

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

Lingering humidity early in the week contrasted with cooler, drier weather as high pressure settled over Wisconsin during the last days of August. Daytime temperatures in the 80s were replaced by comfortable highs in the 70s, while nighttime lows cooled to the 40s and 50s. Rain showers continued to slow alfalfa and oat harvesting, though mild conditions promoted corn and soybean maturation. Following this summer's pattern of unseasonable warmth and plentiful precipitation, crop development remains one to two weeks ahead of last year and the long-term average. Crop condition ratings are still exceptionally favorable, despite increasing fungal disease problems intensified by high humidity and frequent rain, with 86-90% of the state's alfalfa, corn, potato and soybean acreage reported in good to excellent condition. The early-September forecast calls for a return to above-normal temperatures, which should expedite the corn silage harvest and accelerate crops toward maturity.

LOOKING AHEAD

FALL PESTS: Nuisance insects including the boxelder bug, brown marmorated stink bug, multicolored Asian lady beetle, and western conifer seedbug will begin aggregating on warm southern and western exposures of buildings later this month in advance of their indoor invasion. Exterior insecticide treatments may temporarily deter

insects from entering homes, but exclusion measures such as sealing cracks around windows, doors, siding and other openings are preferred. Insecticides should be applied by a licensed pest control technician and considered only for severe infestations. Fall nuisance insects do not reproduce inside the home or cause structural damage.

CORN EARWORM: Migrants arrived in substantial numbers for the third consecutive week. Another 2,865 moths were captured in pheromone traps during the period of August 25-31, for a cumulative total of 6,372 moths in 17 traps since the primary migration began earlier this month. The weekly high count of 1,961 moths was registered near Ripon in Fond du Lac County. Sweet corn growers are advised to maintain CEW scouting and management programs as long as moth activity persists and green silks are available for oviposition.

BROWN MARMORATED STINK BUG: This new invasive pest has been trapped in Dane and Rock counties this summer and is now established in south-central Wisconsin. Similar to the multicolored Asian lady beetle and boxelder bug, BMSB clusters on the exteriors of buildings in autumn in search of protected overwintering sites. Reports from Mid-Atlantic States where BMSB is a severe pest of fruit, field and vegetable crops indicate that BMSB usually develops from a household nuisance into a significant agricultural pest over a

period of 5-10 years. To date, there has been no official confirmation of fruit or agronomic crop injury in Wisconsin. Any swarms of stink bugs noticed this fall should be reported to the DATCP Pest Survey Program at 1-866-440-7523.

NEW STATE RECORD: The UW-Madison Insect Diagnostic Lab and DATCP have confirmed the first detection in Wisconsin of the two-banded Japanese weevil (*Pseudocneorhinus bifasciatus*), a destructive insect pest of over 100 landscape plants. Several specimens were collected from ornamental plants at a Dane County residence on August 5.

This weevil was first reported in the U.S. near Philadelphia in 1914 and is thought to have been introduced with infested nursery stock from Japan. Although *P. bifasciatus* has invaded much of the eastern U.S. in the last 100 years, it has not been previously reported from Wisconsin. The weevils in Dane County were observed on columbine, coral bells, Japanese anemone, ligularia, pulmonaria, Siberian bugloss, snow-on-the-mountain, spirea, rock iris and various weeds.



Two-banded Japanese weevil Yurika Alexander buggide.net

FORAGES & GRAINS

POTATO LEAFHOPPER: Surveys during the last week of August found very little change in leafhopper populations. Counts were below 1.5 per sweep in all fields sampled in the central and southwestern counties. Levels of this insect have been non-economic all summer long, despite a timely spring arrival and favorable temperatures. Significant population increases are unlikely to occur during the remainder of the growing season.

DEGREE DAYS JAN 1 - AUGUST 31

LOCATION	50°F	2015	NORM	48°F	40°F
Dubuque, IA	2564	2399	2421	2695	3664
Lone Rock	2510	2318	—	2644	3597
Beloit	2640	2420	2463	2852	3820
Sullivan	2278	1978	2333	2489	3354
Madison	2501	2290	2345	2718	3624
Juneau	2227	2113	—	2462	3328
Racine	2449	1936	—	2670	3546
Waukesha	2186	1978	—	2308	3174
Milwaukee	2478	1937	2267	2691	3553
Hartford	2190	1978	—	2314	3180
Appleton	2180	2040	—	2416	3260
Green Bay	2152	1931	2110	2380	3211
Big Flats	2344	2164	—	2540	3392
Hancock	2344	2164	2274	2540	3392
Port Edwards	2320	2084	2229	2517	3384
La Crosse	2708	2409	2562	2943	3893
Eau Claire	2384	2175	2311	2604	3513
Cumberland	1956	1936	2167	2064	2915
Bayfield	1776	1628	—	1977	2701
Wausau	2130	1861	2121	2341	3160
Medford	1888	1780	1945	1949	2767
Crivitz	2027	1820	—	2067	2864
Crandon	1891	1671	1646	2078	2841

Method: ModifiedB50: Sine48; ModifiedB40 as of Jan 1, 2016.
 NORMALS based on 30-year average daily temps, 1981-2010.

