



Purdue Cooperative Extension Service

August 13, 2010 - Issue 20

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## Insects, Mites, And Nematodes

**Yellow Butterflies Plentiful** - (Christian Krupke and John Obermeyer)

- Alfalfa butterflies are pleasing to look at, not pests.

While driving through the countryside, many have been greeted with the pleasing sight of yellow butterflies on and along roadsides near puddles of water or wet surfaces. This is the alfalfa butterfly, *Colias eurytheme*, also known as "sulfurs." These butterflies congregate in large numbers near sources of moisture and/or salt (puddles often leave salty deposits behind as they dry up). They are prevalent during mid-day, their peak mating time.

The larvae of these butterflies are referred to as the alfalfa caterpillar. This caterpillar is up to 1-1/2 inches long, has a velvety-smooth lime-green body with a white stripe on each of its sides. This caterpillar is commonly found in alfalfa, clover, and vetch, but it can occasionally be found defoliating soybean leaves. Though the numbers of butterflies may be numerous, this does not indicate an outbreak of caterpillars is soon to follow. These caterpillars are very susceptible to



Alfalfa caterpillar butterfly ("sulfur") feeding on velvetleaf flower

insect diseases that can rapidly bring their numbers down to very low levels. When this happens, it is referred to as an epizootic. Therefore, enjoy this beautiful late summer butterfly before they disappear.



Alfalfa caterpillar feeding on leaves



**Yellow Beans, Many Possibilities** - (*Christian Krupke and John Obermeyer*)

- Many factors, some in combination, cause soybean plants to discolor.
- Scout to determine that spider mites are not the primary cause for yellowing.

While driving through different areas of the state it is amazing to see the number of soybean fields exhibiting areas of yellow.

A number of factors can cause leaf yellowing. These include, but not limited to, soybean cyst nematode, nutrient deficiencies, poor nodulation, herbicide injury, diseases such as sudden death syndrome, compaction, etc. Spider mites may be present along with any of these other plant stressors and may or may not be causing the discolored foliage. In other words, it's the old chicken and egg dilemma. Stressed plants actually provide better nutrition for spider mites thus they thrive and quickly colonize areas or whole fields. The best spider mite control is to eliminate plant stress, and in the absence of timely rains, this is often easier said than done.

Before considering control, it is very important that spider mites be conclusively identified as the source of the problem. Shake some discolored soybean leaves over a white piece of paper. Watch for small dark specks moving about on the paper. Also look for very fine webbing on the undersides of the discolored leaves. Once spider mites have been positively identified in the damaged areas of the field, it is essential that the whole field be scouted to determine the range of infestation. Sample in at least five different areas of the field and determine whether the spider mites are present or not by using the "shake" method. Also look for the presence of diseased spider mites, darkened and shriveled mites. With the high humidity that we have experienced, fungal diseases can quickly spread throughout the population (epizootic). Some good news concerning our hot and muggy conditions!



Yellowed areas of a field...what is the problem?



Magnified view of a healthy and diseased spider mite





### Black Light Trap Catch Report - (John Obermeyer)

County/Cooperator	7/27/10 - 8/3/10							8/4/10 - 8/10/10						
	VC	BCW	ECB	WBC	CEW	FAW	AW	VC	BCW	ECB	WBC	CEW	FAW	AW
Dubois/SIPAC Ag Center	0	0	0	0	0	0	2	0	6	0	0	2	0	0
Jennings/SEPAC Ag Center	0	0	0	0	0	0	0							
Knox/SWPAC Ag Center	0	0	0	0	0	0	0	1	12	0	0	77	0	4
LaPorte/Pinney Ag Center	0	3	0	2	0	0	23	0	9	0	0	0	0	1
Lawrence/Feldun Ag Center	0	3	0	0	0	0	0	0	0	0	0	2	0	7
Randolph/Davis Ag Center	1	0	0	0	0	0	1	0	1	0	0	0	0	0
Tippecanoe/TPAC Ag Center	0	22	1	0	1	0	16	2	8	0	0	12	0	6
Whitley/NEPAC Ag Center	0	0	2	0	0	0	3							

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

## Bug Scout



“Look Bug Scout -- It is much too pretty to be a corn borer. Do you think it could be an alfalfa butterfly?”

