

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

Periodic rainfall during the week benefited crop establishment but slowed seasonal fieldwork across much of the state. An advancing low pressure system on Monday brought an end to the weekend warm spell, and below-normal temperatures with light to locally moderate showers lingered throughout the week. The rain boosted early-season soil moisture for emerging summer crops and eased concerns about short-term dryness in southern and central Wisconsin, but the wet weather delayed completion of spring tillage and stalled corn and soybean planting. After last week's favorable conditions allowed producers to make double-digit planting gains, statewide planting progress remains well ahead of average. Corn planting advanced 34 percentage points to 56% complete during the week ending May 8, five points behind last year but 28 points ahead of the five-year average. Soybean planting increased 16 points to 18% complete, trailing last year's pace by 1%, but 12 points ahead of the five-year average.

LOOKING AHEAD

BLACK CUTWORM: Another substantial flight of 218 migrants arrived this week, with moths appearing as far north as Durand in Pepin County. Larvae resulting from the annual migration are expected to reach the corn-

cutting fourth-instar stage by May 20 in far southern Wisconsin. The large number of moths captured this spring indicates an increased risk of black cutworm damage to vegetative corn later this month and in early June.

EUROPEAN CORN BORER: Degree day accumulations in advanced portions of southern and west-central Wisconsin should exceed the 374 units (modified base 50°F) required for moth emergence late next week. Black light traps could capture the first moths of the season by May 20 or 21, although the majority of spring adults are unlikely to emerge until the end of the month.

PLUM CURCULIO: Cool weather this week may have delayed weevil migration into orchard perimeter trees, but the first adults and oviposition scars can be anticipated soon after petal fall. Apple growers are advised to examine early cultivars once fruits reach 5 mm for the crescent-shaped scars indicative of plum curculio egg laying. Control treatments are generally directed against the adults to prevent oviposition.

ALFALFA WEEVIL: Larvae are appearing in southern and central Wisconsin alfalfa. Counts this week were very low (< 11 per 100 sweeps) and defoliation was not observed. Sampling for larvae and leaf feeding damage should start by May 16 and continue through first harvest and early second-crop regrowth. A defoliation level affecting 40%

or more of alfalfa stems in the first crop signals the larval population is high and early harvest would be beneficial.



Alfalfa weevil larvae

Krista Hamilton DATCP

GYPSY MOTH: The first aerial treatments of the year are planned for Thursday, May 12 in Crawford, La Crosse, Richland and Vernon counties. Selected sites in each county, totaling approximately 1,800 acres, will receive an application of *Bacillus thuringiensis* var. *kurstaki* or Btk. A second application will be made 3-10 days later. Aerial spraying can start as early as sunrise and will continue until the day's spray plan is complete and as weather conditions allow. Treatment requires calm winds, high humidity and no precipitation.

CODLING MOTH: Emergence could begin late next week in apple orchards where nightly temperatures exceed 62°F and conditions are suitable for moth flight. Close monitoring of traps over the next two weeks is suggested to determine the "biofix" or first sustained moth capture on consecutive nights.

FORAGES & GRAINS

ALFALFA WEEVIL: Larvae were collected from alfalfa in La Crosse and Vernon counties on May 11. Surveys found low counts of 1-11 per 100 sweeps in less than 10% of fields sampled. Regular scouting for larvae and leaf tip feeding is advised beginning at 300 degree days (sine base 48°F), or by May 16 across the northern half of the state. Sampling should be under way in southern Wisconsin.

PEA APHID: Surveys this week yielded counts of 11-260 aphids per 100 sweeps. The average for the period of

DEGREE DAYS JANUARY 1 - MAY 11

LOCATION	50°F	2015	NORM	48°F	40°F
Dubuque, IA	320	379	321	306	621
Lone Rock	297	357	—	280	573
Beloit	327	361	330	319	621
Sullivan	212	240	284	193	412
Madison	268	339	307	252	511
Juneau	217	285	—	203	424
Racine	193	203	—	178	404
Waukesha	212	240	—	193	412
Milwaukee	184	206	240	172	383
Hartford	212	240	—	193	412
Appleton	181	258	—	170	368
Green Bay	145	207	231	137	323
Big Flats	255	324	—	214	438
Hancock	255	324	295	214	438
Port Edwards	245	311	289	212	440
La Crosse	320	374	342	314	615
Eau Claire	281	314	291	263	530
Cumberland	245	271	242	220	439
Bayfield	148	183	—	119	231
Wausau	190	255	242	158	348
Medford	196	246	210	171	365
Crivitz	135	191	—	111	241
Crandon	166	210	193	124	269

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

May 5-11 was 68 per 100 sweeps, a moderate increase from 33 per 100 sweeps the week before. Pea aphid development is favored during periods of cool, dry weather, with populations increasing most rapidly at temperatures around 65°F. Severe infestations early in the season can cause stunting of the first crop and impact subsequent cuttings. This insect is also suspected of transmitting certain alfalfa virus diseases.

