

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

A cooling trend continued during the final week of July. Temperatures plunged late last week, resulting in two consecutive days of record-breaking low temperatures. According to the National Weather Service, new record low maximum temperatures (43-47°F) were observed on July 27 in Antigo, Appleton, Eau Claire, Green Bay, Marshfield, Oshkosh, Stevens Point, Wausau, Wisconsin Rapids and many other locations. Sunday, July 28 also saw new records in the form of daytime high temperatures. Rhinelander in Oneida County only warmed to 59°F, making that the lowest maximum daytime temperature in the city's history for that date. The previous record of 62°F was set in 1991. The unseasonably cool weather of the last reporting period slowed summer crop development, which is already highly variable across the state and within individual fields. Sufficient heat and additional moisture are needed this month for the state's extensive acreage of late-planted crops to properly mature.

LOOKING AHEAD

WESTERN BEAN CUTWORM: The annual flight appears to have peaked across southern Wisconsin. The DATCP network of 114 pheromone traps registered 195 moths from July 25-31, a minor increase from the 135 moths reported during the previous week. The state cumulative

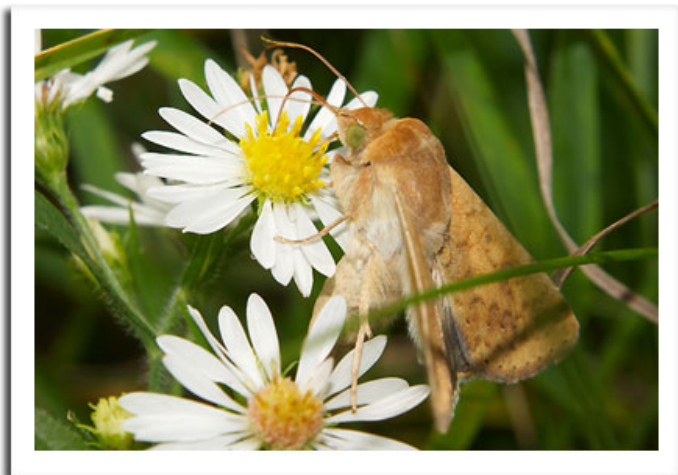
moth count thus far is only 364. Based on the latest activity, growers can anticipate small larvae appearing in fields for at least two more weeks. Moth flight is expected to subside by mid- to late August at most monitoring sites.

SOYBEAN APHID: Densities remain low for this time of year. Only two of 129 soybean fields sampled as part of the annual survey contained economic counts of 300 or more per plant, while the vast majority of sites (88%) had fewer than 25 per plant. Natural enemies are still very active and abundant in most fields and treatment may not be required for many fields this season. As a reminder, foliar treatment should not be considered until the established threshold of 250 aphids per plant on 80% of the plants has been exceeded.

EUROPEAN CORN BORER: The summer flight of moths continued for the second week. At current temperatures, the majority of moths should appear in traps across the southern half of the state from August 4-16, several days later than last predicted. The treatment window for second generation larvae has opened in advanced areas of the state with the accumulation of 1,550 degree days (base 50°F).

CORN EARWORM: Moderate flights of 21-50 moths were registered in Dane, Fond du Lac, Green Lake and Jefferson counties again this week. Counts at nine other

reporting locations were less than 17 per trap. Egg deposition on corn silks has intensified and is likely to continue throughout August; therefore, regular scouting and control measures are in order. Sweet corn is susceptible to infestation whenever green silks are present.



Corn earworm moth

Dale R. Niesen bugguide.net

SPOTTED WING DROSOPHILA: Flies have been collected in low numbers in Bayfield, Crawford, Dane, Door, Iowa, Trempealeau, Sauk and Vernon counties as of August 1, while larval infestations have been confirmed in Columbia, Rock and Vernon counties. The rapid appearance of SWD adults in the last two weeks suggests the flies originated from a local source and that growers of susceptible small fruits should prepare to implement controls as soon as the flies or larvae are detected.

