

# 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 massive and powerful low pressure system brought an extended period of cloudy, wet and windy weather to Wisconsin during the final week of April. Occasional rain and isolated thunderstorms occurred across the state, as high temperatures remained unseasonably cool in the lower 40s to mid-50s. The showery conditions halted the limited amount of fieldwork that had begun during a brief two-week window of opportunity in mid-April and left fields saturated. At the start of the week, spring tillage was only 9% complete statewide, slightly more than double last year's dismal pace of 4%, but far below the five-year average of 33%. Oat producers had seeded just 13% of the state's crop compared to 4% last year and a 47% five-year average. Despite a sluggish start to the 2014 growing season, Wisconsin farmers remain optimistic for warm, dry weather and an early-May planting window to offset this month's fieldwork delays.

## LOOKING AHEAD

**BLACK CUTWORM:** Moth activity has not increased substantially since the first migrants were detected in the state three weeks ago. Counts ranged from 0-12 moths per trap for the monitoring period of April 24-30 and from 0-9 per trap the week before. No significant flights into Wisconsin have been documented as of May 1.

**ALFALFA WEEVIL:** One adult weevil was collected in Richland County on April 22, signaling the start of spring egg deposition in alfalfa stems. Larval emergence remains another two weeks away.

**GRAPE FLEA BEETLE:** The spring migration of overwintered beetles into vineyards from nearby wooded areas and fencerows is under way. Biweekly scouting is suggested through early May for the southern and western counties and mid-May in eastern Wisconsin. Feeding by adult flea beetles at this time of year damages primary buds, preventing shoot expansion and ultimately reducing grape yields. Plants on the margins of vineyards are at greatest risk of injury. Treatment is justified if 5% or more of buds are damaged.

**GYPSY MOTH:** Egg hatch was observed on April 30 in Rock County. This event occurred on May 6 last year, April 2 in 2012, and is about 10 days behind the historical average this spring. Aerial spraying directed against first and second-instar larvae is tentatively scheduled to begin the week of May 19 in southern Wisconsin. Lower temperatures and late-season snowstorms in the northern part of the state could delay treatments there for an additional two weeks.

**WINTER INJURY:** Considerable winter injury to coniferous and broadleaf evergreens is apparent statewide after one of the ten coldest winters in recorded Wisconsin history.

No immediate action is required for trees and shrubs showing reddened foliage, needle loss, or other injury symptoms since most plants still have live buds that will produce new growth to eventually fill in damaged sections. Pruning should be delayed until the buds open later this month and the full extent of injury can be assessed.

**EASTERN TENT CATERPILLAR:** Overwintered eggs began hatching by April 15 in Green County following the accumulation of 50 degree days (base 50°F). The first tents should become apparent next week on wild cherry, apple, flowering crabapple and other host trees. Control is advised while the larvae and tents are still small.



Eastern tent caterpillar

minnesotaseasons.com

## FORAGES & GRAINS

**ALFALFA WEEVIL:** Limited surveys in alfalfa indicate overwintered adults have resumed activity and spring egg deposition is under way in far southern Wisconsin. The unseasonably cool weather of April is expected to delay the first appearance of larvae until May 18 or later.

**PEA APHID:** Degree day accumulations (base 40°F) are suitable for egg hatch as far north as Portage County. The first wingless female aphids were observed on May 7 last season, on March 19 in 2012, and are usually active by now. This insect is of primary concern in early spring as alfalfa stands are becoming established and again around the time the first crop is harvested.

**SEPTORIA LEAF BLOTCH:** A continuation of rainy, cold weather in May could favor development and spread of this fungal leaf spot disease, potentially reducing grain

## DEGREE DAYS JANUARY 1 - APRIL 30

LOCATION	50°F	2013	NORM	48°F	40°F
Dubuque, IA	139	110	218	126	245
Lone Rock	110	90	—	99	208
Beloit	153	131	224	138	270
Madison	102	89	207	92	201
Sullivan	74	105	190	63	149
Juneau	72	79	—	64	147
Waukesha	74	82	—	63	149
Hartford	74	70	—	63	149
Racine	70	77	—	66	157
Milwaukee	67	68	161	59	140
Appleton	47	60	—	40	108
Green Bay	38	48	147	32	93
Big Flats	78	60	—	66	128
Hancock	78	63	195	66	128
Port Edwards	66	54	190	54	110
La Crosse	103	65	229	87	179
Eau Claire	68	55	190	57	120
Cumberland	40	48	152	30	58
Bayfield	13	32	—	10	17
Wausau	36	47	155	30	67
Medford	29	46	131	26	59
Crivitz	32	42	—	27	60
Crandon	22	42	118	18	36

