

# 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

Dry, increasingly hot weather continued across the state. Near-record heat prevailed at the start of the week as daytime temperatures soared into the mid-80s and lower 90s. Green Bay recorded a high of 92°F on June 10, which is 18 degrees above normal for this time of year. A cold front brought cooler and more comfortable conditions on Tuesday and Wednesday before very warm temperatures returned toward the end of the week. The warmer-than-normal weather, coupled with persistently dry conditions, continued to negatively impact a variety of crops. Corn in particular is showing signs of moisture stress. Seventy-one percent of the crop was reported in good to excellent condition as of June 11, down 7 percentage points from last week and 9 points lower than the same time last year. Soil moisture supplies have also continued to decline and are now rated as 56% short to very short statewide. More widespread rain is urgently needed to support normal growth of summer crops.

## LOOKING AHEAD

**VARIEGATED CUTWORM:** Damage from this sporadic pest continues to be reported in many areas of the state. Larvae were found at the rate of 2-5 per 100 plants in two Marquette County corn fields and caterpillars have also been detected in alfalfa, potatoes and soybeans in

Adams, Dane, Fond du Lac, Grant, Manitowoc, Rusk and Waupaca counties. Economic thresholds are 2 larvae per square foot for alfalfa when regrowth is being impaired and 40% defoliation for soybeans. The larvae noted in Marquette County were 1½ inches long on June 11.

**WESTERN BEAN CUTWORM:** The annual trapping survey is now in progress and the results obtained over the next eight weeks are expected to reveal the peak emergence period, potential problem areas and any significant changes in the state moth count. Two early moths were registered in the pheromone trap near Ripon from June 7-13.

**EUROPEAN CORN BORER:** Larvae are primarily in the first and second instars and will begin entering the midribs of corn leaves in the week ahead. The treatment window for first generation corn borers remains open for 1-6 days in the south-central and southwestern counties and about two more weeks elsewhere.

**JAPANESE BEETLE:** The first beetles of the 2012 season could emerge in the next 1-2 weeks. Damage to fruits, perennials, nursery stock and field crops should be anticipated later this month and throughout July.

**APPLE MAGGOT:** Emergence of this fruit fly has begun in southwestern Wisconsin. A single specimen was captured on a yellow sticky trap at the Mineral Point orchard

location. The University of Wisconsin recommends 1 fly per UNBAITED trap (per week) or 5 flies per BAITED trap as the threshold for determining the need for control.



Apple maggot fly

magikcanoe.com

## FORAGES

**POTATO LEAFHOPPER:** Reproduction has intensified with the recent hot weather. Surveys this week found counts of 0.5-2.5 per sweep in the central and southern counties, with an average of 1.3 per sweep. Nymph and adult counts have surpassed the economic threshold of 2.0 per sweep in a small percentage of Juneau, Richland and Sauk County alfalfa fields. Routine monitoring is advised since counts are still variable and not uniformly above the treatment threshold of 1.0 per sweep for 8-11 inch alfalfa and 2.0 per sweep for alfalfa 12 inches or taller.

**ALFALFA WEEVIL:** Larval counts have declined to less than 0.4 per sweep and new adults are appearing in alfalfa, indicating that the weevil season has ended for much of the state. Isolated problems could persist for another week in north-central and northeastern alfalfa. Continued scouting is recommended for these areas.

**PLANT BUG:** Numbers in alfalfa remain well below the economic threshold of 5 per sweep. Counts ranged from 0.1-2.7 per sweep in Grant, Iowa, Juneau, Monroe, Sauk and Richland counties, with an average of 0.9 per sweep.