FORAGES

POTATO LEAFHOPPER: This primary alfalfa pest generally has been less of a problem than anticipated in the second and third crops. Surveys this week found counts of less than two per sweep, with a range of 0.1-1.9 per sweep. Continued sampling throughout August is recommended since counts are just below the two per sweep threshold (for 12-inch or taller alfalfa) in some fields.

PLANT BUG: Representative counts range from 0.1-2.3 per sweep. The average is low at 0.9 per sweep. Nymphs of various maturities are common but not abundant in most alfalfa plantings. Plant bug populations have been comparatively low all season long, according to our surveys.

DEGREE DAYS JANUARY 1 - JULY 31

LOCATION	50°F	2012	NORM	48°F	40°F
Dubuque, IA	1664	2269	1797	1678	2691
Lone Rock	1615	2226	—	1609	2631
Beloit	1767	2337	1822	1724	2817
Madison	1611	2232	1738	1635	2619
Sullivan	1606	2216	1719	1633	2612
Juneau	1508	2144	—	1589	2493
Waukesha	1445	2025	—	1516	2415
Hartford	1409	2005	—	1482	2368
Racine	1416	1991	—	1502	2387
Milwaukee	1384	1954	1618	1468	2340
Appleton	1410	1976	1659	1475	2345
Green Bay	1328	1886	1541	1402	2258
Big Flats	1417	2006	—	1433	2352
Hancock	1428	2017	1685	1467	2363
Port Edwards	1380	1952	1652	1437	2287
La Crosse	1581	2207	1902	1563	2570
Eau Claire	1475	2026	1709	1529	2395
Cumberland	1313	1751	1591	1367	2173
Bayfield	943	1448	—	964	1681
Wausau	1275	1765	1557	1338	2133
Medford	1311	1761	1423	1379	2171
Crivitz	1235	1743	—	1288	2112
Crandon	1171	1564	1215	1212	1972

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

PEA APHID: Populations are somewhat higher than last week at 1-7 per sweep, with a few individual fields showing high counts of 10-26 per sweep. The abnormally cool, dry weather of late July has been favorable for proliferation of these aphids.

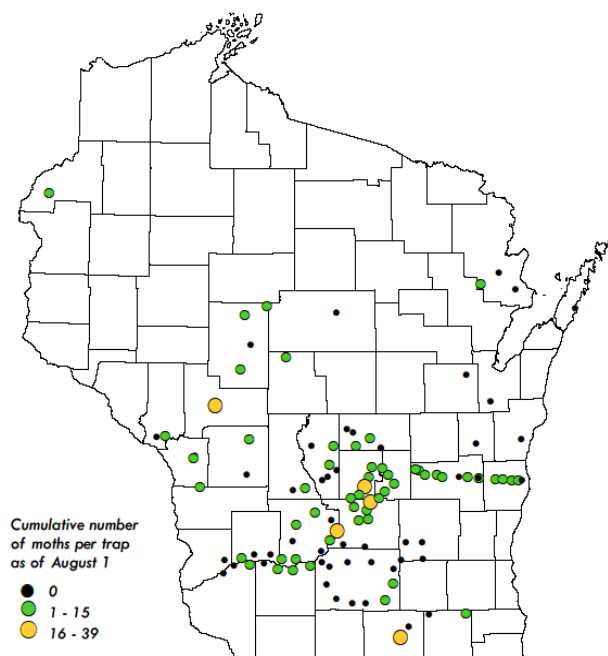
CORN

CORN ROOTWORM: Numbers have been gradually increasing since emergence began last month. Surveys in the south-central and southwest areas found counts of 0.1-3.4 beetles per plant, with economic counts of one or more beetles per plant observed in a few cornfields in Green, Lafayette and Rock counties. Peak beetle emergence remains approximately 1-2 weeks away.

WESTERN BEAN CUTWORM: Moth activity has peaked or is expected to peak soon in most areas of the state. As of August 1, the Wisconsin network of 114 pheromone traps has reported a cumulative total of only 364 moths,

the lowest preliminary state moth count since trapping surveys for this pest began in 2005. High counts in the past week were 33 moths in the black light trap near Sparta and 18 moths in the Merrimac pheromone trap. The map below summarizes the cumulative moth counts to date.

