



Purdue Cooperative Extension Service

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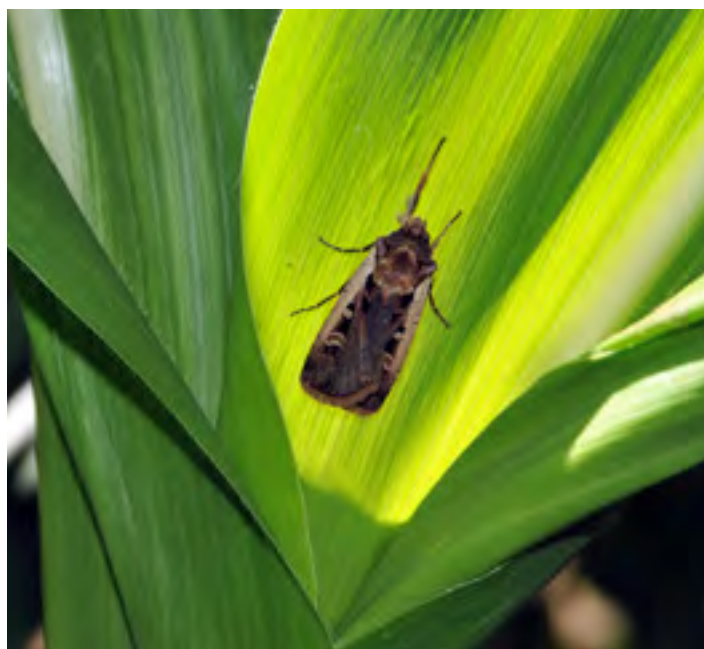
Insects, Mites, And Nematodes

Western Bean Cutworm Flight Continues, Questions Abound – (Christian Krupke and John Obermeyer)

- Peak moth flight is happening now.
- As corn pollinates, eggs masses are harder to find... female moths are quite choosy!

Peak western bean cutworm moth flight has occurred at many trapping locations, but certainly not all (see following trap counts). This indicates that there are more moths to emerge, mate, and deposit eggs in fields of their choosing. A current common frustration of pest managers is determining where egg masses are being deposited once corn has begun pollinating, especially when nearby trap counts are still high. Egg deposition is preferred in pre-tassel corn, but most corn has now advanced into reproductive stages. Because female moths seem to have a strong affinity to certain hybrids (e.g., color, architecture, etc.) or situations (e.g., growth stage, soil type, stress, etc.) they may pass over nearby fields to deposit eggs. This suggests that eggs masses will be distributed in fields further away and/or clumped in an area of a field to their liking (e.g., delayed maturity). In other words, scouting will be more challenging.

Dan Childs, Heritage Seeds, has been in the midst of the battle with western bean cutworm in the northwestern counties. He has allowed us to share the following experiences/observations that he sent to us this week. We think



Western bean cutworm moth resting in the whorl

that these bulleted items will answer many of your questions and/or confirm your encounters. Please share with us your insights as you gain experience with trapping, scouting, and treating for this pest.

- The first week, caught many moths in the light, sandy areas of the region, but now catching moths outside this zone or the “fringe” areas or “good dirt”
- As of July 15, moth numbers have dramatically declined in previously high-catch traps.
- Sometimes find moths resting down in the whorl of a pre-tasseled plant during daytime hours
- Best chance to find egg masses is in corn that is shoulder high (tassel in whorl)
- Very few egg masses found in fields that were pollinating
- We can find white, cream, purple and hatched egg masses all in the same field
- Egg masses almost always laid on the upper leaf surface, sometimes they can be found on the sheath beneath an upper leaf
- Egg masses typically found on young leaves that are sticking upward, not fully out or mature leaves
- Egg masses typically found in groups; 3 to 4 masses in 10-15 plants, then nothing for a long length of row
- Many times will not find any egg masses in the field that contains the trap, which had very high counts, but, down the road may find egg masses in a field over threshold
- Continuous corn tends to have more egg masses, high trap counts
- In fields with corn that is tall and pollinating, may find egg masses in the end rows or areas bordering a wet hole where the corn is shorter and under more stress
- Some fields finding various predator insects, such as lady beetles, lacewings, and small flies and wasps – probably parasites of the WBC eggs, but not present in large numbers



