

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

Cool, rainy weather stalled spring fieldwork following a week of unseasonable warmth. After the passage of a low pressure system on April 19, temperatures declined considerably from the 60s and 70s to the mid-30s and 40s (degrees F). Gusty winds and brisk conditions persisted throughout the week, with reports of light snow occurring in northern and central Wisconsin. The wide-spread early-week precipitation improved soil moisture conditions across much of the state and eased dryness concerns, especially in the west where crop moisture shortages are most pronounced. Rainfall amounts were mostly light to moderate (¼-½ inch). Although the below-normal temperatures and rain slowed progress made during the brief mid-April warm spell, both spring tillage and planting operations remain well ahead of last year and on pace with the five-year average. Planting of oats, potatoes and corn is expected to resume in full once the weather moderates later next week.

LOOKING AHEAD

BLACK CUTWORM: Moth collections have not increased substantially since the first migrants arrived in the state on April 1. Counts ranged from 0-8 moths per trap for the monitoring period of April 16-22 and from 0-2 per trap the week before. No significant flights into Wisconsin have been documented as of April 22.

BROWN MARMORATED STINK BUG: Six specimens have been found so far in 2015: three from the Madison area of Dane County and three in Milwaukee County. The identifications were confirmed by PJ Liesch of the UW-Madison Insect Diagnostic Lab. The number of new cases this year compares to seven confirmed BMSB reports in 2013 and 2014 combined, and suggests this invasive is established in the state. Reproducing populations are suspected in Dane County, though BMSB still has not been trapped or observed in any agricultural setting in Wisconsin.

EASTERN TENT CATERPILLAR: Overwintered eggs began hatching by April 1 in Rock County following the accumulation of 50 degree days (base 50°F). The first tents are becoming apparent on wild cherry, apple, flowering crabapple and other host trees. Control is advised while the larvae and tents are still small.

ALFALFA WEEVIL: One adult weevil was collected in Grant County on April 17, signaling the start of spring egg deposition in alfalfa stems. Larval emergence remains another two weeks away.

LILY LEAF BEETLE: An April 19 report from Marathon County confirms the winter survival of lily leaf beetle (LLB), a destructive introduced pest of cultivated lilies detected for the first time in Wisconsin last June. Several overwintered beetles were observed on lily foliage at a

residence in Mosinee. Gardeners and homeowners in Marathon County are asked to remain alert for LLB this season and take measures to prevent it from spreading. LLB sightings should be reported to the DATCP Nursery Program at datcpnursery@wisconsin.gov.



Lily leaf beetle

Warrener flickr.com

TRUE ARMYWORM: The first indication of armyworm arrival was during the week of April 8-14 at Janesville in Rock County. Minimal activity has been reported since then, with only 15 adults appearing in black light and pheromone traps. Similar to the black cutworm, this long-range migrant overwinters in the south-central U.S. and arrives in Wisconsin each spring on southerly storm fronts. Outbreaks are sporadic and usually develop during cool, wet years, especially following a drought.

FORAGES & GRAINS

ALFALFA WEEVIL: Surveys in alfalfa indicate overwintered adult weevils have resumed activity and spring egg deposition is under way in far southern Wisconsin. The first appearance of larvae is anticipated by May 10.

PEA APHID: Egg hatch was observed on April 17 in Grant and Richland counties, where nymphs were collected at the very low rate of 1-4 per 100 sweeps. Alfalfa sampled last week in Columbia, Dane, Dodge, Jefferson and Vernon counties contained no aphids. This insect is of primary concern in early spring as new alfalfa seedings are becoming established, with the critical aphid damage period about two weeks before harvest.

TARNISHED PLANT BUG: Adults of this species are currently the most common insect in alfalfa sweep net

DEGREE DAYS JANUARY 1 - APRIL 22

LOCATION	50°F	2014	NORM	48°F	40°F
Dubuque, IA	200	117	158	180	322
Lone Rock	180	96	—	161	284
Beloit	192	124	163	172	316
Sullivan	118	65	134	99	194
Madison	170	89	148	149	266
Juneau	133	63	—	116	213
Racine	100	61	—	86	186
Waukesha	118	65	—	99	194
Milwaukee	99	58	119	85	178
Hartford	118	65	—	99	194
Appleton	112	41	—	95	186
Green Bay	86	32	99	80	158
Big Flats	154	71	—	127	205
Hancock	154	71	135	127	205
Port Edwards	143	60	132	119	205
La Crosse	183	90	162	167	300
Eau Claire	147	61	130	131	236
Cumberland	122	37	99	104	185
Bayfield	89	13	—	72	128
Wausau	105	34	102	89	157
Medford	99	29	84	84	154
Crivitz	74	29	—	59	118
Crandon	80	21	74	63	108

Method: ModifiedB50; Sine48; ModifiedB40 as of Jan 1, 2015. NORMALS based on 30-year average daily temps, 1981-2010.