PEA APHID: Representative counts range from 0.3-4.0 per sweep. One alfalfa field surveyed in Richland County contained seven per sweep, the highest population documented in several weeks, but this site was an exception. Pea aphids have been of minor importance since mid-June.

CORN

CORN ROOTWORM: Review of annual beetle survey data shows that populations decreased from 2015 levels across southern, central and east-central Wisconsin, while beetle counts in the west-central and northern counties were markedly higher. Averages declined in five of the nine crop districts and increased in four. The largest decreases were found in the south-central and southeast districts where averages fell sharply from 0.8 to 0.4 beetles per plant and from 0.7 to 0.2 beetles per plant, respectively. Beetle counts were also lower in the southwest, central and east-central areas. By contrast, the

survey found significantly higher averages in west-central and northern Wisconsin, particularly in the northeast where the district count more than tripled from 0.2 to 0.7 beetles per plant. The 2016 state average of 0.5 beetles per plant compares to 0.6 per plant in 2015.

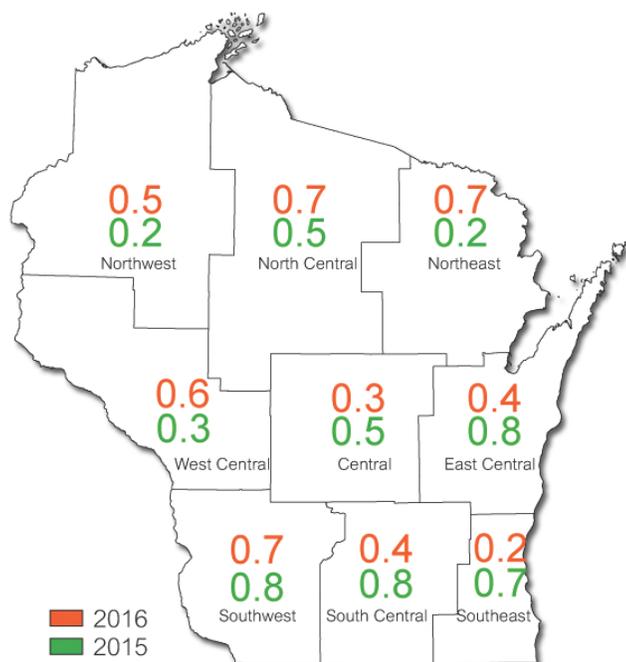


Western corn rootworm beetles

Krista Hamilton DATCP

Results of the survey suggest a greater threat of larval rootworm damage to non-Bt continuous corn in the northern and west-central counties next season, while beetle pressure may be lower across the southern, central and east-central areas.

Average Number of Corn Rootworm Beetles per Plant



2016
2015

WESTERN BEAN CUTWORM: Larval populations returned to moderate levels in 2016 after a three-year low. Surveys in August found larvae in about 15% of the 229 cornfields sampled, with moderate to heavy infestations in Chippewa, Dunn, Eau Claire, Green Lake, Juneau and Marquette counties. Larvae are in the late instars and should enter the pre-pupal overwintering stage by early September.

EUROPEAN CORN BORER: The 75th annual fall corn borer survey is now underway. Second-generation larvae have been detected at low levels in 15 of the 73 fields (21%) examined as of August 31. Counts in the infested fields were low overall, although two sites in the Holmen and Centerville areas of La Crosse and Trempealeau counties had exceptionally high averages of 1.8-1.9 larvae per plant and 2-3 borers per ear. The increase in conventional corn acreage due to lower commodity prices could provide more ECB habitat and favor larval populations this fall. Evaluating non-traited and traited corn for ECB larvae and damage is recommended before harvest.