2013 Western Bean Cutworm Trap Counts



Wisconsin Department of Agriculture, Trade and Consumer Protection



EUROPEAN CORN BORER: Surveys of corn in Dane, Green, Jefferson, Lafayette and Rock counties found no significant infestations. Development of this insect has slowed in response to the cool weather of the past two weeks and the second flight could be prolonged if chilly nightly conditions continue. The treatment window for the second generation has opened in all areas where 1,550 degree days (base 50°F) have accumulated and will remain open until 2,100 degree days are surpassed.

SOYBEANS

SOYBEAN APHID: Densities are still generally low for late July. The average count in 39 fields surveyed from July 25-31 was only 12 aphids per plant. The highest count documented was 180 aphids per plant in the Appleton area of Outagamie County. Foliar insecticides directed against this pest have been justified for only two soybean fields sampled by DATCP so far this season.

JAPANESE BEETLE: This pest continues to cause light to moderate (5-15%) defoliation of soybeans, particularly along field margins. Infestations were noted in Brown, Columbia, Dodge, Sauk, Trempealeau and Winnebago counties this week. The economic threshold for Japanese beetle and other leaf feeding soybean pests is 20% defoliation between bloom and pod fill. Spot treatment is an acceptable form of control for fields with the heaviest injury occurring in the peripheral areas.



Japanese beetles feeding on soybean leaf

Krista Hamilton DATCP

GREEN CLOVERWORM: Larvae are widely distributed throughout the state, but populations are low (less than six per 100 sweeps) and leaf injury has been minor in surveyed fields. Defoliation has not exceeded the 20% treatment threshold thus far.

FRUITS

APPLE MAGGOT: Emergence and oviposition continued for the fifth week. Counts have been low since the first flies appeared in early July and ranged from 0-7 per trap this week, with the high count registered near Hillpoint in Richland County. Based on the apple maggot degree day model, peak emergence of the fly population should occur in the next two weeks in the southern half of the state.

CEDAR-HAWTHORN RUST: This rust disease is reportedly affecting about 25% of the fruits on ornamental hawthorn in the DeForest area of Dane County. Cedar-hawthorn rust, as its name implies, requires both a rosaceous host such as hawthorn and a juniper host to complete its life cycle. Selecting resistant hawthorn cultivars and thorough sanitation (removing as much of

the infected twigs, fruit and leaves as possible) are the recommended controls. Fungicide treatments applied as new growth appears and flower buds start to open may be justified for severe cases.

SPOTTED TENTIFORM LEAFMINER: The second flight has peaked in southern and central apple orchards where 1,479-1,523 degree days (base 50°F) were surpassed as of August 1. The economic threshold for the third and final generation increases to five mines per leaf.

FIRE BLIGHT: An apple grower in Chippewa County reports that fire blight has been severe this season and some orchards in the area have removed infected trees.

VEGETABLES

SQUASH VINE BORER: Moths are still active in Dane County and in other locations. Growers of pumpkins, zucchini and squash should continue checking susceptible plants for flat, brown eggs deposited at the base of stems as long as the moths are present.



Squash vine borer egg

bonnieplants.com

COLORADO POTATO BEETLE: Second generation larvae are appearing in potatoes in the southern and central areas. Late-season control of this pest may be warranted if defoliation exceeds 30% during tuber formation. Treatments should be applied when most of the population reaches the intermediate third instar stage, presuming this does not conflict with label recommendations or resistance management. Proper timing permits most eggs to hatch, but kills the larvae before they reach the destructive fourth instar. Potato producers are reminded to avoid the consecutive use of the same insecticide

product or use of different products with similar modes of action.



Colorado potato beetle larvae

[Krista Hamilton DATCP](http://kristahamilton.com)

LATE BLIGHT: Potato fields infected with late blight have been confirmed in Adams, Dunn, Juneau and Portage counties as of August 1. One case of the disease on tomato in Sauk County was also verified early last month. Potato growers should maintain a 5- to 7-day fungicide program, while home gardeners are advised to inspect tomato and potato plants daily for leaf lesions and fruit spots. If late blight is suspected and symptoms are widespread, plants should be destroyed and properly disposed of to prevent further disease spread.