TARNISHED PLANT BUG: Representative counts are low and range from 2-28 per 100 sweeps. Small nymphs of the tarnished and alfalfa plant bug species are likely to appear in sweep net collections by late May.

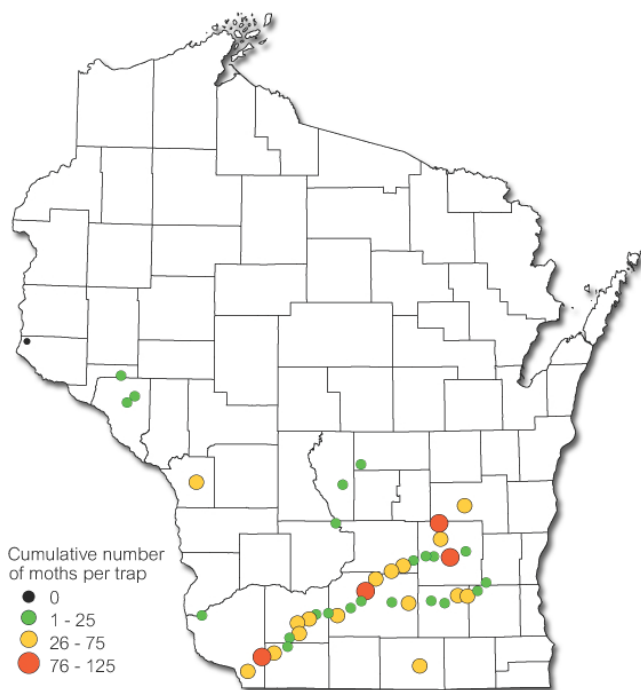
CORN

BLACK CUTWORM: Larvae resulting from the spring migration are expected to reach the destructive late-instar cutting stages by May 20. Signs of cutworm activity in corn, including small, irregular holes in the leaves and

cut plants, could be encountered in the week ahead. Based on the large April-May moth migration and planting delays in the eastern and northern areas, much of the state's corn acreage is considered to be at higher risk of infestation this season. All corn should be closely monitored for cutworm feeding until the V5 stage. Early detection of cutworm problems is critical for insecticide treatments to be effective and economical. The threshold for corn is when 3% of plants are damaged.

Summarized in the map below are cumulative black cutworm counts for the period of March 29-May 11. The spring trapping survey has so far captured 1,388 moths in 43 traps, with a high individual count of 125 moths near Waupun in Dodge County. The last time the annual trapping survey documented a spring moth migration this large was in 2012, when 1,684 moths had been captured in 31 traps by mid-May. Only 196 moths had been collected by this time last year.

Black Cutworm Counts Spring 2016



Wisconsin Department of Agriculture, Trade and Consumer Protection



EUROPEAN CORN BORER: A few early spring adults could emerge late next week in locations such as Beloit, La Crosse and Spring Green, where the 374 degree days (modified base 50°F) required for corn borer flight to begin are likely to be surpassed over the weekend of May 20-21. Black light trappers are advised to carefully

examine trap contents during the next two weeks for the first spring moths.

SOYBEANS

BEAN LEAF BEETLE: Surveys in alfalfa indicate very few overwintered beetles have emerged so far. However, the earliest planted soybean fields may attract larger numbers of beetles this spring and should be monitored for feeding injury after emergence. Beetle mortality is predicted to have been low during the winter of 2015-2016 based on the mild temperatures recorded. Damage by this pest is more common and severe in fields that are first to emerge or are isolated from other soybean acres. Overwintered beetles were collected for the first time this season on May 3 from Richland County alfalfa.