European corn borer larva

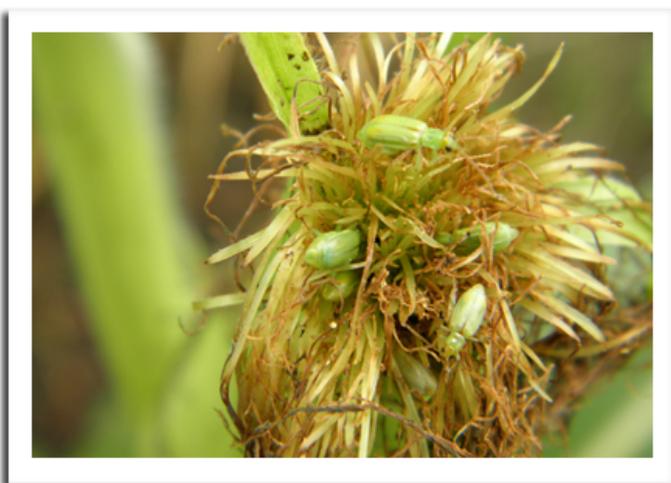
Krista Hamilton DATCP

SOYBEANS

SOYBEAN APHID: The annual survey conducted in late July and August found a statewide aphid average count of eight per plant. This average compares to 35 aphids per plant last year and is only marginally higher than the record-low count of seven aphids per plant documented in 2012. One hundred and seventy soybean fields in the R2-R5 growth stages were sampled during a three-week period from July 25-August 15. Aphid densities were below 151 per plant in all fields, and the majority of sites had counts of less than 25 aphids per plant. Results of

the survey confirm that aphid populations remained low or moderate in most fields this season and widespread treatment for aphid control was not required.

NORTHERN CORN ROOTWORM: This rootworm species was abundant in Richland County soybean fields surveyed earlier this week, where 10-40% of plants showed minor defoliation. NCRW beetles occasionally appear in large numbers on soybeans at this time of year to feed on the leaves, and their presence does not mean that egg deposition is occurring. An Iowa State study from 2005-2007 confirmed that the NCRW is capable of laying very low numbers of eggs in soybeans, but the behavior is probably rare and does not pose a threat to rotated corn. Insecticide use is not recommended.



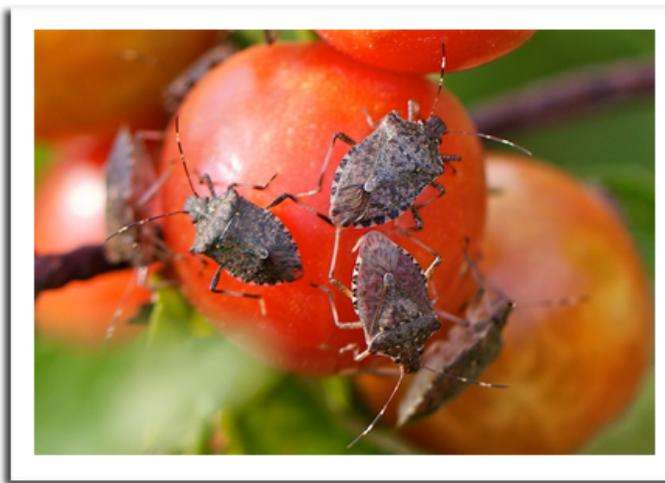
Northern corn rootworm beetles feeding on corn silks Krista Hamilton DATCP

WHITE MOLD: Environmental conditions have been conducive for development of this disease this season, especially in central and northern Wisconsin. Management of white mold requires basic cultural controls such as harvesting infected fields last, and thoroughly cleaning harvesting equipment. Rotations of 2-3 years between soybean crops with corn or small grains can also reduce levels of the fungal pathogen in the soil.

FRUITS

BROWN MARMORATED STINK BUG: Nymphs and adults are expected to remain active through October. Fruit growers and homeowners are advised to watch for this pest as the bugs swarm during warm fall days in search of overwintering sites. The brown marmorated stink bug is established in Dane County and likely in Rock County, where three adults and one nymph were caught in a

pheromone trap near Janesville on August 29 and 30. As previously requested, any swarms of stink bugs noticed this fall should be reported to DATCP at 1-866-440-7523.



Brown marmorated stink bugs

macgardens.org

YELLOWJACKETS: Significant numbers of these late-season fruit pests are damaging grapes in many of the state's vineyards. Grape clusters should be promptly harvested as they ripen to discourage yellowjacket feeding. Basic sanitation practices such as removing overripe or damaged fruit are also useful. Commercially available traps deployed earlier in the season can help to reduce numbers and the population buildup that often occurs by late August. Insecticides are not effective in managing yellowjackets in vineyards.



Yellowjacket on damaged grape

Eric Burkness UMN

SPOTTED TENTIFORM LEAFMINER: The third and last flight of the season has declined to low levels in most orchards. Counts ranged from 0-187 moths per trap from

August 25-31, except near Edgar in Marathon County where 815 moths were captured. Moth flights should subside by mid-September.

