

WISCONSIN PEST BULLETIN

Timely crop pest news, forecasts, and growing season conditions for Wisconsin



STATE OF WISCONSIN DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION PLANT INDUSTRY BUREAU
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WEATHER & PESTS

Another week of warm, favorable weather accelerated fieldwork and summer crop development. Mostly dry, calm conditions prevailed, except on Monday evening and Tuesday morning when showers and storms developed statewide. Some of the storms brought large hail, damaging winds, and an inch or more of rain to a few localities. The rainfall caused only brief delays in harvesting of third crop alfalfa, oats and sweet corn before dry, less humid weather returned for the remainder of the week. According to the Wisconsin Crop Progress report for the period ending August 22, condition ratings for the state's corn and soybeans declined slightly from the previous week due to lack of significant rain. While the early-week precipitation was not enough to alleviate soil moisture deficits in the southern, central and east-central counties, it is expected to improve prospects for summer crop yields in most areas of the state.

LOOKING AHEAD

CORN ROOTWORM: Surveys of corn in the southern, central and east-central areas show a two- to five-fold increase in beetle counts as compared to 2010. The most drastic increase thus far was found in the south-central district where the average count escalated from 0.3 to 1.4 per plant. The unexpected abundance of beetles this

season suggests that corn producers will need to consider crop rotation or another form of control for rootworm management in 2012.

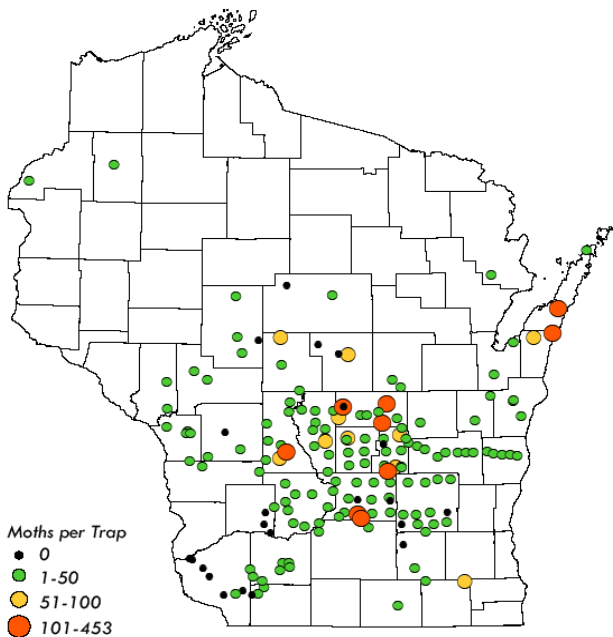
CORN EARWORM: Migrants continue to appear in the south-central and central areas. Counts during the past week ranged from 1-250 per trap, with the highest number of moths being registered in the Sun Prairie trap. The latest activity indicates that routine scouting and control regimens in sweet corn should be maintained until harvest.

SOYBEAN APHID: Densities remain at low to moderate levels of less than 103 aphids per plant, according to surveys conducted from August 18-24. The relatively low populations this month can be attributed to treatment of fields in a few instances, and the combination of natural enemies and weather-related factors in most cases. Review of the survey data indicates that approximately 19% of sites have been sprayed for aphids since early August. Some soybean fields in the R4-R5.5 stages may still qualify for treatment, but most sites are beyond the R5.5 stage now and chemical control is no longer advantageous.

WESTERN BEAN CUTWORM: The seventh annual trapping survey has thus far documented a 60% decrease in counts in the state, from 10,807 last season to 4,365 in 2011. A few moths persist in the east-central and north-

ern areas, but the flight has effectively ended. Trap counts for the period of June 15-August 24 are shown below.

