

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

Weather conditions fluctuated considerably in the past week. The Memorial Day weekend was warm and sunny over most of the state, but temperatures decreased abruptly from May 27-28 and remained below normal during the balance of the week. Daily maximum and minimum temperatures deviated by as much as 40 degrees in some locations and very few degree days were accumulated. Development of crops and insects continues to be delayed, and the season now varies from 9-16 days behind normal and 11-21 days behind last year. Although nearly 100% of corn and about 55% of the intended soybean acreage has been planted, emergence of both crops is occurring very slowly. The warmer weather expected next week should cause a marked increase in insect numbers and activity.

LOOKING AHEAD

POTATO LEAFHOPPER: Adults were collected from 5 of 10 Columbia County alfalfa fields on May 28 at the rate of 1-2 per 50 sweeps. Surveys in the adjacent Adams and Juneau counties and in Crawford and Vernon counties found no additional potato leafhoppers, suggesting that very few adults are present in the state. Migrant potato leafhoppers typically appear at this time and become a problem soon after the first crop of alfalfa is harvested.

COLORADO POTATO BEETLE: Emergence of this pest (the distinctive beetle featured in each issue of the Wisconsin Pest Bulletin) is underway and overwintered adults have started to colonize potato fields. Egg deposition is expected to begin during the first week of June and continue for a period of 2-4 weeks.

BLACK CUTWORM: Anticipate cutworm problems in fields that were flooded earlier this spring and those with grassy weed infestations. Early detection and control is advantageous because later treatment is not always effective and replanting is comparatively expensive. Light injury was noted this week at scattered sites in south central counties.

EUROPEAN CORN BORER: The first moths of the season were captured in black light traps by May 29, but it will likely be several more weeks before substantial flights are noted. Female moths should begin to deposit eggs in the tallest corn fields in areas where 450 degree days (base 50°F) accumulate in the next week.

PLUM CURCULIO: Emergence and activity of this pest continues to be postponed by below normal spring temperatures. Warmer conditions are forecast for the weekend of May 30-31, which may activate the adult migration period. Spray applications directed against plum curculio should be timed to prevent egg laying.

FORAGES

ALFALFA WEEVIL: Larval populations in the southern third of the state continue to be low, with the average being about 6 per 50 sweeps. Harvest is well underway and it is anticipated that most first growth alfalfa will be cut before any significant damage occurs. Fields sampled in Columbia, Crawford, Fond du Lac, Monroe, Sheboygan and Vernon counties contained populations of 1st-3rd instar larvae ranging from 0-13 per 50 sweeps. Tip feeding was less than 5% in all of the fields, although damage should become more conspicuous in unharvested fields by next week, as a fraction of the larvae have matured to the 3rd instar stage and are capable of consuming more foliage.

ALFALFA PLANT BUG: Nymphs were collected for the first time this spring in Columbia County alfalfa and wheat fields on May 28 at the rate of 0-5 per 50 sweeps. Counts of all plant bug species combined should not exceed 5 adults and nymphs per sweep at any point during the growing season.



Alfalfa plant bug nymph

Krista Hamilton DATCP

TARNISHED PLANT BUG: Adult of this species are the most abundant plant bug in alfalfa at this time, with counts averaging 6 per 50 sweeps in the southern, central and east central fields. Reproduction was noted by May 19, but few nymphs were found during surveys this week.

PEA APHID: Populations are gradually escalating and currently average 15 per 50 sweeps in Columbia County, 8 per 50 sweeps in Crawford County, 6 per 50 sweeps in Fond du Lac County, 5 per 50 sweeps in Sheboygan

DEGREE DAYS MARCH 1 - MAY 29

LOCATION	50°F	2007	NORM	48°F	40°F
Dubuque, IA	389	650	—	404	820
Lone Rock	359	609	—	348	736
Beloit	409	618	—	413	830
Madison	344	561	518	338	717
Sullivan	390	542	505	379	778
Juneau	366	528	—	353	735
Waukesha	335	510	—	325	705
Hartford	328	510	—	317	691
Racine	284	467	—	279	648
Milwaukee	282	468	388	276	640
Appleton	301	485	430	287	633
Green Bay	258	421	411	247	587
Big Flats	325	542	—	295	642
Hancock	327	528	522	300	646
Port Edwards	311	521	483	284	614
La Crosse	345	648	560	335	709
Eau Claire	308	563	492	289	626
Cumberland	266	510	455	234	549
Bayfield	172	343	308	141	410
Wausau	275	468	429	243	551
Medford	252	459	374	220	520
Crivitz	237	395	—	216	539
Crandon	233	412	369	191	478

Method: ModifiedB50; Sine48; ModifiedB40 as of March 1, 2008. NORMALS based on 30-year average daily temps, 1971-2001.