*Method: ModifiedB50; SineB48; ModifiedB40 as of Jan 1, 2014. NORMALS based on 30-year average daily temps, 1981-2010.*

yield by as much as 30% in susceptible varieties. Symptoms were observed for the first time this season on April 11 in winter wheat plots at the Arlington Research Station in Columbia County.

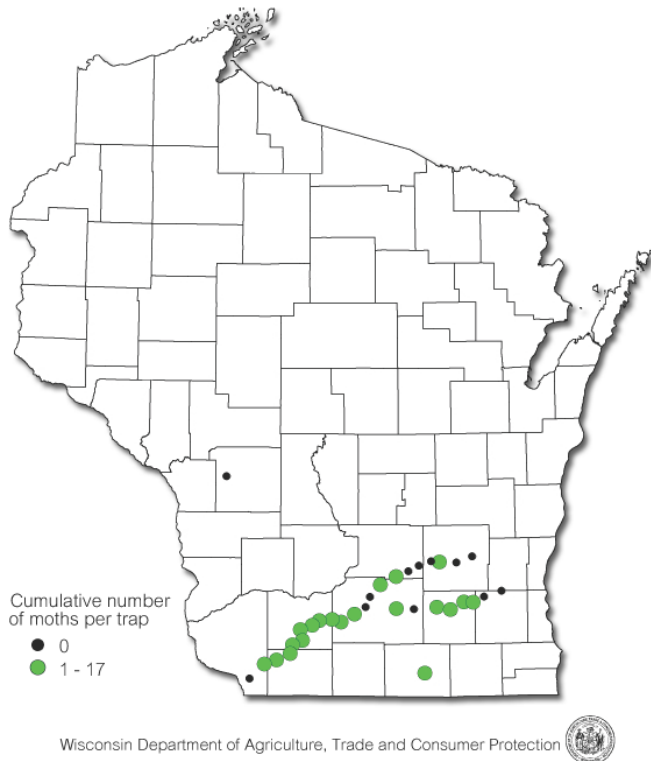
## CORN

**SEEDCORN MAGGOT:** Corn establishment problems due to this soil pest are likely for some areas of the state this spring if cool, wet weather persists. Outbreaks of seedcorn maggot are sporadic but occur in years when seed germination and emergence are delayed by low temperatures and damp soils, allowing the subterranean maggots to feed longer. Early signs of maggot infestation are slow seedling emergence and poor stand establishment.

**BLACK CUTWORM:** Moths arrived in the state three weeks ago, first appearing near Janesville in Rock County on April 13. Counts since then have been low and

no significant migration has been noted. The 2014 monitoring network consisting of 32 traps across Columbia, Dane, Dodge, Grant, Iowa, Jefferson, Lafayette, Monroe, Rock and Waukesha counties has thus far registered a cumulative total of 89 moths, or three per trap. A forecast of peak corn cutting dates will be issued once the first sustained capture of nine or more moths in two nights is documented.

### Black Cutworm Counts 2014



**EUROPEAN CORN BORER:** According to the findings of last fall's survey, the overwintered generation of larvae should produce an extremely small flight of moths next month. The annual European corn borer survey found a state average of only 0.04 borer per plant or 4 per 100 plants, the second lowest population in the last 72 years.

**TRUE ARMYWORM:** The first indication of armyworm arrival was on April 21 near Janesville in Rock County. Minimal activity has been reported in the subsequent two weeks, with only five 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. Larval outbreaks are infrequent and usually develop during cool, wet years, especially following a drought.

## FRUITS

**SPOTTED TENTIFORM LEAFMINER:** The first of three flights expected this season began on April 20 in southern Wisconsin. A moderate count of 182 moths was reported from Grant County last week, but elsewhere traps have registered fewer than 60 moths per week, which is considered low for this apple pest. Peak emergence of first brood adults can be anticipated at advanced sites in the next two weeks.