2011 Western Bean Cutworm Trap Counts



Moths per Trap
 ● 0
 ● 1-50
 ● 51-100
 ● 101-453

Wisconsin Department of Agriculture, Trade and Consumer Protection



DEGREE DAYS JANUARY 1 - AUG 24

LOCATION	50°F	2010	NORM	48°F	40°F
Dubuque, IA	2413	2614	—	2228	3793
Lone Rock	2318	2561	—	2077	3687
Beloit	2442	2733	—	2209	3839
Madison	2261	2541	2191	2061	3601
Sullivan	2254	2593	2238	2068	3592
Juneau	2178	2492	—	2001	3477
Waukesha	2029	2382	—	2009	3297
Hartford	2028	2338	—	2014	3274
Racine	1972	2354	—	1963	3226
Milwaukee	1957	2286	2051	1955	3189
Appleton	1987	2325	2047	1980	3213
Green Bay	1884	2172	1973	1961	3083
Big Flats	2003	2324	—	1942	3252
Hancock	2037	2356	2150	1963	3291
Port Edwards	1981	2276	2071	1948	3213
La Crosse	2278	2562	2379	2108	3627
Eau Claire	2082	2350	2151	2050	3347
Cumberland	1862	2126	2054	1882	3075
Bayfield	1521	1711	1618	1591	2635
Wausau	1818	2096	1980	1855	3000
Medford	1835	2087	1796	1850	3019
Crivitz	1777	2067	—	1840	2950
Crandon	1652	1889	1598	1680	2782

Method: ModifiedB50; Sine48; ModifiedB40 as of Jan 1, 2011.
 NORMALS based on 30-year average daily temps, 1971-2001.

FORAGES

POTATO LEAFHOPPER: Counts are below economic levels in most fields, seldom exceeding 1.6 per sweep. Some alfalfa acreage in the northwest, central and west-central areas is exhibiting moderate to severe yellowing, but in all instances, the symptoms cannot be attributed to leafhoppers since counts were below established economic thresholds. Other probable causes include nutrient deficiency, moisture stress, late-summer diseases, or a combination of these factors. Nymphs were collected in 60% of surveyed fields, suggesting that reproduction may continue into September.

PLANT BUG: Mixed populations of tarnished and alfalfa plant bugs are still very common in alfalfa. Counts vary from 0.3-3.1 per sweep, with an average of 1.7. Plant bug nymphs continue to appear in sweep net collections.

CORN

EUROPEAN CORN BORER: The treatment window for second generation larvae remains open for one more week in the southeastern and central counties. Final

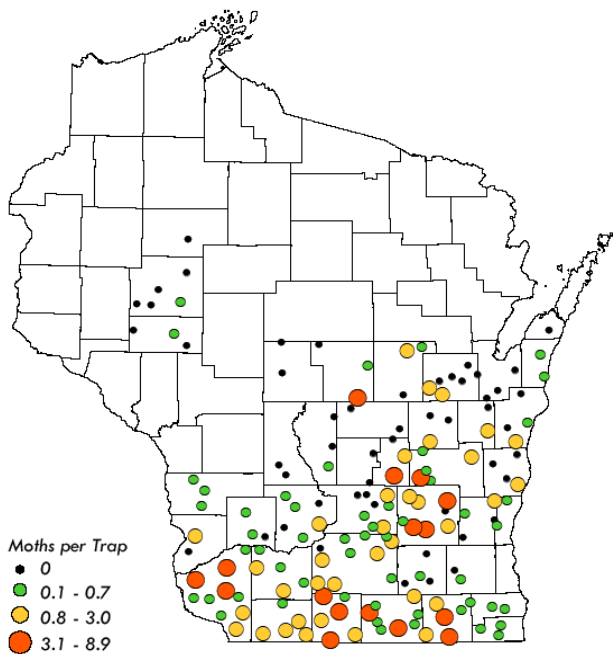
inspections should be performed before degree day accumulations surpass 2,100 (base 50°F) and larvae begin boring into corn stalks. Due to the variability in development across the state, sweet corn growers are advised to inspect fields carefully and base control decisions on the specific conditions observed. Surveys show that second and third instar larvae predominate in the central and west-central areas, as far north as Chippewa Falls. Infestations affecting 4-26% of plants were observed in 14% of corn fields surveyed from August 18-24.