County, and 7 per 50 sweeps in Vernon County. Adults have not yet been observed in peas.

MEADOW SPITTLEBUG: Spittle masses are increasing in size and nymphs presently are about ¼ to ½ grown. The highest population encountered in the central and south central counties was 3 per 50 sweeps, which is extremely low relative to the economic threshold of 1 nymph per stem.

SOYBEANS

BEAN LEAF BEETLE: Surveys in alfalfa are incomplete, but continue to indicate low winter survival of the bean leaf beetle, *Ceratoma trifurcata*. Field specialists collected just 9 additional beetles from 45 randomly selected alfalfa fields in the past week, bringing the survey total to 21 beetles from 139 sites sampled in 24 southern and east central counties as of May 29. This compares to 486 beetles collected in the same counties when a

similar survey was conducted last spring. Preliminary indications are that overwintered bean leaf beetles are scarce and the risk for substantial defoliation to early emerging soybeans is low.



Bean leaf beetle (red color phase)

Krista Hamilton DATCP

SOYBEAN APHID: Expect the first soybean aphids of the 2008 growing season to begin colonizing Wisconsin soybean fields by early to mid-June. Previous first detections occurred on May 24 in 2007, June 7 in 2006, and June 3 in 2005. Based on suction trap counts registered last fall, lower populations of soybean aphids are predicted for this summer. The Wisconsin network of 7 traps captured a total of just 11 soybean aphids in September and October 2007, the lightest fall migration on record since a formalized suction trapping program was initiated in 2005.

CORN

EUROPEAN CORN BORER: The first flight of corn borers began this week with the capture of moths at the Janesville and Mazomanie black light trap locations. On the basis of projected degree day accumulations, the majority of moths should be expected by June 13-19 in the southern and central counties and a week or more later in the east central and northern counties. Weather will be the determining factor in how successful the first flight is in mid-June. If below normal temperatures persist and degree days continue to accumulate slowly, the adult emergence and egg laying period is likely to be prolonged.

BLACK CUTWORM: Light leaf feeding damage attributed to this insect was observed in the marginal 4 rows of

seedling corn in southwest Columbia County. Since fewer than 2% of the plants were estimated to be affected, the grower was not notified. This observation emphasizes the need for close surveillance of emerging corn fields in the next week and throughout June to prevent cutting by black cutworm larvae.

SEEDCORN BEETLE: High numbers of these beetles appeared in the black light trap at Mazomanie in western Dane County during the May 23-29 reporting period. Corn emergence has been slow due to recent cool temperatures, and it is possible for scattered fields to sustain some degree of damage.

WEEDS

COMMON LAMBSQUARTERS: This weed was the most prevalent and abundant species observed in V2-V3 corn in Dane County in the past week. Plants were ½-1 inch tall as of May 28. Depending on the herbicide mix used, seedlings should be controlled at a maximum height of 1½ - 12 inches. Refer to the UW Extension publication <http://learningstore.uwex.edu/pdf/A3646.PDF> for specific herbicide recommendations. Control ratings will not be accurate if herbicides applied after the maximum plant height is surpassed. Cultural control measures include suppressing populations by adding a small grain or forage crop into the rotation, flaming plants ½ inch tall or less, rotary hoeing plants ¼ inch tall or less, or tilling at night to avoid triggering emergence.



Common lambsquarters

Clarissa Hammond DATCP

COW PARSNIP: Plants in Richland and Crawford counties are now 4 feet tall and should begin to flower

late next week. Cow parsnip is very similar in appearance to the invasive species giant hogweed, but has much smaller leaves and is much shorter in height. The sap from both plants is phototoxic and causes skin to blister when exposed to ultraviolet light.