**VARIEGATED CUTWORM:** This insect continues to be a problem across the state. Reports of larval activity in alfalfa were received from Fond du Lac, Manitowoc, Waupaca and Waushara counties in the past week, although many northern Wisconsin fields are also at risk

## DEGREE DAYS JANUARY 1 - JUNE 13

LOCATION	50°F	2011	NORM	48°F	40°F
Dubuque, IA	1053	721	777	1064	1837
Lone Rock	1049	683	—	1027	1793
Beloit	1090	732	785	1066	1873
Madison	1021	634	747	1016	1767
Sullivan	1006	642	719	994	1747
Juneau	956	588	—	940	1678
Waukesha	863	522	—	847	1564
Hartford	852	509	—	846	1547
Racine	809	453	—	821	1509
Milwaukee	794	447	621	803	1486
Appleton	857	493	672	858	1551
Green Bay	780	423	622	806	1467
Big Flats	924	542	—	889	1603
Hancock	917	538	730	883	1598
Port Edwards	878	518	710	846	1552
La Crosse	1017	639	827	993	1766
Eau Claire	900	555	730	887	1609
Cumberland	757	494	652	750	1426
Bayfield	570	325	—	564	1115
Wausau	771	470	640	767	1405
Medford	768	479	573	788	1420
Crivitz	722	407	—	723	1369
Crandon	677	418	509	669	1274

*Method: ModifiedB50: Sine48: ModifiedB40 as of Jan 1, 2012.  
NORMALS based on 30-year average daily temps, 1981-2010.*

of infestation. Treatment is warranted if alfalfa regrowth fails to properly green up and 2 or more larvae per square foot are detected.

## CORN

**EUROPEAN CORN BORER:** Surveys detected minor infestations affecting 1-12% of plants in 6 of 38 fields checked. First- and second-instar larvae were the predominant development stages in the southern and central areas. Control treatments will become progressively less effective as boring into corn midribs and stalks begins next week. All corn fields in the southern half of the state, both non-Bt and Bt hybrids, should be inspected at this time.

**STALK BORER:** Larval infestations remain light in most corn fields, seldom exceeding 8%, and then primarily near field margins. An occasional field in Grant, Juneau, Richland and Sauk counties had injury rates of 6-11% in

the first four edge rows, but significant damage was not expected since the plants were at the V6-V7 stages.

**CORN EARWORM:** The early migration of moths continued for the sixth week at the Janesville, Prairie du Chien and Ripon pheromone trap sites. Numbers ranged from 1-23 per trap, with the high count registered near Ripon in Fond du Lac County. Larvae resulting from the flight have not been observed as of June 12.

**WESTERN CORN ROOTWORM:** The University of Illinois-Extension reports that western corn rootworm beetles have begun emerging in central Illinois, nearly a month ahead of their usual July 4 date. According to the report, root injury has been documented recently in fields planted to Bt-rootworm hybrids expressing the Cry3Bb1 protein and large numbers of beetles are present at some of these sites. Resistance to the Cry3Bb1 protein among the western corn rootworm beetle population is suspected in Illinois and Wisconsin but has not yet been confirmed. Corn producers in Wisconsin can expect to see the first beetles of the year in 1-2 weeks and evidence of root injury later this month and in July.



Western corn rootworm beetle M. Auer [www.raabauen/Fauna-Insekten](http://www.raabauen/Fauna-Insekten)

## SOYBEANS

**BEAN LEAF BEETLE:** Defoliation ranging from 5-15% was noted on 25-50% of plants in several fields checked in Columbia, Dane, Grant, Green and Juneau counties. Despite widespread feeding injury, very few beetles could be found and treatment was not warranted. Treatment should be considered only for infestations of 39 beetles per foot of row or defoliation in excess of 40% per plant throughout the field.

**VARIEGATED CUTWORM:** Larvae are reportedly causing light to moderate defoliation of soybeans in Fond du Lac County. Economic damage has not been observed or reported thus far. Defoliation levels must reach or exceed the 40% economic threshold for fields to qualify for treatment.



Variegated cutworm damage to soybean

Mike Weiss Syngenta

**SOYBEAN APHID:** Small colonies are appearing in a greater percentage of soybean fields and have been detected thus far in Columbia, Dane, La Crosse, Manitowoc, Marquette and Sheboygan counties. Densities remain below 5 aphids per plant and 9 per infested plant based on examination of 100 plants per field.