WISCONSIN FRUIT NEWS: UW-Madison researchers recently published its 10th issue of **Wisconsin Fruit News**, a new report highlighting current research on the state's fruit crops. Issued every other week since mid-April, WFN has included scouting reports, plant development updates, pest and disease management research summaries, and many other topics of importance to Wisconsin fruit producers. All growers of berries, cranberries, grapes, and tree fruits are encouraged to subscribe at <http://fruit.wisc.edu>.

VEGETABLES

CORN EARWORM: Locally heavy flights were reported from monitoring locations in Columbia, Dane and Fond du Lac counties this week. The primary late-season migration first accelerated from August 11-17 with the capture of 994 moths, 2,387 moths were trapped last week, and another 2,865 migrants arrived from August 25-31. The cumulative monthly count is 6,372 moths in 17 traps.



Corn earworm larva

Krista Hamilton DATCP

Moth counts for the week ending August 31 were: Arlington 305, Beaver Dam 15, Cottage Grove 86, Hancock 2, Janesville 39, Madison airport 75, Marshfield 1, Mayville 85, Pardeeville 80, Prairie du Chien 0, Ripon 1,961, Sun Prairie 46, Sun Prairie north 123, Watertown 35 and Wausau 12.

LATE BLIGHT: Fresh market tomato producers and home gardeners are advised to continue monitoring plants for signs of infection. Development of this disease has been

confirmed by the UW on tomato in Dane County and on potato and tomato in Polk County. Plants showing symptoms of late blight cannot be saved and should be disposed of in plastic bags to limit spread to other plants. Symptomatic plants may be submitted for free testing to the UW Plant Disease Diagnostic Clinic.

NURSERY & FOREST

EUONYMUS SCALE: Nursery inspectors noted a heavy scale infestation on 'Wintercreeper' euonymus in Kenosha County. This armored scale insect inhibits photosynthesis, reduces plant vigor and may kill entire plants. Severe problems are more likely to occur where plants are crowded or close to building foundations. Control measures include pruning out and destroying infested branches before the mobile crawlers emerge in early summer, or applying insecticidal soaps or oils to newly hatched crawlers, with four applications 10-12 days apart. Nursery growers and retailers are advised to carefully examine euonymus stock for this pest and reject or cull any infested plants.



Euonymus scale

Carol Beatty

REDHEADED FLEA BEETLE: These shiny black beetles with prominent reddish heads were abundant on the leaves and shoot tips of ornamental shrubs and perennials at a nursery in Jackson County. According to the inspector's report, several alpine currant, hydrangea, ninebark and weigela plants were moderately damaged. Defoliation caused by flea beetle feeding varies by leaf type, appearing as skeletonizing or shredding on thinner leaves and a linear, leafminer-like pattern on the thicker, fleshy leaves of sedum and similar plants. Insecticides directed against the adults are the most effective control, but repeat applications are often required.

PESTALOTIOPSIS BLIGHT: This fungal blight was diagnosed on western red cedar from a Dodge County nursery field. Pestalotiopsis is a stress-related problem triggered by unfavorable environmental conditions that eventually causes evergreen needles to turn black. Dead foliage should be pruned out to limit its spread.



Pestalotiopsis blight on western red cedar

Konnie Jerabek DATCP

ASPEN BLOTCH MINER: Damage to aspens is appearing across northeastern Wisconsin, in portions of Florence, Forest, Marinette, Oconto, Oneida and Vilas counties. Larvae of this insect feed between the leaf surfaces, forming stippled blotches on the upper leaf surface and large, blister-like circular lesions on the leaf underside. Severely infested trees appear green in the upper crown and brown below. Significant, long-term damage is not expected.



Aspen blotch miner

Timothy Allen DATCP

FUSARIUM: This soilborne fungal pathogen, which can survive for years in soil and plant debris, was found on

gladiolus plants in Sawyer County last month. Fusarium reduces plant growth and causes leaf yellowing that progressively worsens until the plant dies. Dead roots infected with fusarium appear dark, while infected corms may show varying degrees of discoloration and circular rotted areas. Cultural practices that minimize infection include planting in clean soil, using a four-year rotation, maintaining a slightly acidic soil pH, and promptly discarding diseased corms. Fungicide treatment can also reduce the incidence of Fusarium.

NORTHERN PITCH TWIG MOTH: Minor damage caused by the northern pitch twig moth was observed in Oneida County on Mugo pine. The larva of this species begins feeding near the tip of new shoots in early summer, creating a small round-feeding cavity covered by a protective resinous blister. The following spring it emerges and migrates to a lower feeding site on the same branch where it forms a new blister. Although first-year pitch twig moth feeding is usually inconsequential, second-year feeding is more destructive and can weaken or kill terminal leaders.