**GRAPE FLEA BEETLE:** Grape growers should be aware that the cool weather this spring may result in buds swelling over a longer period, extending the window during which buds are susceptible to flea beetle feeding. Scouting for this insect is most critical from bud swell until the first leaf separates from the shoot tip and may be discontinued once shoot growth has reached three inches. An economic threshold of 5% should be used to determine the need for control.



Grape flea beetles and bud injury

[www.omafra.gov.on.ca](http://www.omafra.gov.on.ca)

**REDBANDED LEAFROLLER:** Moths are appearing in pheromone traps across the southern and central counties. Counts since mid-April have ranged from 0-61 per trap and the first peak flight has not yet occurred. The RBLR degree-day model forecasts this early-season event for 106-160 degree days (base 50°F).

**SPOTTED CUTWORM:** Nocturnal feeding by this cutworm and other climbing species can be especially damaging 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

**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 invasion of spring crops. Most flea beetle damage is sustained 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.

**COMMON ASPARAGUS BEETLE:** The degree-day model for this asparagus pest forecasts the first appearance of adults from 150-240 degree days (base 50°F). The lower range of this threshold will be surpassed next week in several southern Wisconsin locations.



Common asparagus beetle

Cor Zonneveld [www.corzonneveld.nl](http://www.corzonneveld.nl)

## NURSERY & FOREST

**WINTER INJURY:** After an exceedingly long and cold winter season, many conifers and broadleaf evergreens throughout the state are showing reddening of needles caused by winter burn, winter desiccation, or both. Symptoms of the former appear in response to rapid temperature fluctuations in late winter and early spring, while the latter develops when moisture lost through transpiration cannot be replaced due to frozen soil, resulting in dehydration. Foliar discoloration is typically more severe on southern and western exposures which receive more direct sunlight. Damage usually affects the needles and not the buds, and often resolves by early

summer. Pruning affected branches should be postponed until new growth emerges later this month or in June.



Winter injury on yew shrubs

Krista Hamilton DATCP

**NURSERY INSPECTIONS:** Early-season greenhouse inspections conducted in Brown, Chippewa, Eau Claire, Kewaunee, Pierce and Sawyer counties in the past month indicate plant viruses, particularly hosta virus X (HVX), tobacco mosaic virus (TMV), and tobacco rattle virus (TRV), may be a common problem for Wisconsin nursery growers and retailers again in 2014. A variety of plant hosts were found to be infected, including astilbe 'Stand and Deliver', dicentra 'Alba' and 'Pink', and delphinium 'Dark Blue' and 'Dark Bee' with TRV, hosta 'Sum and Substance' with HVX, and petunia 'Potunia Plus Papaya' with TMV. All three viruses are highly transmissible through routine greenhouse operations and have become increasingly prevalent in the nursery trade.



Hosta virus X on 'August Moon' Alan Windham University of Tennessee

There are currently no controls for plants infected with viruses. Once plants are diagnosed with HVX, TMV,

TRV, or any virus, they must be removed promptly from the growing area and destroyed. Other pests encountered during April greenhouse inspections were Botrytis, crown rot and spider mites.



Tobacco rattle virus on bleeding heart Anette Phibbs DATCP

**EMERALD ASH BORER:** Soil-applied systemic insecticide treatments intended to prevent EAB infestation should be applied in early spring, from mid-April to mid-May. Application during this window allows 4-6 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 bark spray products are before eggs have hatched, generally from mid-May to mid-June.



