

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
2811 Agriculture Dr. Madison, WI 53718 • <http://pestbulletin.wisconsin.gov>

WEATHER & PESTS

After an extended period of below-normal temperatures, weather conditions again turned hot and humid. Daytime temperatures warmed to the high 80s and mid-90s, while overnight lows remained in the 60s to near 70. An approaching cold front mid-week produced scattered to numerous storms with light rainfall across the state, but the rain was unevenly distributed and conditions during the week were predominantly dry. Dryness has been pervasive in the last two months and summer crops statewide are increasingly exhibiting signs of moisture stress. Rainfall deficits are most acute in the northwest region where topsoil moisture ratings declined 16 points in the last week and are now 77% very short or short. The lack of significant precipitation has adversely affected forage, field and vegetable crops, and yield reductions are probable if the dry weather trend continues into September.

LOOKING AHEAD

CORN EARWORM: Migrants continue to arrive in the state. Counts during the past week ranged from 2-272 per trap, with the highest number of moths registered in the Byron area of Fond du Lac County. The latest activity suggests that scouting and control programs in sweet corn should be maintained until harvest.

WESTERN BEAN CUTWORM: Moth numbers have decreased to very low levels, signaling the end of the adult flight. The cumulative state count as of August 21 was 642 moths in 116 pheromone traps. Individual counts from the 2013 trapping survey are provided in the map on page 97. Monitoring network participants may remove their traps at this time.

CORN ROOTWORM: Preliminary results of the annual beetle survey show populations are comparable to or slightly lower than last year in the southern and central crop reporting districts. District averages thus far range from 0.2 beetle per plant in the central region to 0.8 per plant in the southeast and are similar to averages of 0.5-0.9 per plant in the same areas in 2012. The state average in 156 fields surveyed as of August 21 is 0.5 beetle per plant. A count of 0.75 or more beetles per plant in continuous corn indicates a heightened risk of root damage to non-Bt corn next season.

EUROPEAN CORN BORER: The treatment window for second generation larvae is expected to close next week in southwest, south-central and west-central Wisconsin. Management decisions must be made in the immediate future, before the caterpillars have bored into corn stalks and ears.

STRAWBERRY ROOT WEEVIL: These black beetles are reportedly entering homes in large numbers in scattered

southern and western Wisconsin locations. Although they are considered a nuisance by homeowners, the weevils are not damaging to the structure and do not breed indoors.



Strawberry root weevil

Phil Pellitteri UW-Madison

FORAGES

POTATO LEAFHOPPER: Alfalfa surveyed in Buffalo, Jackson, La Crosse and Trempealeau counties contained 0.1-1.8 adults and nymphs per sweep. The average was 0.7 per sweep, based on surveys in a limited number of fields. Economic counts of 2.0 or more per sweep were not observed in the past week or at any time this season.

PEA APHID: Populations of this forage pest increased earlier this month, but appear to have leveled off. Most fields sampled from August 16-21 contained fewer than three per sweep.

PLANT BUG: Mixed populations of tarnished and alfalfa plant bugs are still very common in alfalfa. Counts vary from 0.2-2.1 per sweep, with an average of 0.5. Plant bug nymphs continue to appear in sweep net collections.

CORN

CORN ROOTWORM: The annual survey of adult rootworms has been completed in five of the nine crop reporting districts. Examination of 156 cornfields across the southern and central areas indicates populations are slightly lower than last year, although individual fields in Columbia, Dunn, Grant, Green Lake, Lafayette, Rock

DEGREE DAYS JANUARY 1 - AUG 21

LOCATION	50°F	2012	NORM	48°F	40°F
Dubuque, IA	2047	2647	2230	2091	3284
Lone Rock	1987	2591	—	1999	3214
Beloit	2174	2733	2266	2150	3436
Madison	1989	2610	2159	2031	3208
Sullivan	1971	2587	2144	2017	3187
Juneau	1860	2504	—	1969	3053
Waukesha	1783	2380	—	1884	2962
Hartford	1746	2357	—	1849	2914
Racine	1773	2370	—	1890	2955
Milwaukee	1732	2324	2066	1846	2898
Appleton	1744	2339	2085	1827	2887
Green Bay	1662	2248	1938	1764	2799
Big Flats	1741	2342	—	1767	2874
Hancock	1759	2367	2094	1811	2896
Port Edwards	1698	2289	2054	1769	2808
La Crosse	1952	2564	2359	1952	3152
Eau Claire	1828	2367	2127	1900	2958
Cumberland	1625	2054	1993	1699	2684
Bayfield	1226	1735	—	1279	2162
Wausau	1562	2074	1951	1643	2613
Medford	1599	2062	1788	1694	2650
Crivitz	1546	2074	—	1623	2625
Crandon	1436	1838	1520	1483	2412