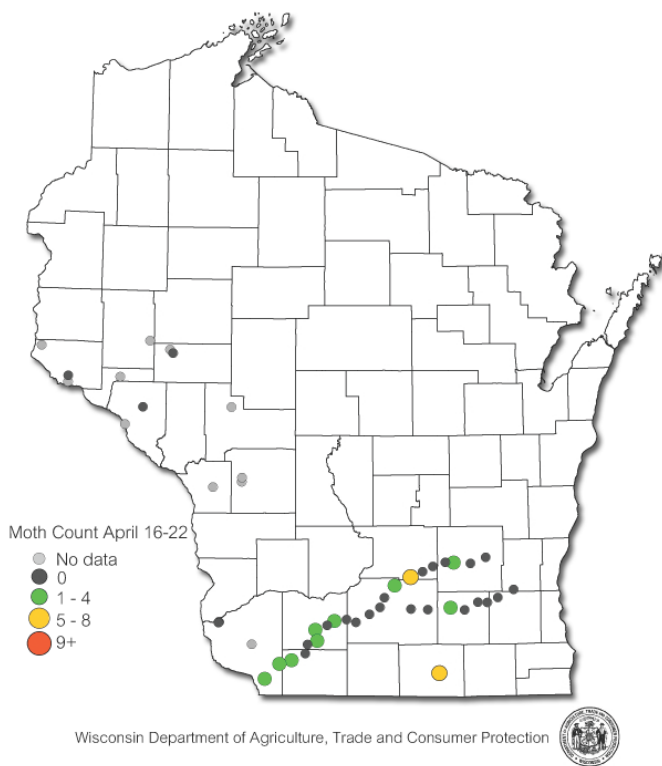
collections, although counts are still very low at fewer than eight per 100 sweeps. Of greater importance than the populations in alfalfa at this time of year, is the fact that these overwintered adults and their nymphs will migrate into apple trees, strawberries and other fruit and vegetable hosts next month where their feeding damage is more significant. Plant bug abundance in alfalfa should be viewed as an indicator of damage potential for other, more susceptible crops.

CORN

BLACK CUTWORM: Moths first arrived in the state three weeks ago, appearing in traps in Columbia and Dane counties on April 1. Counts since then have been low and no significant migration has been noted. The 2015 monitoring network consisting of 42 traps across Buffalo, Columbia, Dane, Dodge, Dunn, Eau Claire, Grant, Iowa, Jackson, Jefferson, Lafayette, Monroe, Pepin, Pierce, Rock and Waukesha counties has thus far registered a

cumulative total of only 33 moths. A projection of peak corn cutting dates will be determined once the first sustained capture of nine or more moths in two nights is documented.

Black Cutworm Counts Spring 2015



TRUE ARMYWORM: Counts in black light and pheromone traps have been low as of April 22. The first moths of the 2015 season were registered at Janesville from April 8-14, which was one week earlier than their April 21 arrival date last year. Another 12 moths were captured this week. Cover crops and spring-killed alfalfa will provide attractive oviposition sites for migrant moths arriving next month, as will small grains. No-tillage fields previously in sod or with small grain cover crops that were not burned down with herbicides early enough in spring usually experience greater problems with true armyworm relative to conventional tillage fields.

FRUITS

SPOTTED TENTIFORM LEAFMINER: The first of three flights expected this season began by April 10 in southern Wisconsin. The apple orchard near Hillpoint in Richland County reported 450 moths this week, which is considered moderate for this apple pest and suggests peak emergence (or trap catch) of spring adults is

approaching. This event can be anticipated at advanced sites during the first or second week of May.

GRAPE FLEA BEETLE: The spring migration of overwintered beetles into vineyards from nearby wooded areas and fencerows has started. Scouting twice weekly for this insect is critical from bud swell until the first leaf separates from the shoot tip, and may be discontinued once shoot growth has reached three inches. Early spring feeding by adult flea beetles damages primary buds, preventing shoot expansion and ultimately reducing grape yields. Plants on the margins of vineyards are at greatest risk of injury. An economic threshold of 5% of buds damaged should be used to determine the need for control.