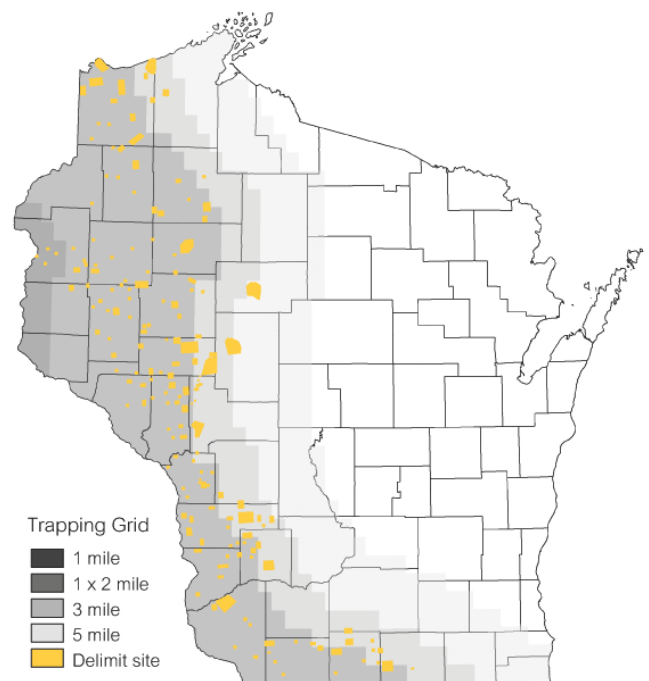
EAB trunk injection treatment Alicia Abercrombie journaltimes.com

Emerald ash borer treatments are costly, 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 or in a quarantined county.

Owners of trees larger than 15 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 insecticides labeled for application at a higher rate.

**GYPSY MOTH:** The start of the annual trapping survey for male gypsy moths is scheduled for May 12 in the southern half of the state and one week later in the northern half. Approximately 13,400 pheromone traps will be set in 2014. High density trapping (one trap per sq. mile) is planned for portions of four far western counties, medium density trapping (one trap per two sq. miles) is planned for parts of 24 counties, and lower density trapping (one trap per three or five sq. miles) is planned for portions of 24 other counties, from Kenosha in the southeast to Bayfield in the far north. One hundred and seventy-two delimitation sites will be trapped at a higher density of one, four, or nine traps per square mile to evaluate the effectiveness of previously treated sites or delineate infestation boundaries. No traps will be set in the “generally infested” eastern counties of the state. Larval populations and moth counts may be lower this year than in 2013 due the extended winter with record cold temperatures.

### Gypsy Moth Trapping Plan 2014



## APPLE INSECT & BLACK LIGHT TRAP COUNTS APRIL 24 - MAY 1

COUNTY	SITE	STLM <sup>1</sup>	RBLR <sup>2</sup>	CM <sup>3</sup>	OBLR <sup>4</sup>	AM RED <sup>5</sup>	YELLOW <sup>6</sup>
Bayfield	Keystone						
Bayfield	Oriente						
Brown	Oneida						
Chippewa	Chippewa Falls						
Dane	Deerfield						
Dane	McFarland	28	10				
Dane	Mt. Horeb	0	3				
Dane	Stoughton	11	4				
Dodge	Brownsville						
Fond du Lac	Campbellsport	0	0				
Fond du Lac	Malone	0	0				
Fond du Lac	Rosendale						
Grant	Sinsinawa						
Green	Brodhead	0	34				
Iowa	Mineral Point	0	13				
Jackson	Hixton						
Kenosha	Burlington	25	14				
Marathon	Edgar						
Marinette	Niagara						
Marquette	Montello	46	2				
Ozaukee	Mequon						
Pierce	Beldenville						
Pierce	Spring Valley						
Polk	Turtle Lake						
Racine	Raymond						
Racine	Rochester	16	7				
Richland	Hillpoint	60	3				
Walworth	East Troy						
Walworth	Elkhorn						
Waukesha	New Berlin						

<sup>1</sup>Spotted tentiform leafminer; <sup>2</sup>Redbanded leafroller; <sup>3</sup>Codling moth; <sup>4</sup>Obliquebanded leafroller; <sup>5</sup>Apple maggot red ball; <sup>6</sup>Unbaited AM trap; <sup>\*\*</sup>Baited AM trap; <sup>6</sup>Apple maggot yellow board; \*Counts represent a two-day monitoring period.

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										
Columbia	Arlington										
Crawford	Prairie du Chien										
Dane	Mazomanie										
Fond du Lac	Ripon										
Manitowoc	Manitowoc										
Marathon	Wausau										
Monroe	Sparta										
Portage	Plover										
Rock	Janesville	0	1	0	0	0	0	1	0	0	0
Vernon	Coon Valley										
Walworth	East Troy										
Wood	Marshfield										

<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.