Method: ModifiedB50; Sine48; ModifiedB40 as of Jan 1, 2013.
NORMALS based on 30-year average daily temps, 1981-2010.

and Walworth counties still have very high counts of 3.0-8.0 per plant. District average counts are 0.6 in the south-west, south-central 0.7 per plant in the south-central, 0.8 per plant in the southeast, 0.2 per plant in the central and 0.4 in the west-central region. An average of 0.75 or more adult corn rootworms per plant (in continuous corn) indicates control in the form of crop rotation, using a Bt-rootworm hybrid or applying an at-planting soil insecticide should be considered to prevent root damage in 2014. Beetle populations exceeding this threshold have been noted in 28 of the 156 (18%) fields surveyed to date.

WESTERN BEAN CUTWORM: Moth counts have declined to fewer than two per trap at all monitoring locations. As of August 21, the state total is only 642 moths in 116 traps, an 80% decrease from the 3,290 moths collected last season. The highest individual count for the eleven-week monitoring period was 60 moths near Montello in Marquette County. Possible explanations for the unprecedented decline in moth numbers are that larval popula-

tions were reduced by last year's drought or that high mortality occurred during the 2012-13 winter months, although both theories are speculative.

CORN EARWORM: Locally heavy flights were registered in Dane and Fond du Lac counties for the third consecutive week. Larvae resulting from the August migration have been observed in silking corn fields as far north as Dunn County, and treatments are under way. Sweet corn producers should continue to check fields regularly for this pest as long as moths are appearing in pheromone traps and green silks are present. A count of 5-10 moths in three nights indicates the need for protective treatment of susceptible silking fields. Counts this week were: Byron 272, Chippewa Falls 15, Coon Valley 2, Cottage Grove N 2, Green Lake 78, Janesville 0, Marshfield 0, Manitowoc 0, McFarland 162, Ripon 51, Sun Prairie N 227, Sun Prairie W 10, Wausau 2, and Watertown 4.



Corn earworm larva

Krista Hamilton DATCP

SOYBEANS

SOYBEAN APHID: Densities have increased this month in most fields, with about 5% of surveyed sites containing economic counts of 250-587 per plant and 16% showing moderate averages in the range of 50-249 per plant. Only two fields, one each in Waushara and Waupaca counties, had economic populations when the same fields were sampled during the first half of the survey in July. Populations in 22% of fields decreased from July to August, suggesting these sites have been treated for control of this pest in the last few weeks. The preliminary state average aphid count is 49 per plant as of August 21, although the second half of the survey is incomplete.

All soybean acreage should be evaluated one last time in the next few days since control measures may be justified and foliar treatment is not economical for soybeans beyond the R5.5 growth stage.



Soybean aphids

Krista Hamilton DATCP

FRUITS

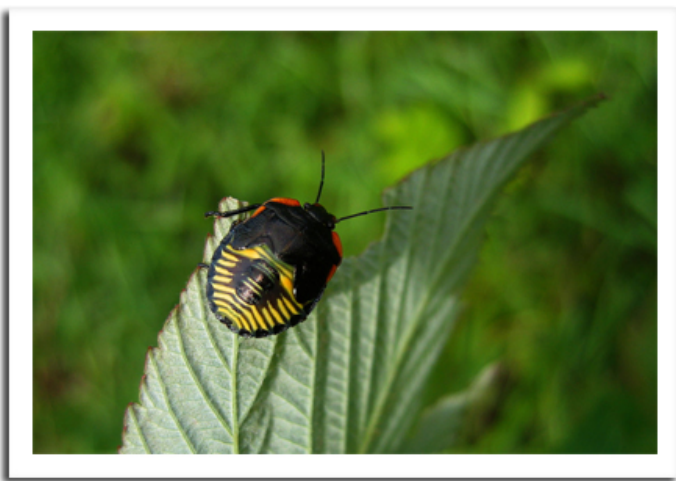
CODLING MOTH: Moths are still appearing in very high numbers in pheromone traps. The peak of the second flight has occurred at most locations, but additional treatments may be necessary this month if the moths remain numerous. The average count this week was 10 per trap, with a high count of 32 per trap near Spring Valley in Pierce County.