Grape flea beetle

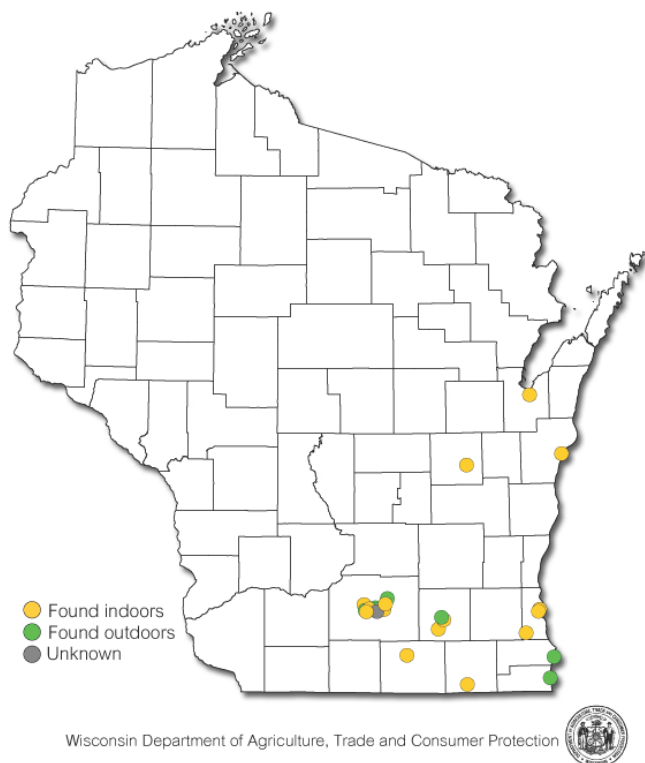
Steven VanTimmeren MSU

REDBANDED LEAFROLLER: Reports indicate RBLR moths began appearing in pheromone traps earlier than STLM moths this month, opposite of the usual emergence sequence. Counts since mid-April have ranged from 0-183 per trap and the first peak flight has not yet occurred. The RBLR degree day model forecasts this early-season event for 200 degree days (simple base 45°F). The accumulation at Madison was 137 degree days as of April 22.

BROWN MARMORATED STINK BUG: Adult specimens have been collected from six Dane and Milwaukee County locations so far in 2015, nearly double the number of reported cases in the previous two years combined. The increase in BMSB sightings may be due to generally warmer weather than in the last two years favoring early spring activity from overwintered stink bugs. Since the first 2010 detection of BMSB in Wisconsin, there have been 25 confirmed reports from 10

counties. Sixteen of the reports involved specimens that were found indoors or inside structures (vehicles, shipping boxes, etc.), another seven cases were of specimens found outdoors, and two reports lacked collection information. Most of the outdoor stink bug detections were made in Dane County, where reproducing populations are suspected. This species has now been detected in 42 states and two Canadian provinces, posing severe agricultural problems in six states and nuisance problems in nineteen others.

BMSB Individual Reports 2010-2015



SPOTTED CUTWORM: Nocturnal feeding by this cutworm and other climbing species can be especially damaging to grape vines during bud swell. Scouting for cutworm activity is recommended through mid-May, particularly for vineyards on light, sandy soils where the risk of cutworm infestation is greatest.

VEGETABLES

COMMON ASPARAGUS BEETLE: The degree-day model for this asparagus pest forecasts the first appearance of overwintered adults from 150-240 degree days (simple base 50°F). The lower range of this threshold will be surpassed in the next two weeks in portions of southern Wisconsin. Scouting for beetles is recommended as soon

as asparagus spears begin emerging from the soil. Control of the adults early in spring, before oviposition starts, is critical for preventing damage.



Common asparagus beetle macrophotoplaisirpassion.blogspot.com

FLEA BEETLES: Growers of early-planted and transplanted leafy vegetables such as spinach and leafy greens are advised to take measures soon to prevent or delay flea beetle infestation of spring crops. Most flea beetle damage occurs in the first two weeks after emergence, so plants should be inspected every 1-2 days during this period. Strategies to reduce flea beetle problems include adjusting planting dates, enclosing seed beds with floating row covers, planting a mustard trap crop, and eliminating weed hosts.

IMPORTED CABBAGEWORM: Adults have been active since early April. The presence of these yellowish-white butterflies around field plantings and home gardens signals eggs are being laid on early-planted broccoli, cabbage, kale and other cole crops. Although serious infestations are rare at this time of year, Btk products applied while the larvae are small can be very effective.

NURSERY & FOREST

VIRUSES OF ORNAMENTALS: Recent greenhouse inspections conducted in Adams, Chippewa, Eau Claire, Kewaunee and Outagamie counties found an assortment of virus-infected plants. Viruses of ornamental plants are highly transmissible through routine greenhouse operations and have become increasingly prevalent in the nursery trade. Viral diseases detected this month include hosta virus X on hosta 'August Moon' and 'Sum & Substance', tobacco rattle virus on bleeding heart 'Alba'

and 'Pink', and a potyvirus on bearded iris 'Immortality'. Another virus new to Wisconsin, tomato chlorotic dwarf viroid, was diagnosed on petunia 'Peppy Lavender' and on a supertunia hybrid. There are no controls for plant viruses. Once a plant is infected, it must be removed from sale and destroyed.