DAME'S ROCKET: Purple dame's rocket flowers are conspicuous in ditches and along roadsides in the southern third of the state. This species is not problematic in field crops, but as a prolific producer of seeds, may expand into and overrun disturbed areas. Its seeds are a good food source for ground foraging birds.



Dame's rocket

Clarissa Hammond DATCP

FRUITS

CODLING MOTH: Reports of high captures exceeding 5 moths per trap were received from Brown, Crawford, Dane, Iowa, Ozaukee, Racine, Sheboygan and Waukesha counties during the May 23-29 monitoring period, and the biofix was set at 8 locations. The high count for the week was 73 moths registered near Gays Mills in Crawford County. Pheromone trap numbers are expected to increase as the peak of the first flight approaches in southern orchards. First generation eggs should begin to hatch in orchards next week following the accumulation of 491 degree days (base 50°F).

EASTERN TENT CATERPILLAR: These insects have foraged heavily in recent days and typical defoliation of infested roadside trees is 70-100% in southern and central Wisconsin. As an informal measure of the degree of infestation this season, 81 tents were counted per one-mile of county road near Portage in Columbia County and 16 of the infested trees were completely defoliated.

Larvae have started to show signs of pupation and may begin to migrate in the next week.

SPOTTED TENTIFORM LEAFMINER: Adult emergence peaked in Bayfield County from May 16-29 and trap counts are on the decline in central and northern orchards. Assessments to determine the average numbers of mines per leaf should be performed at this time.

OBLIQUEBANDED LEAFROLLER: The first appearance of obliquebanded leafroller adults occurs much later than the other fruit moths monitored by the DATCP trapping network, around 490 degree days (base 43°F). This species overwinters in the early larval stages and must complete development before emerging in late May or early June. By contrast, the spotted tentiform leafminer and redbanded leafroller overwinter as pupae ready to take flight by early April. Pheromone trap counts for the week of May 23-29 ranged from 0-13 moths.

NOTE: There was an error concerning obliquebanded leafroller emergence in the May 16, 2008 issue (Vol. 53 No. 5). On Page 33, the base temperature listed should read 43°F and not 50°F.

TARNISHED PLANT BUG: Strawberry plants starting to bloom should be checked weekly for nymphs and adults. Nymph production was first noted on May 19 in Dane County. Sprays applied when 1st and 2nd instar nymphs become active generally are very effective and may eliminate the need for a second treatment. The economic threshold for this insect in strawberries is 4 adults per 20 sweeps at first flower bud formation or 1 nymph per 1-4 clusters once flower bud stems have elongated but before flowers start to open. Further explanation and control recommendations are available through the UW-Extension Publication A1934, Strawberry and Raspberry Pest Management in Wisconsin, at: <http://learningstore.uwex.edu/pdf/A1934.pdf>

VEGETABLES

IMPORTED CABBAGEWORM: First generation larvae are appearing in the southern half of the state. Cabbage fields should be monitored weekly for the yellow eggs laid singly on various plant parts and the velvety green larvae with a yellow, longitudinal stripe. The economic threshold for this pest in cabbage is 30% infestation at

the transplant to cupping stages, 20% infestation at cupping to early head, and 10% infestation at early head to harvest stages.

STRIPED CUCUMBER BEETLE: Seedling and transplanted cucurbits such as cucumbers, squash, melons, and pumpkins currently are at risk of direct feeding injury and bacterial wilt transmission by striped cucumber beetles. Scouting field edges and interiors 2-3 times per week is advised this month. Populations should not exceed 4-5 beetles per 50 plants.



Striped cucumber beetle

Naomi Smith i/pbase.com

ONION MAGGOT: Peak emergence of onion maggot flies occurred this week in the southern and central counties. Control of this pest is best achieved by foliar insecticides applied after 680 degree days (base 40°F) have been surpassed. The degree day accumulation above a base temperature of 40°F was 717 at Madison and 646 at Hancock as of May 29.

NURSERY & LANDSCAPE

FLETCHER SCALE: This insect was reported on *Taxus* in a Green Lake County hoop greenhouse on May 29. Under normal spring temperatures, egg hatch should not be expected until 600 degree days (base 50°F) are reached, just as little-leaf linden and northern catalpa are in bloom. In this case, development was accelerated as the plants were grown in slightly warmer conditions. Yew, arborvitae and juniper heavily infested by Fletcher scale exhibit black sooty mold on the stems and branch dieback. The optimal treatment period is once the new crawlers are active, before they have settled on the needles.