NURSERY & FOREST

VERTICILLIUM WILT: Catalpa trees at a nursery in Washington County were diagnosed with this fatal vascular disease, frequently misdiagnosed as decline caused by environmental factors. Symptoms are highly variable and may be acute or chronic. Acute symptoms include premature fall coloration, wilting, defoliation, branch dieback and death, whereas chronic symptoms typically reflect damage from earlier infections and may include slow growth, sparse foliage, stunted leaves and twigs, leaf scorch and abnormally heavy seed crops. Trees showing severe, widespread wilt and dieback cannot be saved, although regular watering during dry periods may reduce symptom severity. Verticillium-infected plants should be replaced with a resistant variety such as aspen, beech, sycamore, poplar, willow or any conifer.

LINDEN BORER: Larvae and sawdust-like frass were observed on 'Redmond' and 'Little-leaf' linden trees in St.

Croix County. This destructive wood-boring beetle attacks both vigorous and stressed nursery trees, causing structural weakening that often results in broken trunks or limbs, rapid decline and death. Early symptoms can be easily overlooked and include thinning of the canopy and bark cracks or bulges where feeding has taken place. Larger trees may not show symptoms for 2-5 years, while smaller trees may exhibit symptoms the year they are infested. Dead or dying trees may harbor large numbers of borers and should be cut down and burned or chipped before adults emerge in summer.



Linden borer

Konnie Jerabek DATCP

JAPANESE BEETLE: Nursery inspectors found minor feeding damage to aronia, daylily, linden and river birch in Dane, Jackson, Jefferson, Kenosha, Racine, Walworth and Washington counties. Adults of this species skeletonize foliage, leaving only the network of veins, while the subterranean grubs feed on roots of grasses and frequently damage turf in lawns, parks and golf courses. Of the range of control measures that may be directed against the adult or larval stages (i.e. trapping, insecticides, milky spore disease, insect parasitic nematodes, etc.), none is as effective as physically removing the adults from plants in the early morning or late evening hours, when they are less active. The beetles may be killed using a bucket of soapy water or by placing them in a plastic bag and freezing the contents for 72 hours. Since peak emergence has not yet occurred, repeated spot treatment of individual trees or plants may be required this month for nurseries that experience high numbers of beetles.

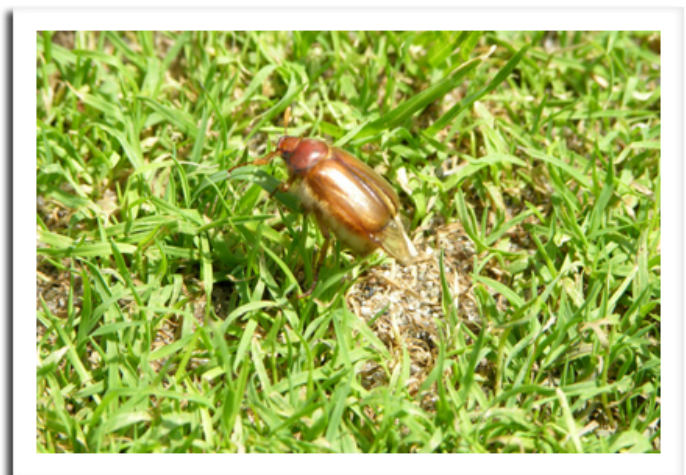
GUIGNARDIA LEAF BLOTCH: Inspectors report light symptoms of this common fungal disease on horse-chestnut and buckeye trees in southeastern Wisconsin.

Diagnostic characteristics are the irregular shaped, reddish-brown leaf blotches with yellow margins that twist and wrinkle affected leaves as they increase in size and number. Fungicide treatments usually are unnecessary because the impact of this leaf blotch on tree health is minimal. Fallen leaves should be collected and disposed of to reduce available inoculum that may cause new infections next spring.