Tobacco rattle virus on bleeding heart

Liz Meils DATCP

NR 40 INVASIVE SPECIES RULE: Many aquatic and terrestrial plants commonly used in the nursery industry will be listed as prohibited or restricted once revisions to the DNR's Chapter NR 40 Invasive Species Rule take effect this season. The addition of 49 new prohibited plant species, 32 new restricted plants, and two species that will be listed as both prohibited and restricted has been proposed. The rule revision provides a three-year phase-out period for herbaceous species on the restricted list, and a five-year phase-out period for restricted trees and shrubs. Plants on the prohibited list will not have a phase-out option. Nursery operators and brokers are advised to review the proposed revisions and know the invasive plants regulated under Chapter NR40: <http://dnr.wi.gov/topic/Invasives/classification.html>.

LILY LEAF BEETLE: Overwintered beetles were observed on lily foliage at a residence in Marathon County on April 19, confirming the winter survival of this newly-introduced exotic invader. Detected for the first time in Wisconsin last June, lily leaf beetle (LLB) has been reported from at least 17 separate sites, all in the Kronenwetter, Mosinee and Rothschild areas of Marathon County.

Currently the LLB population appears to be limited to Marathon County, thus control or eradication may still be possible with diligence of local communities. Gardeners, nursery growers and residents are encouraged to closely

inspect lily plants for the bright red beetles and their larvae and report any finds to the DATCP Nursery Program at datcpnursery@wisconsin.gov. Recommended controls include manually picking the adults and larvae from plants or applying an insecticide labeled for use on ornamental plants and available at garden centers and hardware stores. More than one application may be required to effectively control LLB.



Lily leaf beetles

Reeser Manley

EMERALD ASH BORER: The treatment window for soil-applied systemic insecticides used to protect ash trees from EAB extends from mid-April to mid-May. Application during this period allows 4-8 weeks for the material to be transported throughout the tree's vascular system prior to the onset of EAB adult and larval feeding. By contrast, trunk injection and basal bark spray products are applied later, during the period after bloom and leaf expansion but before eggs have hatched, generally from mid-May to mid-June. Emerald ash borer treatments must be made annually or every two to three years depending on the product used and local EAB pressure, and are only recommended for healthy, high-value ash trees within 15 miles of a known infestation. Owners of trees larger than 20 inches in diameter at breast height (DBH) are advised to consult a certified arborist or tree care specialist to have their ash professionally treated with a product that can provide full protection of mature trees from EAB.

APPLE INSECT & BLACK LIGHT TRAP COUNTS APRIL 16 - 22

COUNTY	SITE	STLM ¹	RBLR ²	CM ³	OBLR ⁴	AM RED ⁵	YELLOW ⁶
Bayfield	Orienta	0	0				
Brown	Oneida	—	—				
Clark	Greenwood	45	14				
Columbia	Rio	0	0				
Dane	Deerfield	—	—				
Dane	DeForest	4	57				
Dane	Edgerton	78	124				
Dane	McFarland	—	—				
Dane	Mt. Horeb	—	—				
Dane	Stoughton	6	115				
Fond du Lac	Campbellsport	0	0				
Fond du Lac	Malone	22	20				
Fond du Lac	Rosendale	14	5				
Grant	Sinsinawa	86	107				
Green	Brodhead	8	54				
Iowa	Mineral Point	130	83				
Jackson	Hixton	—	—				
Kenosha	Burlington	0	84				
Marathon	Edgar	386	36				
Marinette	Niagara	—	—				
Marquette	Montello	324	104				
Ozaukee	Mequon	2	25				
Pierce	Beldenville	—	—				
Pierce	Spring Valley	0	52				
Racine	Raymond	0	0				
Racine	Rochester	14	42				
Richland	Hillpoint	450	89				
Sheboygan	Plymouth	0	0				
Walworth	East Troy	1	4				
Walworth	Elkhorn	14	183				
Waukesha	New Berlin	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
Columbia	Arlington										
Crawford	Prairie du Chien	0	1	0	0	0	0	0	0	1	0
Dane	Mazomanie										
Fond du Lac	Ripon										
Manitowoc	Manitowoc										
Marathon	Wausau										
Monroe	Sparta										
Portage	Plover										
Rock	Janesville	0	11	0	0	0	0	0	0	0	1
Vernon	Coon Valley										
Walworth	East Troy										
Wood	Marshfield										

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