CORN ROOTWORM: The map on page 110 summarizes the preliminary results of the 2011 corn rootworm beetle survey conducted between August 4 and 25. Populations in the southern and central areas have increased markedly from the historic low levels of 2010. The state average thus far is 1.0 beetle per plant, compared to only 0.3 last season. Average populations by district are 1.1 beetles per plant in the southwest, 1.4 per plant in the south-central, 0.7 per plant in the southeast, 0.5 per plant

in the east-central, and 0.8 per plant in the central area. Economic counts have been documented in 51 of the 158 (32%) sampled fields.

The abundance of rootworm beetles this month indicates larval injury potential in fields replanted to corn next year. A beetle count of 0.75 per plant from late July through early September suggests the same field is at elevated risk for economic damage by rootworm larvae in 2012.

Preliminary Corn Rootworm Survey Results



Wisconsin Department of Agriculture, Trade and Consumer Protection 

CORN EARWORM: Migratory moths continue to arrive in the state. Counts at three locations in Dane and Wood counties increased to moderate levels, while numbers at nine other sites decreased or remained the same as the week before. The trap count at Sun Prairie declined from 285 to 250 moths, which is still very high and should ensure that larval populations persist into September. As stated last week, all susceptible sweet corn fields should be closely monitored until harvest. Moth counts during the last reporting period were as follows: Coon Valley 12, S Cottage Grove 27, N Cottage Grove 44, East Troy 1, Hancock 40, Janesville 4, Keyeser 40, Madison 40, Manitowoc 0, Marshfield 57, Prairie du Chien 0, N Sun Prairie 250, and Wausau 3.

WESTERN BEAN CUTWORM: Larval infestations were noted in Chippewa, Dunn, Eau Claire and Pepin counties

in the past week. An exceptional corn field near Eau Claire was 12% infested with 1-2 larvae (½-1¼ inches long) per ear, while infestation rates in other fields were lower and ranged from 2-5%. In all instances, the larvae were located in the ear tips, where control is virtually impossible.



Western bean cutworm larva

Krista Hamilton DATCP

SOYBEANS

JAPANESE BEETLE: Soybean fields in Chippewa, Dane, Eau Claire, Kenosha, Rock and Walworth counties reportedly were treated for this insect in the past two weeks. Control results have been unsatisfactory in many fields. Beetles are still numerous in crops, orchards and residential areas.



Japanese beetles feeding on soybean leaf

Krista Hamilton DATCP

SOYBEAN APHID: Results from the summer survey show that soybean aphid pressure has been generally very low

this season. The survey was conducted in two separate field intervals, the first from July 18-August 3 and the second from August 11-24. During the July segment, 99% of sampled fields contained non-economic populations of 101 per plant or less, and only one Portage County field had an economic count of 450 per plant. Densities in August were similar, with 100% of fields showing low to moderate counts of less than 103 aphids per plant.

Contrary to these results, aphid populations apparently have increased to economic levels in some areas, since about 19% of survey sites appear to have been treated this month. This suggests that about 1/5 of the state's soybean fields developed economic aphid infestations this year. The 2011 state average density was extremely low at only 12 aphids per plant, which compares to 16 in 2010, 53 in 2009, 72 in 2008, 164 in 2007, 69 in 2006, 118 in 2005, 11 in 2004, and 758 in 2003.



Soybean aphids

Krista Hamilton DATCP

GREEN CLOVERWORM: Larvae are widely distributed throughout the state again this year. Defoliation levels in the central, west-central and northwestern counties range from 5-10%, which is well below the 35% threshold for soybeans in the seed-fill stage.

FRUITS

APPLE MAGGOT: Emergence has increased in apple orchards since mid-August. Growers are cautioned not to cease monitoring prematurely. Approximately 65 flies were captured on red ball and yellow sticky board traps in Bayfield, Chippewa, Columbia, Dane, Fond du Lac, Ozaukee, Pierce and Polk counties during the period of

August 18-24. Apple maggot activity is expected to continue until 2,800 degree days (base 50°F) are surpassed.

SPOTTED TENTIFORM LEAFMINER: Levels of this pest have been relatively high since the third flight began in southern orchards in late July. Another larval generation should be anticipated based on the trap counts registered in the last two weeks.