Lacewing larva feeding on eggs



Lady beetle devouring an egg mass



Scarring or window-pane damage by larval feeding in the whorl



This egg mass has been eaten by a predator



Tiny parasitic wasp on egg mass



Black Light Trap Catch Report - (John Obermeyer)

County/Cooperator	6/29/10 - 7/5/10							7/6/10 - 7/12/10						
	VC	BCW	ECB	WBC	CEW	FAW	AW	VC	BCW	ECB	WBC	CEW	FAW	AW
Dubois/SIPAC Ag Center	0	0	0	0	0	0	0							
Jennings/SEPAC Ag Center	0	0	0	0	0	0	3	0	0	0	0	0	0	1
Knox/SWPAC Ag Center	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LaPorte/Pinney Ag Center	0	4	0	35	0	0	9	0	0	0	73	0	0	0
Lawrence/Feldun Ag Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Randolph/Davis Ag Center	0	0	0	0	0	0	4							
Tippecanoe/TPAC Ag Center	2	29	0	1	0	0	0	2	7	0	4	0	0	13
Whitley/NEPAC Ag Center														

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



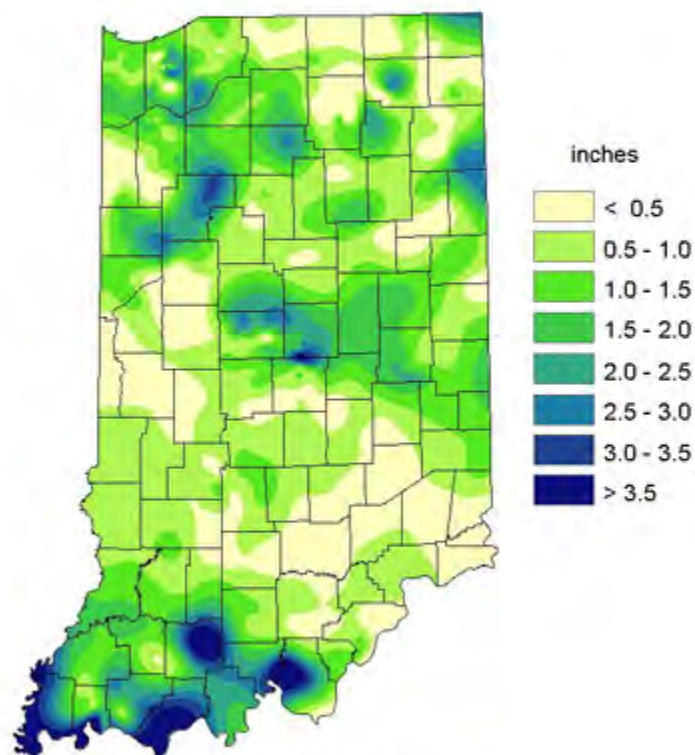
Western Bean Cutworm Adult Pheromone Trap Report
Week 1 = 6/18/10 - 6/23/10 Week 2 = 6/24/10 - 6/30/10 Week 3 = 7/1/10 - 7/7/10 Week 4 = 7/8/10 - 7/14/10