Bean leaf beetle

Steve Scott bugguide.net

FRUITS

SPOTTED TENTIFORM LEAFMINER: The generally lower numbers of moths captured during the May 5-11 reporting period signals most apple orchards are between the first and second flights. Populations in the southern half of the state consist mostly of the early-stage sapfeeder larvae. The recommended scouting procedure is to sample 10 terminals and fruit spurs per tree on 2-3 trees per orchard block 10-14 days after a peak flight has occurred. Sapfeeder mines should be noticeable on the undersides of leaves. The economic threshold is one mine per 10 leaves.

OBLIQUEBANDED LEAFROLLER: The first flight of moths will likely begin by late May. Apple growers who have

experienced late-season OBLR problems in recent years should consider setting additional traps to identify problem areas and help determine where to direct management efforts later this season. Scouting for foliar feeding is also suggested at this time. Control may be warranted if feeding damage affecting more than 5% of terminals or 3% of fruit clusters is observed.



Obliquebanded leafroller moth

Ilona L. bugguide.net

REDBANDED LEAFROLLER: Counts are expected to decline soon in most orchards as the first flight concludes. The average count this week was 87 moths per trap, with a high of 207 moths reported from Stoughton in Dane County. Egg hatch is occurring and larvae are emerging across the southern and central counties.

PLUM CURCULIO: Apple growers are advised to begin examining early season varieties for crescent-shaped oviposition scars and adult weevils. Earlier warm weather during bloom may have prompted the beetles to move into orchard perimeter trees, and activity is expected to resume once evening temperatures increase above 60°F. An insecticide application directed against the adults at petal fall is the conventional form of control when the economic threshold of one oviposition scar or one adult weevil is exceeded. Organic options include PyGanic (pyrethrin) applied to the outer rows and Surround WP (kaolin) on the interior trees. Any treatment targeting the plum curculio should be applied on a warm night when the weevils are most active to maximize efficacy and reduce exposure to pollinators. Scouting multiple times per week will be required to effectively assess the duration of weevil activity and the extent of infestation into orchard interiors.

VEGETABLES

ONION MAGGOT: Peak emergence is anticipated in the Beloit, La Crosse, Lone Rock and Madison areas of south-central and southwestern Wisconsin late next week, following the accumulation of 680 degree days (simple base 40°F). Measured accumulations reached 621 at Beloit, 615 at La Crosse and 573 at Lone Rock as of May 11. Flies of this spring generation are usually the most abundant and damaging, especially at sites where onions are grown in succession. Preventative soil insecticides should be considered if maggot damage to the last season's crop exceeded 5-10%. Home gardeners are advised to rotate this year's onion plantings as far as possible from last year's to reduce the probability of damage.

COLORADO POTATO BEETLE: Emergence of overwintered adults has been noted in west-central Wisconsin, indicating that oviposition on potatoes, tomatoes, eggplants and other host plants should begin before the end of the month. The bright orange-yellow eggs are deposited in clusters of 15-30 on the undersides of leaves. Egg hatch occurs in 4-9 days.



Colorado potato beetle

Phillippe_Boissel flickr.com

SPOTTED CUCUMBER BEETLE: Spring migrants were collected from La Crosse County alfalfa earlier this week. These distinctive yellowish-green beetles with black spots do not overwinter in Wisconsin, but arrive at this time of year on storm fronts originating in the southern United States. Both the spotted species and the striped cucumber beetle are efficient vectors of bacterial wilt of cucumbers, muskmelons and watermelons. Scouting

field edges and interiors multiple times per week is recommended starting in early June.

LATE BLIGHT: Potato growers are reminded that Wisconsin Administrative Code (ATCP 21.15(2)) requires potato cull piles to be fed, disked in or otherwise removed by May 20, to prevent late blight from developing on volunteer plants. Although no cases have been confirmed in Wisconsin so far this season, risk of this disease occurring again in 2016 is elevated given the presence of the late blight pathogen in the state in 2015.

NURSERY & FOREST

BROAD MITES: Mite infestations were found this week on begonias and gerberas at a greenhouse in Racine County. The toxic saliva produced by these tiny (0.3 mm) mites results in curling, hardening and twisting at growing points of the plant, symptoms similar to herbicide damage. Broad mites are best managed by isolating and treating infested plants with an appropriate miticide.