**Western Bean Cutworm Adult Pheromone Trap Report**

**Week 1 = 6/18/10 - 6/23/10 Week 2 = 6/24/10 - 6/30/10 Week 3 = 7/1/10 - 7/7/10 Week 4 = 7/8/10 - 7/14/10**  
**Week 5 = 7/15/10 - 7/21/10 Week 6 = 7/22/10 - 7/28/10 Week 7 = 7/29/10 - 8/4/10 Week 8 = 8/5/10 - 8/11/10**

County	Cooperator	WBC Trapped							
		Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Adams	Kaminsky/ New Era Ag - Monroe		0	9	3	1	0	0	
Adams	Roe/Mercer Landmark - Pleasant Mills	0	1	6	5	0	0	0	0
Allen	Anderson/Syngenta - Churubusco	0	3	3	1	1	2		0
Allen	Gynn/Southwind Farms - Ft. Wayne	0	1	12	5	4	0	0	0
Allen	Hoffman/ATA Solutions - Monroeville	1	6	61	9	2	0	1	1
Benton	Babcock/Ceres Solutions - Boswell		1	2	5	6	0	0	0
Benton	Schellenberger/ Ceres Solutions - Earl Park	0	0	7	5	4			
Benton	Tabert/Pioneer - Oxford		10	22	30				
Clay	Bower/Ceres Solutions - Clay City			1	0	0	0	0	0
Clay	Bower/Ceres Solutions - Brazil	0	0	0	0	0	0	2	0
Dubois	Eck/Purdue CES - Jasper	0	0	0	0	0	0	0	0
Elkhart	Willard/Crop Tech Inc - Millersburg		0	54	59	7	0	0	
Fayette	Schelle/Falmouth Farm Supply - Falmouth	0	0	0	0	0	0	0	0
Fountain	Mroczkiewicz/Syngenta - Rob Roy	0	0	0	0	0	0	0	0
Fulton	Early/Pioneer - Fulton County			218	83	50			
Fulton	Jenkins/North Central Coop - Kewanna	0	19	178	32	2	2	2	4
Fulton	Jenkins/North Central Coop - Rochester	0	18	54	71	29	4	2	2
Fulton	Metzger/Pioneer - Bob Plot	7	97	269	366				
Fulton	Metzger/Pioneer - Scot East	1	13	61	122				
Fulton	Metzger/Pioneer - Zechiel Dads	2	12	163	266				
Hamilton	Beamer/Beck's Hybrids - Atlanta	0	0	3	0	0	0	0	0
Hamilton	Beamer/Beck's Hybrids - Sheridan	0	0	1	0	0	0	0	0
Hendricks	Nicholson/Nicholson Consulting - Danville	0	5	8	2	1	0	0	0
Jasper	Childs/Heritage Seed - Fair Oaks	3	40	240	506	366	16	10	2
Jasper	Childs/Heritage Seed - Green	2	47	384	661	70	2	0	0
Jasper	Mclwain/Pioneer - Mt. Ayr			635	366	57	16		0
Jasper	Nagel/Ceres Solutions - Fishers	10	394	240	45	31	21	2	
Jasper	Nagel/Ceres Solutions - Game Preserve 1	0	2	3	3	1	0	0	
Jasper	Nagel/Ceres Solutions - Game Preserve 2	0	0	17	16	1	0	0	
Jasper	Nagel/Ceres Solutions - Hanging Grove	0	6	31	13	0	0	0	
Jasper	Nagel/Ceres Solutions - Kniman 1	0	15	45	11	2	1	0	
Jasper	Nagel/Ceres Solutions - Kniman 2	0	74	146	26	20	8	1	
Jasper	Nagel/Ceres Solutions - Moffit	0	16	95	2	0	0	0	
Jasper	Nagel/Ceres Solutions - North Marion	0	6	32	4	0	0	0	
Jasper	Nagel/Ceres Solutions - Parr	0	36	58	8	2	0	0	
Jasper	Nagel/Ceres Solutions - Pleasant Ridge	0	14	124	52	9	0	0	
Jasper	Overstreet/Purdue CES - Wheatfield		0	0	235	238	18	2	2
Jasper	Strange/Pioneer - Rensselaer		61	289	480	126	28		0
Jasper	Zacher/Ceres Solutions - Roselawn	0	108	506	136	12			
Jay	Shrack/RanDel AgriServices - Dunkirk	0	0	2	1	0	0	0	0
Jennings	Bauerle/SEPAC - North Vernon	0	0	0	0	0	0	0	0
Knox	Bower/Ceres Solutions - Westphalia	0	0	2	0	0	0	0	0
Knox	Bower/Ceres Solutions - Vincennes	1	1	1	0	0	0	14	0

