	216	140	154
Newton	Moyer/Dekalb Hybrids, Lake Village	16	139	262	193
Porter	Leuck/PPAC	11	17	335	287
Pulaski	Capouch/M&R Ag Services	42	49		
Pulaski	Leman/North Central Coop	4	22	34	
Putnam	Nicholson/Nicholson Consulting	0	2	0	
Randolph	Boyer/DPAC	2	2	3	0
Rush	Schelle/Falmouth Farm Supply Inc.		0	0	
Shelby	Fisher/Shelby Co. Co-Op	0	0	0	
Shelby	Simpson/Simpson Farms	4	5	2	0
Starke	Capouch/M&R Ag Services	0	184		
Starke	David Wickert/Wickert Consulting	5	28	21	10
Starke	Larry Wickert/Wickert Consulting	136	292	185	16
St. Joseph	Barry/Helena	3	28	108	56
St. Joseph	Gary Battles	1	12	16	16
St. Joseph	Carbiener/Union Twp.	0	11	50	19
St. Joseph	Smith/Co-Alliance/Granger	7	46	87	69
St. Joseph	Smith/Co-Alliance/New Carlisle	0	3	69	93
Sullivan	Bower/Ceres Solutions/Farmersburg		0	0	0
Tippecanoe	Bower/Ceres Solutions/Sullivan		0	8	0
Tippecanoe	Bower/Ceres Solutions/Lafayette		15	25	24

Tippecanoe	Nagel/Ceres Solutions	1	1	6	
Tippecanoe	Obermeyer/Purdue Entomology	0	0	0	0
Tippecanoe	Westerfeld/Monsanto	2	3	0	
Tipton	Campbell/Beck's Hybrids	0	2	0	0
Vermillion	Bower/Ceres Solutions/Clinton		0	0	0
Wabash	Enyeart/North Central Coop	1	10	15	
Whitley	Richards/NEPAC	23	70	39	13
Whitley	Richards/NEPAC			182	101

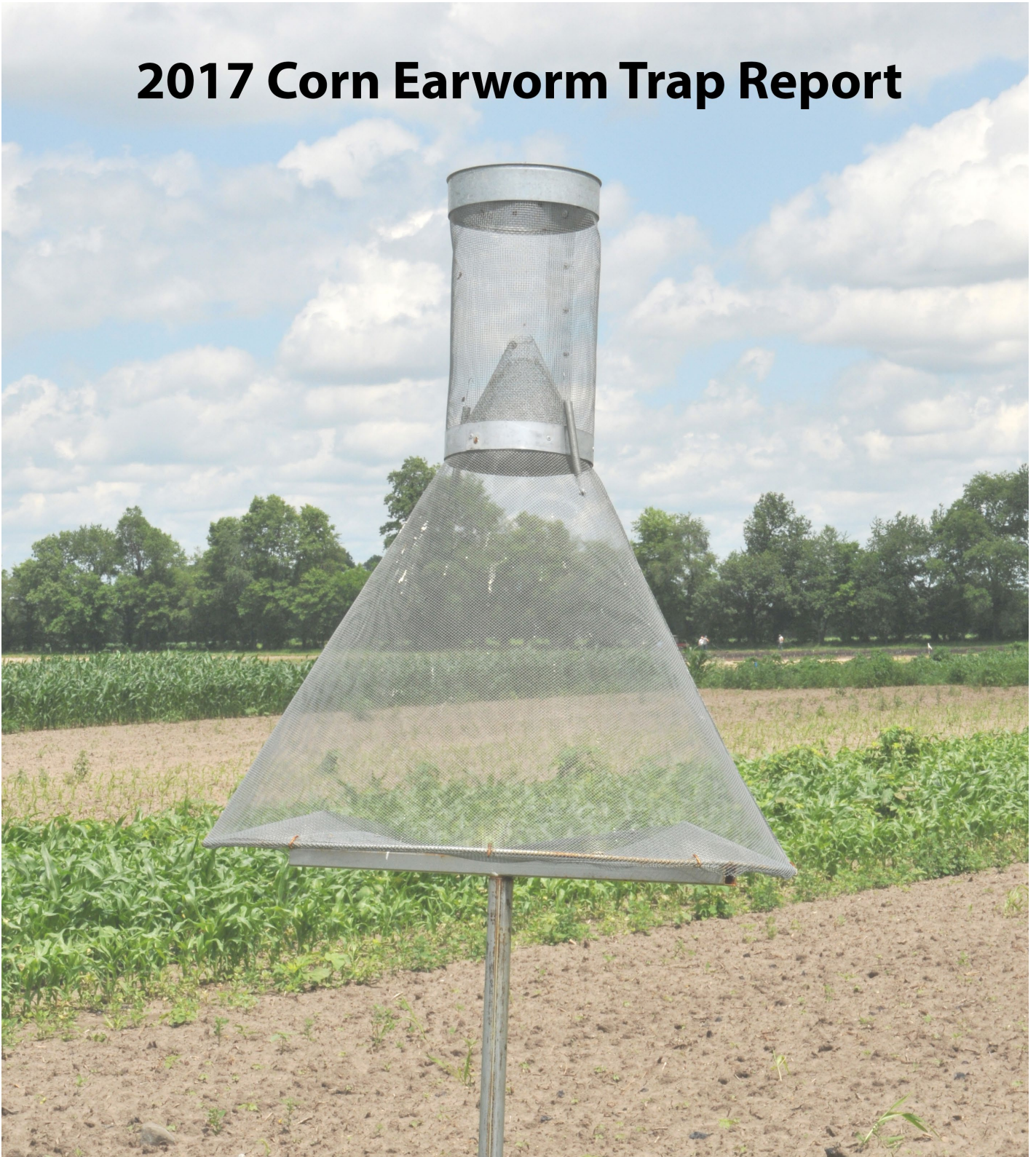
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## 2017 Corn Earworm Pheromone Trap Report – (*John Obermeyer*) -