## FRUITS

**CODLING MOTH:** Several southern and eastern Wisconsin apple orchards reported large flights of 17-48 moths during the last reporting period. These high counts represent the second peak flight of first brood moths, also referred to as the "B" peak. Sprays applied last month at the standard 250 degree-day (base 50°F) post-biofix threshold will not provide sufficient residual insecticide to control the later hatching larvae resulting from the "B" peak moths, so another spray may be necessary to prevent larval penetration of the fruit later this month and in July.

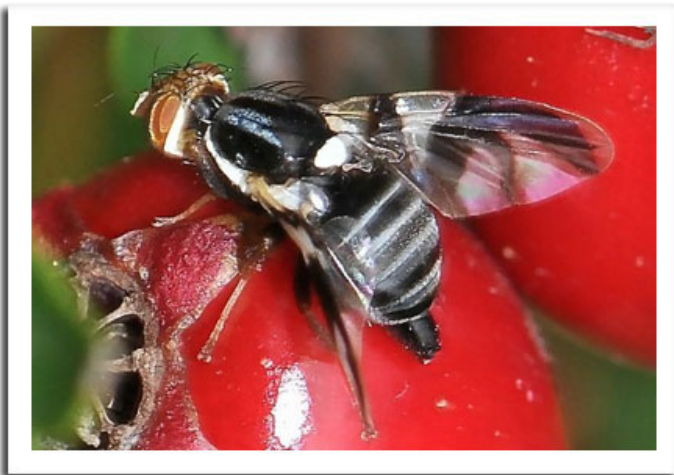
**SPOTTED TENTIFORM LEAFMINER:** The second flight of moths continued this week, with pheromone trap counts ranging from 5-1,013 per trap. The peak in flight activity should occur by June 20 throughout most of southern and central Wisconsin and a week or more later in the southeast, east-central and northern areas. Apple



orchards with populations greater than 1.0 mine per leaf or a history of infestation are candidates for control of second generation leafminer larvae.

**REDBANDED LEAFROLLER:** The orchards in Crawford, Dane, Grant, Iowa, Kenosha and Racine counties registered captures of 19-88 moths during the last reporting period, indicating the start of the second flight of moths. Counts of this pest have been unusually low since mid-May, while counts of the obliquebanded leafroller have remained consistently high at several sites for the last four weeks.

**APPLE MAGGOT:** The first fly appeared on a yellow sticky trap at the apple orchard near Mineral Point in Iowa County from June 7-13, approximately three weeks earlier than last year. Regular checks of red sphere and yellow sticky traps are recommended at this time. The first maggot spray should be applied 7-10 days after the first fly has emerged, with later sprays following at 10-14 day intervals as long as flies are being captured on traps. The apple maggot adult is distinguished from similar fruit flies by an F-shaped wing banding pattern and a pronounced white spot on the thorax.



Apple maggot fly Phil Huntley-Franck

bugguide.net

## VEGETABLES

**COLORADO POTATO BEETLE:** Larvae from overwintered beetles are predominantly in the first and second instars. Bacterial insecticide treatments of *Bacillus thuringiensis* var. *tenebrionis* (Btt) are most effective at this time, while the larvae are very small. Most products persist only 1-2 days and must be reapplied 2-3 times to effectively control populations.

**STRIPED CUCUMBER BEETLE:** Home gardeners are reporting minor damage to cucurbits, especially in the southwest and west-central areas. Treatment may be justified for infestations of 4-5 beetles per 50 plants.



Striped cucumber beetle

Mark Jankura flickr.com

**CORN EARWORM:** Low numbers of migrants have been collected in black light and pheromone traps at scattered sites since early May. The main flight ordinarily does not occur until August, but extra attention to this species in sweet corn may be in order this month.