Fletcher scale

Greg Helmbrecht DATCP

TAXUS MEALYBUG: Yew plants with sparse, chlorotic foliage or branches covered in sooty mold may be infested with the taxus mealybug, as well as Fletcher scale. This insect problem usually is first observed on the stems and in the forks of branches. Pruning out dying branches and treating plants with horticultural oil sprays, insecticidal soaps, or contact insecticides while the mobile crawlers are active has been effective in control. The presence of crawlers can be confirmed by tapping an infested twig or branch over a white cloth or sheet of paper.



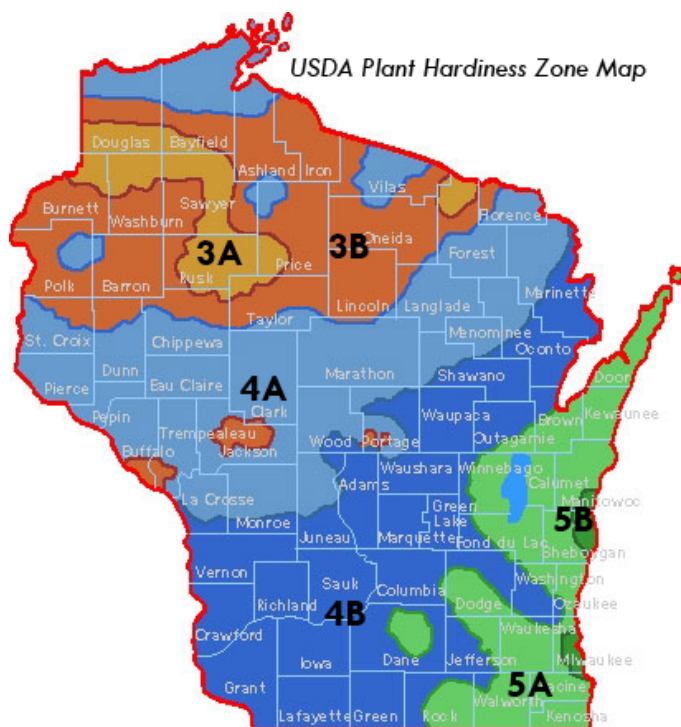
Taxus mealybug

Greg Helmbrecht DATCP

USDA COLD HARDINESS ZONES: Selecting plants with appropriate cold hardiness ratings and finding proper growing sites are important considerations at the time of purchase. Routine inspections of garden centers and greenhouses frequently detect nursery stock suited for warmer zones. In these scenarios, DATCP inspectors require Wisconsin retailers to provide signage or label

woody landscape plants with the appropriate hardiness rating. Customers should not presume all trees and shrubs offered for sale by local retailers are adequately cold hardy for their area.

Reputable Wisconsin nurseries offer plants labeled with a USDA Cold Hardiness Zone Rating, which is linked to the average annual coldest temperatures recorded in a specific region over a designated period of time. The ratings for Wisconsin range from Zone 5 (-15 to -20°F) in the far south and eastern regions to Zone 3 (-35 to -40°F) in the far north and west central regions.



FOREST

GYPSY MOTH SPRAY PROGRAM: Aerial treatments of Btk were applied to 13,011 acres in Jackson, Monroe and Richland counties on May 28. Richland County was scheduled to receive a second application on May 27 to kill any late hatching larvae, but spraying did not occur due to windy weather conditions. Spraying will progress northward into Ashland, Bayfield, Clark, Rusk and Taylor counties as the program follows the development of the gypsy moth, which has been significantly delayed this season. Egg masses have started to hatch in central counties and larvae are in the 1st and 2nd instars. Hatch has yet to occur in the northern counties. Last year all

Btk treatments had been applied by May 25, and the entire spray program was concluded in just two weeks due to ideal weather conditions.

GYPSY MOTH TRAPPING PROGRAM: Trap setting was 100% complete in Adams, Columbia and Walworth counties, and 78% complete in Rock County as of May 28. Approximately 32,400 traps in 48 counties are scheduled to be set by July 4. The number of adult male gypsy moths captured per trap during the adult flight period from July-August will be used to prioritize potential treatment sites for next year.