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# 2017 Corn Earworm Trap Report



*Corn Earworm Trap Report*

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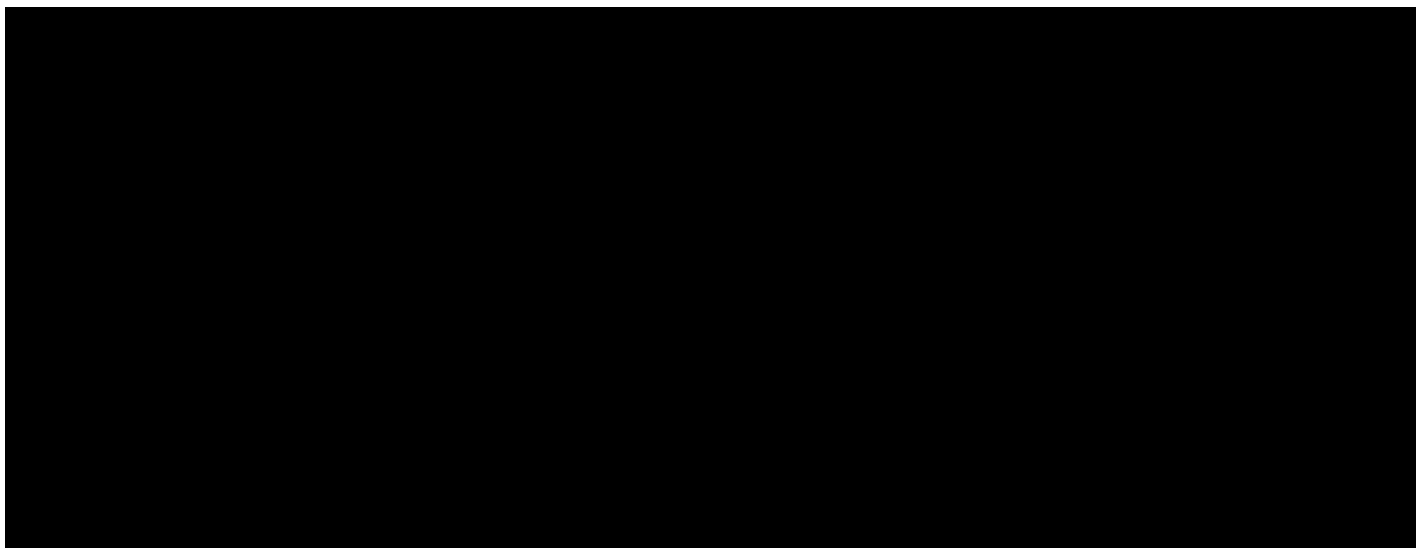