**CABBAGE LOOPER:** Damaging populations of this typically late-season pest have been reported in cole crops in southeast Wisconsin. Migrants arrived in the state earlier than normal this year and temperatures this month have been very conducive for rapid larval development.

**ONION THRIPS:** Populations are increasing rapidly in response to the recent hot, dry weather. Damage to onions, cauliflower, cabbage, snap beans, cucumbers, melons and tomatoes is probable for areas of the state where dry conditions persist in the week ahead. Onion thrips are most injurious to cabbage and cauliflower, causing whitish blotches or brown blisters on the foliage and reddish-brown areas on the heads. Insecticidal control is justified for actively increasing populations during early cupping to curd formation stages. The threshold is 25 or more thrips per plant for conventional onions and 45 or more per plant for tolerant cultivars.

## WEEDS

**GIANT RAGWEED:** Soybeans are particularly susceptible to giant ragweed competition and require a prolonged

ed ragweed-free period to avoid yield reductions. In Dane and Grant counties, most ragweed plants now average two feet tall and are almost certainly reducing yields. Early-planted soybean fields subjected to ragweed pressure during the last 3-4 weeks could incur losses of 25% or more. Herbicide treatments should be applied before ragweed plants are 6-10 inches tall to avoid losses.



Giant ragweed

Chris Evans

**VOLUNTEER CORN:** Planting continuous corn or rotating soybeans and corn with the same herbicide traits allows volunteer corn plants to persist in fields, unless cultivation is incorporated into the management scheme. Management strategies should account for volunteer corn control since this weed can substantially reduce crop yield and quality, and its prevalence is thought to contribute to development of Bt resistance among corn root-worm populations. Post-emergence grass herbicides are an option for control of volunteer corn in soybeans.

## NURSERY & FOREST

**GOLDEN CANKER:** Nursery inspectors observed this common branch canker on pagoda dogwood trees in Kenosha County. Symptoms include leaf wilting and death followed by branch dieback. Diseased branch tissues turn bright golden-yellow in color and develop numerous small, orange fruiting bodies. Infected branches should be pruned 4-6 inches below the golden-yellow tissue.

**BIRCH LEAFMINER:** The translucent mines indicative of leafminer attack are appearing on 'Royal Frost' birch in St. Croix County. Larvae of this common pest of landscape trees feed inside the leaves of gray, paper, river

and European white birches, forming distinctive blotch mines. Management is usually unnecessary for the health of a tree. Two generations occur per year in Wisconsin, the second of which emerges and begins laying eggs in birch leaves around mid-June.

**THRIPS:** Damage to African daisy, apple, gerbera daisy, marigold and rose was noted at greenhouses in Dodge, Jefferson, Kenosha and Waukesha counties earlier this week. Feeding by these minute insects generally causes stippling on leaves and fruit and may stunt growth. In addition, many thrips species are capable of transmitting plant viruses, including tomato spotted wilt virus and impatiens necrotic spot virus. Proper sanitation is key to thrips management. Thrips reproduce on weeds present in greenhouse settings and pupate in potting soil or other debris. Chemical insecticides are an effective form of control, but should be used in rotation with other materials to prevent resistance in the thrips population.

**GYPSY MOTH:** Moth flight has not yet been observed in Wisconsin. As of June 6, trappers have set 10,064 traps or 53% of the estimated total of 19,000 traps. Larvae in southeastern Clark County were in the fourth instar stage as of June 12. Gypsy moth caterpillars complete 5-6 instars before pupating and emerging as adults.

**VIBURNUM SHOOT SAWFLY:** Nannyberry and blackhawk viburnums in Kenosha County are exhibiting brown, withered terminal shoots caused by larvae of the viburnum shoot sawfly. The adult form is a small, black, wasp-like insect about 1/3 inch long. All infested shoots should be pruned and destroyed to eliminate the larvae feeding inside.