OBLIQUEBANDED LEAFROLLER: Apple growers should continue to scout for larvae at points where fruits are in contact and where leaves are covering the fruit. Although late-season OBLR injury is usually subtle, large numbers of apples can be infested at this time of year. Once the larvae have bored into fruits, treatment is no longer effective. A conservative threshold of 1% fruit damage is recommended at this time.

VEGETABLES

CABBAGE LOOPER: Four moths were captured in the pheromone trap near Newburg in the last reporting period, for a cumulative total of only 17 moths this season. If these very low counts at this site are indicative, then a significant migration has not yet occurred in southeastern Wisconsin. It should be noted that trap counts from the southeast may not be representative of cabbage looper flights in other parts of the state since weather patterns this month have favored migration of other out-of-state crop pests such as the corn earworm.

FALL ARMYWORM: Low numbers of this late-season pest have been registered at the Janesville, Mazomanie, Prairie du Chien and Sparta trap locations in the past three weeks. Fall armyworm moths seldom arrive in Wisconsin in damaging numbers, but the larvae occasionally appear in corn where they can be mistaken for the corn earworm. Fall armyworm larvae have a lateral stripe and are usually light brown or black in color, whereas the corn earworm larva may be green, yellow, pink or tan.

NURSERY & FOREST

LACE BUG: Hawthorns and burr oaks in a Jefferson County nursery were severely damaged by this pest. The lace bug family consists of at least 27 species that feed on deciduous trees and shrubs. Most exhibit specific host preferences. The hawthorn lace bug, for instance, feeds

exclusively on hawthorn. Damage begins as whitish-yellow leaf stippling that progresses to bronzing and early leaf drop under heavy lace bug pressure. Other signs of infestation include dark, varnish-like excrement and cast skins on the undersides of leaves. Injury is often most noticeable from mid- to late summer. Heavy feeding can reduce aesthetic quality, but normally does not harm the tree.



Hawthorn lace bug damage to hawthorn

Liz Meils DATCP

POPLAR AND WILLOW BORER: Nursery inspectors report that new adults have begun emerging in Dane County nurseries, where extensive damage to quaking aspens was noted in the past week. Preventive treatments should be applied while the weevils are active, either now or in early spring. Damage from this pest is primarily caused by the wood-boring larvae, which excavate long galleries in alder, birch, poplar and willow trees, expelling sawdust from the tree as they feed. Larval tunneling girdles trees and results in cracking and breakage. Attacks are most common in stems 2.5 to 10.0 cm in diameter. All nursery stock infested with this borer must be removed from sale and destroyed.

OAK TATTERS: Oaks in the white oak group, including white, burr and swamp white, in a Dane County nursery were showing lacy, tattered leaves characteristic of this disorder. Some of the affected leaves were also smaller in size and lighter in color than normal foliage. Oak tatters appears at leaf emergence and many affect all sizes and ages of trees. The specific cause is unknown, although environmental stress and herbicide drift have been implicated. Most oaks eventually produce a new flush of healthy replacement leaves. Adequate watering, mulching and fertilizing are all recommended to minimize tree stress and reduce the incidence of tatters.



Oak tatters

Liz Meils DATCP

WEEDS

VOLUNTEER CORN: Analysis of survey data from 541 soybean fields suggests that the incidence of volunteer corn in soybeans has increased in the past two years. Surveys in 29 counties found varying rates of corn infestation at 54% of the sites checked, which compares to 43% when the survey was last conducted in 2009. These survey findings confirm that Wisconsin farmers are not controlling volunteer corn effectively. Growers of herbicide-tolerant corn (i.e. Roundup Ready, etc.) this season will need to rotate to an herbicide-tolerant soybean variety with different resistance traits, or use another management tactic such as tillage or an additional herbicide application in 2012, to avoid volunteer corn problems.

VELVETLEAF: The seeds beginning to mature in field crops across the state are favored by fall tillage and may persist in the soil for more than a decade. Additions to the seedbank can be reduced this year by delaying tillage until next spring, to allow for fall and winter seed predation. Shallow tillage early in spring is advised for fields with significant velvetleaf pressure since this process triggers germination, making more plants susceptible to post-emergence herbicides. The velvetleaf emergence period extends for 8-10 weeks, so fields with velvetleaf problems usually require a follow-up inspection to ensure the efficacy of herbicide treatments.