## **VIDEO: Soybean Leaf Sampling for Nutritional Needs – (*Shaun Casteel and John Obermeyer*) -**

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It is very important to select the correct soybean leaves when tissue sampling to determine nutritional needs during the growing season. The most recent, mature trifoliate leaf will provide the truest assessment of the plant's nutrition. This is usually the leaves from the third or fourth nodes from the top of the plant, depending on the development of the upper most trifoliate. If the upper most leaf is less than, or equal to, the size a quarter then pull the trifoliate leaf from the fourth node for your sample. However, if the upper most leaf is equal to, or greater than, the size of a half dollar, then chose the trifoliate leaf from the third node. For each sample submitted to a laboratory for analysis, pull 20-25 trifoliate leaves in the desired area, placed loosely in a paper bag marked with identifiers such as name, field, location, date, and growth stage of the soybean. Do not allow the leaves to remain moist, as they will mold quickly and ruin the sample.

If you are tissue sampling multiple times during the season, you should wait at least 10-14 days between samples. This will allow any past foliar fertilizer(s) applied to be incorporated into the plant and assessed. It will also test a new set of nodal leaves that have developed since the last sampling.







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## ***Southern Rust of Corn Confirmed in Kentucky – (Carl Bradley and Kiersten Wise, Kentucky Extension Plant Pathologists) -***

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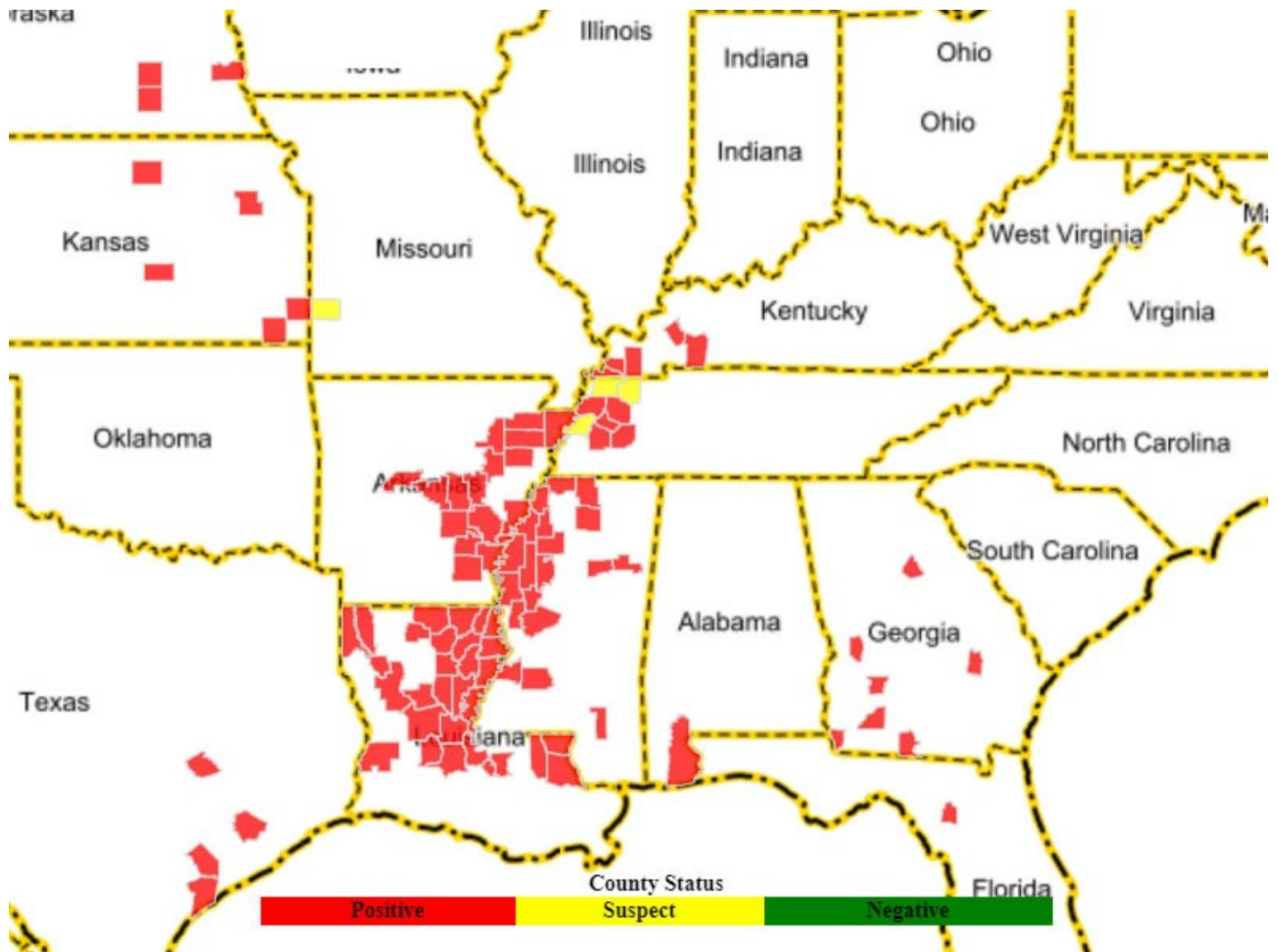
*Reprinted with permission from the Kentucky Pest News, July 18, 2017.*