Northern pitch twig moth injury

Timothy Allen DATCP

DOWNY MILDEW: This common fungal disease was noted on the foliage of several varieties of grapes during recent nursery inspections in Jackson County. Downy mildew is characterized by the growth of whitish-gray mold on the lower leaf surface and corresponding yellowish-green or tan areas on the upper leaf surface. Its occurrence may be reduced by controlling humidity levels and by spacing plants to increase air circulation. The fungus overwinters as spores on old leaves or as mycelium in bud tissue.

APPLE INSECT & BLACK LIGHT TRAP COUNTS AUGUST 25-30

COUNTY	SITE	STLM ¹	RBLR ²	CM ³	OBLR ⁴	APB ⁵	LPTB ⁶	DWB ⁷	AM RED ⁸	YELLOW ⁹
Bayfield	Keystone	40	3	0	15	0	0	0	5	7
Bayfield	Orienta	157	0	0	0	—	0	5	0	**0
Brown	Oneida	—	—	—	—	—	—	—	—	—
Columbia	Rio	—	—	—	—	—	—	—	—	—
Crawford	Gays Mills	28	0	0	0	0	0	0	*4	—
Dane	DeForest	—	—	—	—	—	—	—	—	—
Dane	Edgerton	—	—	—	—	—	—	—	—	—
Dane	McFarland	4	0	0	—	—	—	—	1	*0
Dane	Mt. Horeb	0	18	0	6	3	0	0	3	—
Dane	Stoughton	37	134	5	0	4	0	0	0	0
Fond du Lac	Campbellsport	—	—	—	—	—	—	—	—	—
Fond du Lac	Malone	—	—	—	—	—	—	—	—	—
Fond du Lac	Rosendale	31	26	3	1	0	0	3	2	0
Grant	Sinsinawa	56	79	12	—	—	—	—	—	—
Green	Brodhead	17	139	0	3	0	0	46	0	0
Iowa	Mineral Point	—	—	—	—	—	—	—	—	—
Jackson	Hixton	14	21	0	0	0	0	4	0	0
Kenosha	Burlington	—	—	—	—	—	—	—	—	—
Marathon	Edgar	815	4	1	27	0	0	2	0	1
Marinette	Niagara	184	0	0	7	0	0	0	1	0
Marquette	Montello	167	84	0	1	—	—	—	*0	0
Ozaukee	Mequon	40	13	2	1	—	—	—	*2	—
Pierce	Beldenville	—	—	—	—	—	—	—	—	—
Pierce	Spring Valley	—	—	—	—	—	—	—	—	—
Racine	Raymond	131	70	0	1	2	0	15	0	0
Racine	Rochester	20	29	2	7	0	0	12	*2	0
Richland	Hill Point	7	130	1	1	0	0	0	**2	0
Sheboygan	Plymouth	—	—	—	—	—	—	—	—	—
Walworth	East Troy	—	—	—	—	—	—	—	—	—
Walworth	Elkhorn	—	—	—	—	—	—	—	—	—
Waukesha	New Berlin	0	36	0	0	4	19	0	0	0

¹Spotted tentiform leafminer; ²Redbanded leafroller; ³Codling moth; ⁴Obliquebanded leafroller; ⁵American plum borer; ⁶Lesser peachtree borer; ⁷Dogwood borer; ⁸Apple maggot red ball; *Unbaited; **Baited; ⁹Apple maggot yellow board.

COUNTY	SITE	BCW ¹	CEL ²	CE ³	DCW ⁴	ECB ⁵	FORL ⁶	SCW ⁷	TA ⁸	VCW ⁹	WBC ¹⁰
Columbia	Arlington	—	—	—	—	—	—	—	—	—	—
Columbia	Pardeeville	0	0	7	278	3	1	1	3	1	0
Dodge	Beaver Dam	0	1	9	39	21	2	3	2	0	0
Fond du Lac	Ripon	0	3	4	21	39	1	0	0	0	0
Grant	Prairie du Chien	0	0	0	0	0	1	3	0	0	0
Manitowoc	Manitowoc	—	—	—	—	—	—	—	—	—	—
Marathon	Wausau	0	1	3	25	0	3	54	0	0	0
Monroe	Sparta	—	—	—	—	—	—	—	—	—	—
Rock	Janesville	1	4	63	17	1	14	10	20	0	0
Walworth	East Troy	0	0	0	60	0	50	0	1	0	0
Wood	Marshfield	1	2	1	3	0	3	13	0	0	0

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