APPLE MAGGOT: Emergence continued for the eighth week, with most orchards registering fewer flies than in the previous week. The high count was again noted at Gays Mills in Crawford County where 16 flies were collected on a red sphere trap. According to reports from apple growers, the dry weather and timely insecticide applications have generally suppressed the flies and fruit damage this year.

SPOTTED TENTIFORM LEAFMINER: Moth counts as high as 993 per trap during the last reporting period indicate that the third flight has likely peaked in some southern orchards. Central and northern locations can expect the peak to occur in 1-2 weeks.

STINK BUG: Adults and nymphs have been observed on the undersides of leaves in southern Wisconsin apple orchards, signaling the potential for fruit injury prior to harvest. Growers are encouraged to monitor fruits for

evidence of feeding by these insects. A single adult or nymph can injure many apples and damage may not develop until after the fruits are in storage.



Green stink bug nymph

Larry552 flickr.com

JAPANESE BEETLE: Spot treatment of individual trees should be considered for those orchards that continue to experience high numbers of beetles. This pest remains very active and common as far north as Eau Claire and Chippewa counties.

VEGETABLES

CABBAGE LOOPER: The Chippewa Falls trapping location registered low numbers of moths for the second week in a row, suggesting that additional migrants are arriving in the state and weekly scouting should continue through mid-September or harvest. A 10% infestation threshold should be used from early heading until harvest to protect the market quality of cabbage. The same threshold applies to broccoli and cauliflower once flowers or curds begin to develop.

JAPANESE BEETLE: Reports from Eau Claire and Grant counties indicate continuing problems in home gardens. The beetles are defoliating snap beans, as well as the corn, eggplants and peppers. The simplest natural control is to remove them from plants and submerge them in a bucket of soapy water. Gardeners are also advised to cull and dispose of overripe and rotting produce, which can attract large numbers of beetles.

BLOSSOM END ROT: This physiological disorder of tomatoes, peppers, watermelons and squash is appearing in commercial and home gardens, according to

grower reports. The dark, water-soaked spot that starts at the blossom end of the fruit and enlarges around the fruit surface is caused by calcium deficiency or inconsistent soil moisture levels. Since this disease is physiological in nature, fungicides and insecticides are useless as control measures. Adjusting calcium levels in spring and maintaining even soil moisture levels throughout the season will usually limit its development.



Blossom end rot on tomato

Krista Hamilton DATCP

NURSERY & FOREST

EMERALD ASH BORER: This destructive ash pest was detected on August 13 in Superior in Douglas County, more than 200 miles north of any previous infestation. Superior is the northernmost location in Wisconsin to date and indicates the infestation is the result of human-assisted transport of larvae in infested ash firewood, logs, lumber or nursery stock. Emerald ash borer was also found in Winnebago County on August 6, Dodge County on August 1, Fond du Lac County on July 29, Sauk County on July 11, and now occurs in 20 Wisconsin counties. The list of EAB-infested counties is as follows: Brown, Crawford, Dodge, Douglas, Fond du Lac, Jefferson, Kenosha, La Crosse, Milwaukee, Ozaukee, Racine, Rock, Sauk, Sheboygan, Trempealeau, Vernon, Walworth, Washington, Waukesha and Winnebago.

OAK GALLS: Nursery inspections in the past week found an assortment of galls on oak, including gouty oak gall, oak cynipid galls, woolly leaf galls and vein pocket galls. Galls are abnormal outgrowths of plant tissue caused by insects, fungi, bacteria, nematodes or mites. These growths may develop on any plant part, but most commonly occur on the branches and leaves. Chemical

treatment should be timed to control the adult stage, if justified. Pruning and destroying infested plant parts are the preferred control methods.



Gouty oak gall on swamp white oak

Marcia Wensing DATCP

COMPACTED ROOTS: Many Fraser fir transplants on a Marathon County Christmas tree farm were exhibiting yellowed needles and wilted branches, symptoms attributed to compacted roots and poorly developed root systems. The owner of the farm contacted DATCP after noticing the firs he transplanted this spring had begun to wilt and die. Close examination of the affected plants revealed severely compacted roots and moisture stress exacerbated by dry conditions in the last two months. It is recommended that Christmas tree growers grade or assess newly purchased transplants according to root quality, and plant trees with sparse or tightly compacted roots in the edge rows of fields where development problems will be evident early on.