Southern rust of corn, caused by the fungus *Puccinia polysora*, was confirmed by the University of Kentucky Plant Disease Diagnostic Laboratory (PDDL) this week on samples from Caldwell County and Graves County. This is the first confirmation of southern rust in Kentucky in 2017, and the impact of this finding for Kentucky corn farmers will depend on current crop growth stage.

Fields that are between tasseling (VT) and milk (R3) growth stages may benefit from a fungicide application if southern rust is present. If fields have already received a fungicide application, they should be scouted to determine disease severity prior to a second application. More details on symptoms and signs of southern rust and recommendations for fungicide use can be found in a previous Kentucky Pest News (KPN) article that can be accessed [here](#).

If you suspect you have southern rust in your field, work with local county Extension agents to submit samples to the PDDL for proper identification. Confirmations will be posted on the Integrated Pest Information Platform for Extension and Education (iPiPE) as discussed in a previous KPN article that can be accessed [here](#). On the map, red

counties/parishes indicate that southern rust has been confirmed by university/Extension personnel.



Confirmed findings of southern rust, July 18, source iPiPE .

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## Southern Rust Found on Corn in Indiana – *(Gail Ruhl and Tom Creswell) -*

On July 20, 2017, the Purdue Plant and Pest Diagnostic Laboratory (PPDL) microscopically confirmed Southern Rust (*Puccinia polysora*) on a corn leaf sample submitted from Parke county.

Orange spore pustules of Southern rust on corn develop predominantly on the top of the leaf—*as opposed to* the brownish - red spore pustules of common rust that develop on both upper and lower surfaces of the corn leaf.

For more information and images please refer to Purdue publication BP-82 : Common and Southern Corn Rusts

<https://www.extension.purdue.edu/extmedia/BP/BP-82-W.pdf>.