APPLE INSECT & BLACK LIGHT TRAP COUNTS AUGUST 18 - 24

COUNTY	SITE	STLM ¹	RBLR ²	CM ³	OBLR ⁴	OBLR ⁵	AM RED ⁶	YELLOW ⁷	GDD 50°F
Bayfield	Keystone	27	1	1	0	—	*0	*2	
Bayfield	Oriente	174	0	0	0	0	*0	0	
Brown	Oneida	810	42	13	26	—	0	0	
Chippewa	Chippewa Falls	0	0	7	7	4	*4	*0	
Columbia	Rio	17	0	0	1	—	*1	*0	
Dane	Deerfield	214	43	1	5	—	*18	*0	
Dane	Mt. Horeb	101	213	0	8	—	0	0	
Dane	McFarland	0	0	0	0	—	**20	—	
Dane	Stoughton	63	89	5	8	0	*0	**3	2115
Dane	West Madison	12	210	4	6	—	—	—	
Fond du Lac	Campbellsport	50	40	0	5	—	0	0	
Fond du Lac	Malone	—	—	—	—	—	—	—	
Fond du Lac	Rosendale	131	16	3	0	—	*1	*2	
Grant	Sinsinawa	—	—	—	—	—	—	—	
Green	Brodhead	0	35	1	1	0	0	0	
Iowa	Mineral Point	53	68	2	5	1	—	—	
Jackson	Hixton	—	—	—	—	—	—	—	
Kenosha	Burlington	250	50	7	3	—	5	0	1989
Marinette	Niagara	136	1	24	12	—	0	0	1667
Marquette	Montello	40	0	0	2	—	*0	*0	
Ozaukee	Mequon	75	—	6	6	—	*5	*0	2030
Pierce	Beldenville	—	—	—	—	—	—	—	
Pierce	Spring Valley	128	56	7	2	2	*0.5	*0	
Polk	Turtle Lake	892	22	4	32	—	**3	*0	
Racine	Raymond	843	42	7	5	—	*0	*0	
Racine	Rochester	—	—	9	4	—	—	—	
Richland	Hillpoint	124	45	4	15	0	—	—	
Sheboygan	Plymouth	—	—	—	—	—	—	—	
Walworth	East Troy	—	—	—	—	—	—	—	
Walworth	Elkhorn	—	—	—	—	—	—	—	
Waukesha	New Berlin	165	50	16	8	—	*0	*0	

¹Spotted tentiform leafminer; ²Redbanded leafroller; ³Codling moth; ⁴Obliquebanded leafroller EASTERN; ⁵Obliquebanded leafroller WESTERN; ⁶Apple maggot red ball; *Unbaited AM trap; **Baited AM trap; ⁷Apple maggot yellow board.

COUNTY	SITE	ECB ¹	TA ²	BCW ³	SCW ⁴	DCW ⁵	CE ⁶	CEL ⁷	WBC ⁸	FORL ⁹	VCW ¹⁰
Chippewa	Chippewa Falls	—	—	—	—	—	—	—	—	—	—
Columbia	Arlington	3	0	0	0	7	0	0	0	2	0
Dane	Mazomanie	—	—	—	—	—	—	—	—	—	—
Grant	Prairie du Chien	5	0	0	1	38	0	0	0	6	0
Manitowoc	Manitowoc	0	21	5	0	0	0	6	1	11	19
Marathon	Wausau	1	4	1	42	74	13	1	3	6	0
Monroe	Sparta	27	0	0	3	0	0	0	0	0	0
Rock	Janesville	1	3	1	0	0	0	2	0	15	0
Walworth	East Troy	0	1	0	1	33	1	1	0	6	0
Wood	Marshfield	24	7	0	16	17	8	3	0	7	0
Vernon	Coon Valley	4	12	2	1	21	0	3	0	6	0

¹European corn borer; ²True armyworm; ³Black cutworm; ⁴Spotted cutworm; ⁵Dingy cutworm; ⁶Corn earworm; ⁷Celery looper; ⁸Western bean cutworm; ⁹Forage looper; ¹⁰Variegated cutworm.