Compacted Fraser fir roots

Konnie Jerabek DATCP

TWO-MARKED TREEHOPPER: Adults and nymphs were noted on hoptree in Dodge County earlier this week. This distinctive insect with two yellow spots and a thorn-like dorsal projection injures trees by extracting sap from leaves and young shoots, while the female adults can damage twigs by depositing eggs into small slits made by their ovipositors. After the eggs hatch, the slits remain evident as scars for several years. Although these insects may be abundant in some years, their feeding habits usually do not cause serious damage.



Two-marked treehopper

Marcia Wensing DATCP

ASH PLANT BUG: The stippled leaves and premature leaf drop affecting ash trees in north-central Wisconsin last month was attributed to the ash plant bug, a very common pest of ash shade and nursery trees. Damage caused by this insect is an aesthetic problem and poses no threat to the health of ornamental ash trees.

APPLE INSECT & BLACK LIGHT TRAP COUNTS AUGUST 15 - 21

COUNTY	SITE	STLM ¹	RBLR ²	CM ³	OBLR ⁴	AM RED ⁵	YELLOW ⁶
Bayfield	Keystone	—	—	—	—	—	—
Bayfield	Orienta	274	19	0	3	0	0
Brown	Oneida	—	—	—	—	—	—
Columbia	Rio	—	—	—	—	—	—
Crawford	Gays Mills	185	2	18	9	*16	0
Dane	Deerfield	790	8	0	1	0	0
Dane	McFarland	—	—	—	—	—	—
Dane	Mt. Horeb	470	27	4	8	0	0
Dane	Stoughton	183	16	25	2	0	0
Dane	West Madison	190	34	26	5	0	0
Fond du Lac	Campbellsport	300	23	0	8	0	0
Fond du Lac	Malone	—	—	—	—	—	—
Fond du Lac	Rosendale	—	—	—	—	—	—
Grant	Sinsinawa	—	—	—	—	—	—
Green	Brodhead	—	—	—	—	—	—
Iowa	Mineral Point	810	61	24	32	**5	0
Jackson	Hixton	12	1	0	2	0	0
Kenosha	Burlington	—	—	—	—	—	—
Marathon	Edgar	86	16	3	0	2	1
Marinette	Niagara	212	0	2	1	7	0
Marquette	Montello	120	6	0	6	0	0
Ozaukee	Mequon	250	5	9	7	*2	0
Pierce	Beldenville	45	8	4	0	0	1
Pierce	Spring Valley	150	10	32	7	**4	0
Polk	Turtle Lake	282	3	25	0	*0	0
Racine	Raymond	993	6	7	21	0	0
Racine	Rochester	580	22	17	3	*1	0
Richland	Hillpoint	790	3	11	4	3	0
Sheboygan	Plymouth	—	—	—	—	—	—
Walworth	East Troy	31	1	0	2	0	0
Walworth	Elkhorn	62	3	0	1	0	0
Waukesha	New Berlin	531	3	20	9	0	0

¹Spotted tentiform leafminer; ²Redbanded leafroller; ³Codling moth; ⁴Obliquebanded leafroller; ⁵Apple maggot red ball;

*Unbaited AM trap; **Baited AM trap; ⁶Apple 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	21	0	10	0	0	0	2	12	0	0
Columbia	Arlington	—	—	—	—	—	—	—	—	—	—
Crawford	Prairie du Chien	3	0	0	0	24	1	0	0	13	0
Dane	Mazomanie	—	—	—	—	—	—	—	—	—	—
Fond du Lac	Ripon	6	0	0	0	0	3	0	0	2	0
Manitowoc	Manitowoc	0	0	0	0	76	0	0	0	14	0
Marathon	Wausau	4	0	0	1	51	2	0	3	26	0
Monroe	Sparta	—	—	—	—	—	—	—	—	—	—
Rock	Janesville	0	0	0	0	0	0	0	0	0	0
Walworth	East Troy	2	0	0	0	21	0	1	0	1	0
Wood	Marshfield	2	0	0	0	5	0	0	0	1	1

¹European corn borer; ²True armyworm; ³Black cutworm; ⁴Spotted cutworm; ⁵Dingy cutworm; ⁶Corn earworm; ⁷Celery looper;

⁸Western bean cutworm; ⁹Forage looper; ¹⁰Variegated cutworm.