Although the location, color, and shape of the pustules can assist in the identification of the type of rust infection on corn leaves, **if you suspect you have Southern rust in your field, submit samples to the Purdue Plant and Pest Diagnostic Lab (PPDL) for proper identification.** We provide definitive, accurate, confirmation of Southern Rust by microscopic examination of the shape and size of the rust spores. The sample handling fee for a sample is \$11.00. Sample submission forms are available at:

[www.ppd.l.purdue.edu](http://www.ppd.l.purdue.edu).

Please feel free to contact us if you have questions.

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*Southern corn rust; orange spore pustules on top of corn leaf. (Photo Credit: Tom Creswell).*

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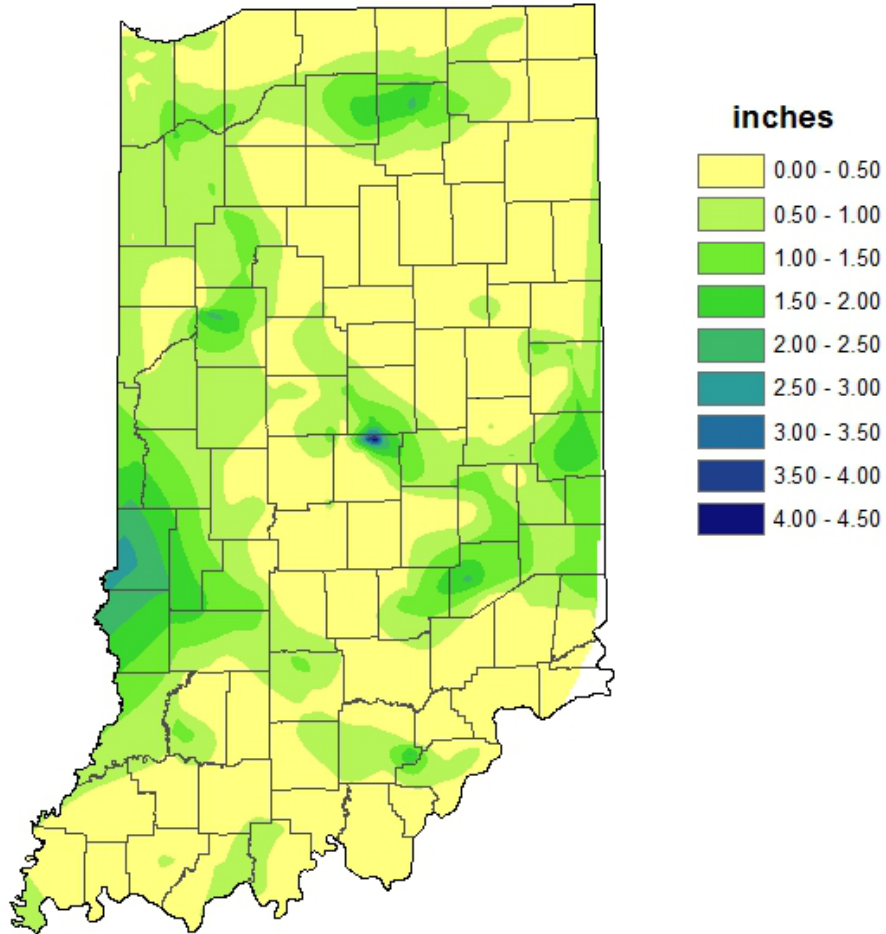
# WEATHER UPDATE

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## Precipitation

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# Total Precipitation Jul 13 - 19 2017 CoCoRaHS network (371 stations)