Shoot damage caused by viburnum shoot borer

Liz Meils DATCP

## APPLE INSECT & BLACK LIGHT TRAP COUNTS JUNE 7 - 13

COUNTY	SITE	STLM <sup>1</sup>	RBLR <sup>2</sup>	CM <sup>3</sup>	OBLR <sup>4</sup>	OBLR <sup>5</sup>	AM RED <sup>6</sup>	YELLOW <sup>7</sup>	GDD 50°F
Bayfield	Keystone	0	0	0	0		—	—	
Bayfield	Oriente	1	0	0	0		—	—	
Brown	Oneida	560	0	13	17		—	—	
Chippewa	Chippewa Falls	0	4	24	9		—	—	
Crawford	Gays Mills	1013	24	3	18		—	—	
Dane	Deerfield	744	11	0	—		—	—	
Dane	McFarland	7	67	3	—		0	0	
Dane	Mt. Horeb	111	81	6	17		—	—	
Dane	Stoughton	404	56	17	15		0	0	
Dodge	Brownsville	8	2	12	0		0	0	
Fond du Lac	Campbellsport	100	0	0	33		0	0	
Fond du Lac	Malone	55	3	12	12		0	0	
Fond du Lac	Rosendale	32	7	0	1		0	0	
Grant	Sinsinawa	67	88	4	—		—	—	
Green	Brodhead	22	60	4	5		0	0	
Iowa	Mineral Point	750	33	6	17		1	—	
Jackson	Hixton	22	2	2	3		0	0	
Kenosha	Burlington	150	19	3	1		—	—	
Marinette	Niagara	4	0	67	11		—	—	
Marquette	Montello	361	0	9	35		—	—	
Ozaukee	Mequon	55	0	11	7		0	0	
Pierce	Beldenville	811	0	2	8		0	0	
Pierce	Spring Valley	242	0	2	13		0	0	
Polk	Turtle Lake	*243	*0	*3	*0		—	—	
Racine	Raymond	792	3	35	12		0	0	
Racine	Rochester	750	30	37	40		—	—	
Richland	Hillpoint	560	11	18	44		—	—	
Sheboygan	Plymouth	702	0	48	5		—	—	
Walworth	East Troy	50	0	0	10		—	—	
Walworth	Elkhorn	100	0	0	6		—	—	
Waukesha	New Berlin	800	4	30	17		0	0	

<sup>1</sup>Spotted tentiform leafminer; <sup>2</sup>Redbanded leafroller; <sup>3</sup>Codling moth; <sup>4</sup>Obliquebanded leafroller EASTERN; <sup>5</sup>Obliquebanded leafroller WESTERN; <sup>6</sup>Apple maggot red ball; <sup>7</sup>Apple maggot yellow board. \*Counts represent a 5-day period (June 7-11).

COUNTY	SITE	ECB <sup>1</sup>	TA <sup>2</sup>	BCW <sup>3</sup>	SCW <sup>4</sup>	DCW <sup>5</sup>	CE <sup>6</sup>	CEL <sup>7</sup>	WBC <sup>8</sup>	FORL <sup>9</sup>	VCW <sup>10</sup>
Chippewa	Chippewa Falls	9	0	0	0	2	0	0	0	0	0
Columbia	Arlington	3	1	0	2	0	0	0	0	2	0
Crawford	Prairie du Chien	0	0	0	0	0	0	0	0	0	0
Dane	Mazomanie	5	1	0	1	0	1	0	0	2	4
Fond du Lac	Ripon	2	9	0	0	0	0	0	0	42	0
Manitowoc	Manitowoc	0	8	0	7	0	0	3	0	6	0
Marathon	Wausau	0	27	1	77	0	0	5	0	0	0
Monroe	Sparta	31	0	0	6	0	0	0	0	0	3
Portage	Plover	0	0	0	0	0	0	0	0	1	0
Rock	Janesville	0	0	0	0	0	0	4	0	7	0
Walworth	East Troy	0	0	0	0	0	0	0	0	0	0
Wood	Marshfield	2	7	1	53	0	0	3	0	2	0

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