NEW STATE RECORD: The “June beetles” devouring maple foliage in Door County last month were identified by UW Entomologist Phil Pellitteri as the European chafer, *Rhizotrogus majalis*, a very destructive grub pest of turf. This is the first confirmed report of the European chafer in the Wisconsin and a new state record.

A native of western and central Europe, the European chafer was first detected in the U.S. in 1940 near Rochester, New York. Other states with confirmed populations include Connecticut, Delaware, Massachusetts, Michigan, New Jersey, New York, Ohio, Pennsylvania, Rhode Island and southern Ontario.

This species is considered a more serious pest of home lawns and low-maintenance turf than Japanese beetle in areas where is established. It feeds later into fall and earlier in spring, and may even feed during warm periods in winter.



European chafer beetle

onturf.wordpress.com

APPLE INSECT & BLACK LIGHT TRAP COUNTS JULY 25 - 31

COUNTY	SITE	STLM ¹	RBLR ²	CM ³	OBLR ⁴	AM RED ⁵	YELLOW ⁶
Bayfield	Keystone	14	7	0	20	2	4
Bayfield	Oriente	—	—	—	—	—	—
Brown	Oneida	500	9	0	0	0	0
Chippewa	Chippewa Falls	0	15	1	5	0	0
Columbia	Rio	—	—	—	—	—	—
Crawford	Gays Mills	90	4	5	0	*5	0
Dane	Deerfield	—	—	—	—	—	—
Dane	McFarland	0	0	3	0	7	0
Dane	Mt. Horeb	158	0	0	2	0	0
Dane	Stoughton	53	14	2	0	0	1
Dane	West Madison	—	—	—	—	—	—
Fond du Lac	Campbellsport	30	41	0	1	0	0
Fond du Lac	Malone	26	22	1	0	*1	0
Fond du Lac	Rosendale	—	—	—	—	—	—
Green	Brodhead	—	—	—	—	—	—
Iowa	Mineral Point	415	0	25	3	0	0
Jackson	Hixton	—	—	—	—	—	—
Kenosha	Burlington	284	5	1	3	0	0
Marathon	Edgar	—	—	—	—	—	—
Marinette	Niagara	221	10	0	7	1	0
Marquette	Montello	—	—	—	—	—	—
Ozaukee	Mequon	250	15	2	0	0	0
Pierce	Beldenville	176	80	6	4	0	1
Pierce	Spring Valley	138	31	1	0	0	0
Polk	Turtle Lake	175	65	4	0	*0	0
Racine	Raymond	103	3	1	0	0	0
ORacine	Rochester	116	9	5	1	*2	0
Richland	Hillpoint	80	3	4	3	6	1
Sheboygan	Plymouth	101	23	7	3	**4	0
Walworth	East Troy	—	—	—	—	—	—
Walworth	Elkhorn	—	—	—	—	—	—
Waukesha	New Berlin	67	3	0	0	0	0

¹Spotted tentiform leafminer; ²Redbanded leafroller; ³Codling moth; ⁴Obliquebanded leafroller; ⁵Apple maggot red ball; 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	9	0	2	0	0	0	1	2	0	0
Columbia	Arlington	—	—	—	—	—	—	—	—	—	—
Crawford	Prairie du Chien	0	0	0	0	1	0	0	0	0	0
Dane	Mazomanie	4	1	0	0	1	0	1	0	0	0
Fond du Lac	Ripon	0	0	0	0	0	0	2	8	0	0
Manitowoc	Manitowoc	0	7	1	2	0	0	0	1	17	14
Marathon	Wausau	3	2	1	2	11	3	0	0	36	0
Monroe	Sparta	0	0	0	0	1	0	0	33	0	0
Portage	Plover	—	—	—	—	—	—	—	—	—	—
Rock	Janesville	0	2	1	0	0	1	6	0	6	0
Walworth	East Troy	0	1	0	0	2	0	1	3	0	0
Wood	Marshfield	1	1	1	0	0	0	3	2	3	0

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