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

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County	Cooperator	WBC Trapped			
		Week 1	Week 2	Week 3	Week 4
Knox	Bower/Ceres Solutions - Westphalia	0	0	2	0
Knox	Bower/Ceres Solutions - Vincennes	1	1	1	0
Knox	Cardinal/SWPAC - Vincennes N		0	0	0
Lake	Kleine/Kleine Farms - Cedar Lake	0	16	104	30
Lake	Moyer - Schneider		1	205	320
Lake	Moyer - Shelby		4	146	259
LaPorte	Rocke/Agri Mgmt Solutions - Wanatah SE	155	306	480	152
LaPorte	Rocke/Agri Mgmt Solutions - LaCrosse E	1	6	411	118
LaPorte	Werner/Pioneer - Hanna			212	125
Marshall	Barry/North Central Co-op - Bremen	0	6	157	202
Marshall	Miller/North Central Co-op - Inwood	0	67	364	130
Miami	Early/Pioneer - Miami County			25	149
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
Newton	Padgett/Pioneer - US 41 & 1000 S Kentland			141	157
Newton	Ritter/Purdue CES - Morocco		0	42	
Porter	Leuck/PPAC - Wanatah N	7	2	250	155
Porter	Rocke/Agri Mgmt Solutions - Westville W	1	1	63	125
Pulaski	Metzger/Pioneer - Butch Farm	5	41	85	37
Pulaski	Nagel/Ceres Solution - Francesville	0	0	10	10
Pulaski	Nagel/Ceres Solution - Medaryville E	0	30	211	89
Pulaski	Nagel/Ceres Solution - Medaryville SW	0	1	14	16
Pulaski	Roberts/Pioneer - 400 E & 200 N	7	569	674	478
Pulaski	Roberts/Pioneer - 675 E 900 S	0	3	101	109
Pulaski	Rocke/Agri Mgmt Solutions - Francesville E	1	7	115	135
Pulsaki	Rocke/Agri Mgmt Solutions - Medaryville E	10	85	268	139
Pulaski	Rocke/Agri Mgmt Solutions - SR 39 & 14	0	2	58	71
Pulaski	Rocke/Agri Mgmt Solutions - Winamac NE	0	73	524	246
Putnam	Nicholson/Nicholson Consulting - Greencastle	0	1	1	0
Randolph	Boyer/DPAC - Farmland	0	0	3	2
Rush	Schelle/Falmouth Farm Supply - Carthage	0	0	0	0
Starke	Pflugshaupt/Pioneer - Hamlet		121	314	
Starke	Wickert/Wickert Agron Svc. - N. Judson	2	5	11	9
Sullivan	Bower/Ceres Solutions - Sullivan	0	0	0	2
Tippecanoe	Bower/Ceres Solutions - West Point	2	20	4	0
Tippecanoe	Nagel/Ceres Solutions - Otterbein	0	0	8	2
Tippecanoe	Obermeyer/Purdue Entomology - Agry Farm	1	1	5	1
Tippecanoe	Schroeder/Monsanto Research Farm - W. Lafayette		4	19	8
Warren	Brutus/Dairyland Seed - Pine Village		0	0	1
White-Cass	Anderson/Pioneer - White-Cass County Line			131	0
Whitley	Walker/NEPAC - Columbia City	0	1	29	9

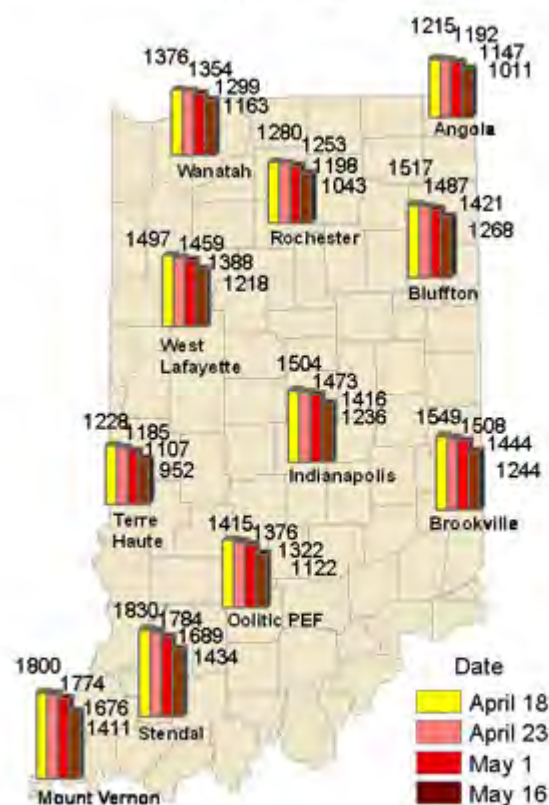
Weather Update

Total Rainfall
July 7 – July 13, 2010
CoCoRaHS Network
(399 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>