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

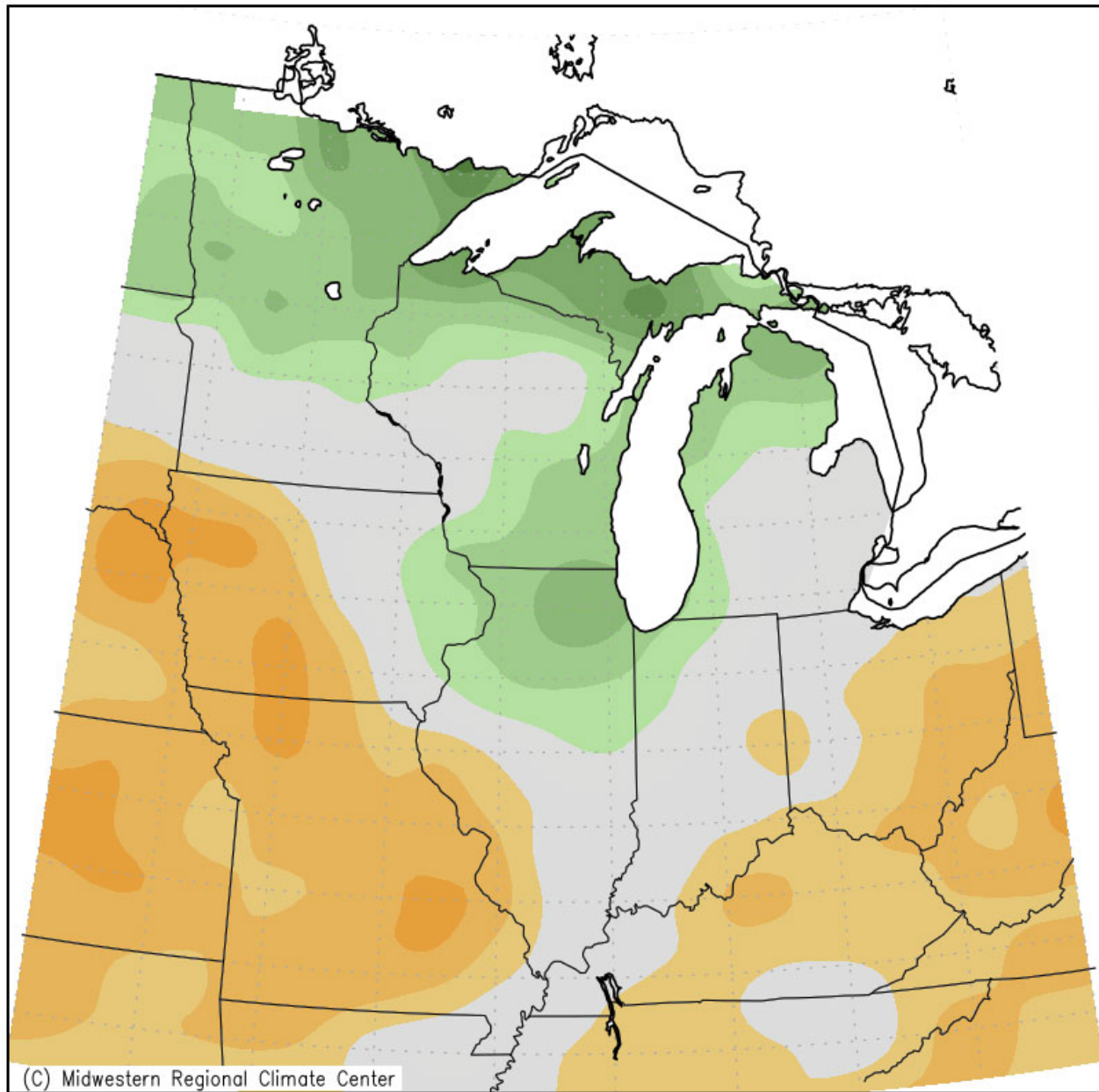
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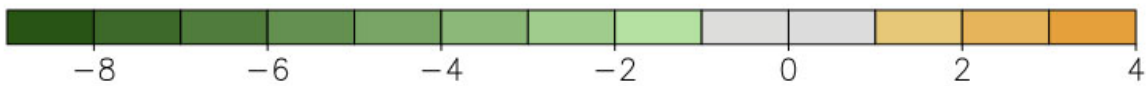
## Temperature

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# Average Temperature (°F): Departure from Mean July 12, 2017 to July 18, 2017



Mean period is 1981–2010.



Midwestern Regional Climate Center  
Illinois State Water Survey, Prairie Research Institute  
University of Illinois at Urbana–Champaign

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## THANKS FOR READING

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