Broad mite damage on impatiens

www.missouribotanicalgarden.org

RHIZOSPHAERA: Discoloration of Black Hills spruce trees in Saint Croix County has been attributed to this fungal disease. Rhizosphaera is characterized by browning and early needle loss starting on the lower branches. Needles are infected in spring, turn yellow in July, and then become purplish-brown by late summer or fall. The presence of rows of small black dots or fruiting bodies on the surface of shed needles is diagnostic. To prevent infection, spruce trees may be treated with a fungicide in spring when the new growth reaches ½-2 inches long, and again 4-6 weeks later.

APHIDS: These insects were observed on various annuals and apple trees at retailers in Ozaukee and Racine counties. Aphids are difficult to control in greenhouses due to their high reproductive capacity and resistance to insecticides. Early detection and control requires weekly scouting of plants prior to flowering. Should treatment be justified, two applications of an insecticide registered for aphid control are typically needed. Insecticidal soaps and horticultural oils kill by contact, so thorough coverage of the undersides of leaves is critical.



Aphids on apple leaves

DATCP Nursery Program

EMERALD ASH BORER: New emerald ash borer (EAB) detections in the past two weeks include the first Wood County find on May 4 in Wisconsin Rapids, as well as confirmed detections in the following nine municipalities, all located in counties with known EAB populations: Brown County (Towns of Glenmore and Morrison); Calumet County (Town of Harrison); Dane County (Town of Albion); Racine County (Village of Wind Point); Rock County (Towns of Beloit, Janesville, Porter and Rock).

Emerald ash borer infestations now occur in 37 of the state's 72 counties. Four additional counties—Iowa, Juneau, Kewaunee and Manitowoc—are also included in the 41-county EAB quarantine based on their close proximity to known infested areas, although EAB has not yet been found in these counties.

APPLE INSECT & BLACK LIGHT TRAP COUNTS MAY 5 - 11

COUNTY	SITE	STLM ¹	RBLR ²	CM ³	OBLR ⁴	APB ⁵	LPTB ⁶	DWB ⁷	AM RED ⁸	YELLOW ⁹
Bayfield	Keystone	—	—	—	—	—	—			
Bayfield	Orienta	0	0							
Brown	Oneida	750	108	0	0	0	0			
Clark	Greenwood	—	—	—	—	—	—			
Columbia	Rio	125	54	0	—	0	0			
Crawford	Gays Mills	266	101	—	4					
Dane	DeForest	—	—	—	—	—	—			
Dane	Edgerton	153	168	—	—	0				
Dane	McFarland	56	94							
Dane	Mt. Horeb	110	111	0	0	3	0			
Dane	Stoughton	91	207	0	0	0	0			
Fond du Lac	Campbellsport	30	63	0	0	4	0			
Fond du Lac	Malone	7	31	0						
Fond du Lac	Rosendale	3	24							
Grant	Sinsinawa	4	46	0						
Green	Brodhead	6	155	0	0					
Iowa	Mineral Point	214	165	0		5	0			
Jackson	Hixton	32	12	0	0	0	0			
Kenosha	Burlington	185	20	0	0	0	0			
Marathon	Edgar	1277	163							
Marinette	Niagara	13	7	—	—	0	0			
Marquette	Montello	243	160							
Ozaukee	Mequon	55	48	0						
Pierce	Beldenville	80	40	0	0	14	0			
Pierce	Spring Valley	154	173							
Racine	Raymond	—	—	—	—	—	—			
Racine	Rochester	340	54	0	0	0	0			
Richland	Hill Point	34	55	0						
Sheboygan	Plymouth	1134	198	—	—	0	3			
Walworth	East Troy	92	25	0	0	0	0			
Walworth	Elkhorn	79	50	0	0	0	0			
Waukesha	New Berlin	—	—	—	—	—	—			

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	0	0	0	0	0	0	0	2	0	0
Columbia	Pardeeville	0	0	0	0	0	0	0	2	0	0
Crawford	Prairie du Chien	—	—	—	—	—	—	—	—	—	—
Dodge	Beaver Dam	0	0	0	0	0	0	0	0	0	0
Fond du Lac	Ripon	0	0	0	0	0	5	0	0	0	0
Marathon	Wausau	—	—	—	—	—	—	—	—	—	—
Monroe	Sparta	0	0	0	0	0	0	0	0	0	0
Rock	Janesville	0	1	0	0	0	2	0	28	0	0
Walworth	East Troy	—	—	—	—	—	—	—	—	—	—
Wood	Marshfield	—	—	—	—	—	—	—	—	—	—

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