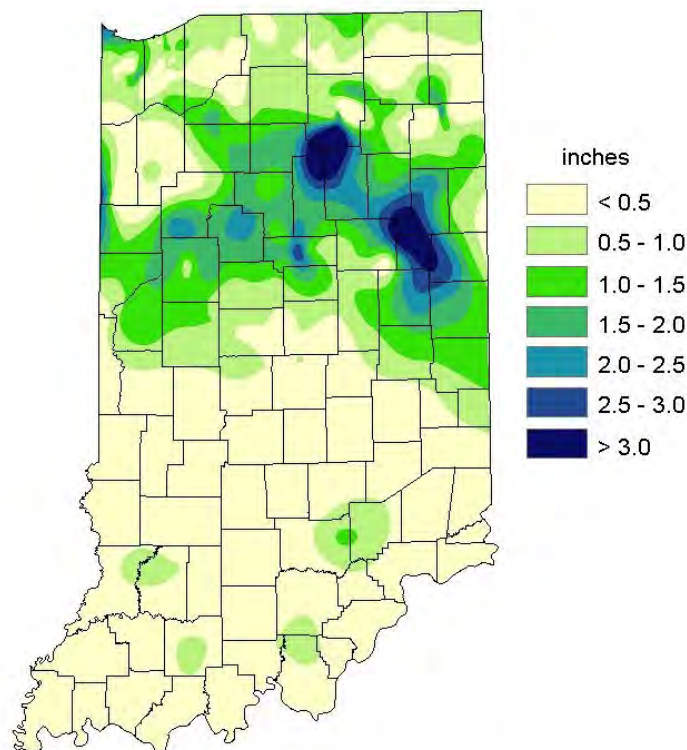
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County	Cooperator	WBC Trapped							
		Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Knox	Cardinal/SWPAC - Vincennes N		0	0	0	0	0	0	0
Lake	Kleine/Kleine Farms - Cedar Lake	0	16	104	30	9	11	6	4
Lake	Moyer - Schneider		1	205	320	12	3	1	0
Lake	Moyer - Shelby		4	146	259	24	1	0	1
LaPorte	Rocke/Agri Mgmt Solutions - Wanatah SE	155	306	480	152	146	43	11	1
LaPorte	Rocke/Agri Mgmt Solutions - LaCrosse E	1	6	411	118	192	16	4	1
LaPorte	Werner/Pioneer - Hanna			212	125	130	24		0
Marshall	Barry/North Central Co-op - Bremen	0	6	157	202	150			
Marshall	Miller/North Central Co-op - Inwood	0	67	364	130	3			
Miami	Early/Pioneer - Miami County			25	149	62			
Newton	Gibson/Pioneer - Lake Village 600 N	0	10	228	361				
Newton	Gibson/Pioneer - Morocco, Division Rd.	0	13	221	107				
Newton	Gibson/Pioneer - Town of Morocco 300 S	0	0	122					
Newton	Moyer - Lake Village		3	91	40	17	3	0	0
Newton	Padgett/Pioneer - US 41 & 1000 S Kentland			141	157	89			
Newton	Ritter/Purdue CES - Morocco		0	42	15	0	2	0	
Porter	Leuck/PPAC - Wanatah N	7	2	250	155	26	0	0	0
Porter	Rocke/Agri Mgmt Solutions - Westville W	1	1	63	125	347	105	35	1
Pulaski	Metzger/Pioneer - Butch Farm	5	41	85	37				
Pulaski	Miller/Pioneer - SR 119 100 W	9	113	292	214	22			
Pulaski	Nagel/Ceres Solution - Francesville	0	0	10	10	17	0	0	
Pulaski	Nagel/Ceres Solution - Medaryville E	0	30	211	89	119	10	0	
Pulaski	Nagel/Ceres Solution - Medaryville SW	0	1	14	16	3	1	0	
Pulaski	Roberts/Pioneer - 400 E & 200 N	7	569	674	478	188			0
Pulaski	Roberts/Pioneer - 675 E 900 S	0	3	101	109	37			0
Pulaski	Rocke/Agri Mgmt Solutions - Francesville E	1	7	115	135	184	23	6	1
Pulsaki	Rocke/Agri Mgmt Solutions - Medaryville E	10	85	268	139	617	20	10	2
Pulaski	Rocke/Agri Mgmt Solutions - SR 39 & 14	0	2	58	71	168	6	4	0
Pulaski	Rocke/Agri Mgmt Solutions - Winamac NE	0	73	524	246	160	5	2	2
Putnam	Nicholson/Nicholson Consulting - Greencastle	0	1	1	0	0	1	0	0
Randolph	Boyer/DPAC - Farmland	0	0	3	2	0	0	0	0
Rush	Schelle/Falmouth Farm Supply - Carthage	0	0	0	0	0		0	0
Starke	Pflugshaupt/Pioneer - Hamlet		121	314	206	44	5	2	0
Starke	Wickert/Wickert Agron Svc. - N. Judson	2	5	11	9	10	3	0	0
Sullivan	Bower/Ceres Solutions - Sullivan	0	0	0	2	0	3	0	0
Tippecanoe	Bower/Ceres Solutions - West Point	2	20	4	0	1	1	0	0
Tippecanoe	Nagel/Ceres Solutions - Otterbein	0	0	8	2	3	0	0	0
Tippecanoe	Obermeyer/Purdue Entomology - Agry Farm	1	1	5	1	4	0	0	0
Tippecanoe	Schroeder/Monsanto Research Farm - W. La-fayette		4	19	8	6	0	0	0
Warren	Brutus/Dairyland Seed - Pine Village		0	0	1	2			0
White-Cass	Anderson/Pioneer - White-Cass County Line			131	0				

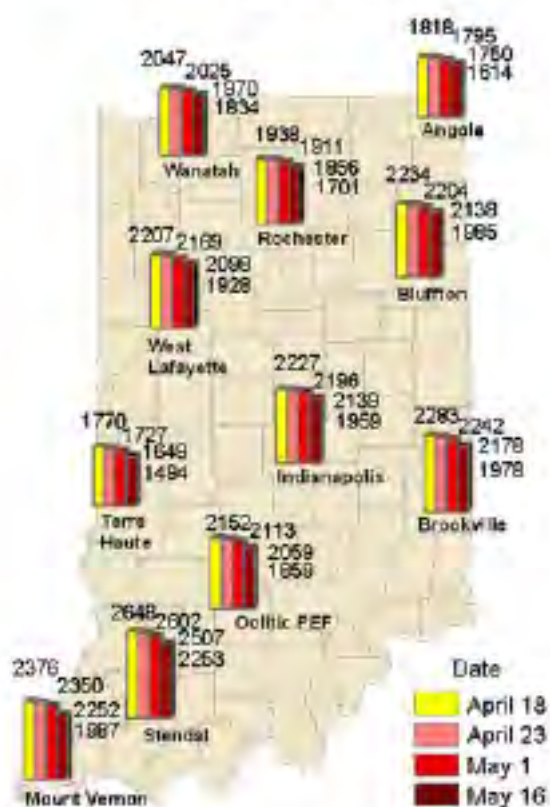
# Weather Update

## Total Rainfall August 04 – August 10, 2010 CoCoRaHS Network (371 stations)



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

## Accumulated Growing Degree Days (86/50) By Date of Planting



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