TRAPPING NETWORKS

BLACK LIGHT TRAPPING: The earliest European corn borer moths of the season were captured in black light traps near Mazomanie and Janesville this week, just one per trap. True armyworm, black cutworm, forage looper and variegated cutworm numbers remained low and were comparable to those registered last week. A very minor increase in celery looper numbers was observed, with 7 locations reporting captures of 1-4 moths. Warmer nighttime temperatures projected for the upcoming weekend are expected to stimulate increased moth activity.

CORN EARWORM TRAPPING: Cooperators monitoring the early flight of corn earworm moths should place traps near field corn or sweet corn fields in the next week. It is recommended that the Hercon "Zea Lure-Tape" brand lures be changed once every 2 weeks from June 1-July 15 and once per week from July 15-August 30. Traps should be checked every 1-3 days once counts begin to escalate. Corn earworm moths can be more readily counted if they are first sprayed with soapy water.

APPLE INSECT COUNTS MAY 23-29

COUNTY	DATE	SITE	STLM ¹	RBLR ²	CM ³	OBLR ⁴	AM RED ⁵	AM ⁶
Bayfield	5/19-5/27	Orienta	5	0	0	0		
Bayfield	5/23-5/29	Lobermeier	69	75	0	0		
Brown	5/22-5/28	Oneida	1620	68	11	0		
Crawford	5/23-5/29	Gays Mills	115	33	73	0		
Dane	5/22-5/29	Deerfield	15	24	13	0		
Dane	5/23-5/29	Stoughton	4	39	1	0		
Dane	5/23-5/28	West Madison	0	7	12	1		
Dodge	5/23-5/29	Brownsville	22	12	0	0		
Fond du Lac	5/23-5/29	Campbellsport 1	3	11	0	2		
Fond du Lac	5/23-5/29	Campbellsport 2	10	20	0	0		
Fond du Lac	5/23-5/29	Malone	240	22	2	0		
Fond du Lac	5/23-5/29	Rosendale	48	5	0	0		
Grant	5/23-5/29	Sinsinawa	0	4	6	0		
Green	5/23-5/29	Brodhead	0	11	0	1		
Iowa	5/23-5/29	Dodgeville	35	10	53	13		
Iowa	5/23-5/29	Mineral Point	0	8	0	0		
Kenosha	5/23-5/29	Burlington	13	4	1	0		
Marquette	5/22-5/26	Montello	36	21	1	0		
Marinette	5/23-5/29	Niagara	302	12	0	0		
Ozaukee	5/22-5/28	Mequon	75	7	5	0		
Pierce	5/23-5/29	Beldenville	560	19	0	2		
Pierce	5/22-5/29	Spring Valley	150	40	0	1		
Racine	5/23-5/29	Raymond	173	9	6	7		
Richland	5/22-5/28	Hill Point	0	23	0	0		
Sheboygan	5/23-5/29	Plymouth	155	95	6	2		
Waukesha	5/23-5/29	New Berlin	94	8	7	4		

¹Spotted tentiform leafminer; ²Redbanded leafroller; ³Codling moth; ⁴Obliquebanded leafroller; ⁵Apple maggot red ball; ⁶Apple maggot yellow sticky board; *Unbaited red ball; **Baited red ball;

BLACK LIGHT TRAP COUNTS MAY 23-29

COUNTY	DATE	SITE	ECB ¹	TA ²	BCW ³	SCW ⁴	DCW ⁵	CE ⁶	CEL ⁷	ALFL ⁸	FORL ⁹	VCW ¹⁰
Chippewa	5/21-5/28	Chipp. Falls	0	0	0	0	2	0	0	0	0	0
Columbia	5/23-5/29	Arlington	0	2	0	0	0	0	1	0	0	0
Dane	5/23-5/29	Mazomanie	1	4	5	0	0	0	3	0	0	0
Grant	5/23-5/29	Lancaster	0	1	0	0	0	0	0	0	0	0
Manitowoc	5/23-5/29	Manitowoc	0	2	0	0	0	0	0	0	1	0
Marathon	5/26-5/29	Wausau	0	0	0	0	0	0	1	0	0	0
Monroe	5/23-5/29	Sparta	0	2	0	0	0	0	3	0	0	0
Rock	5/23-5/29	Janesville	1	19	0	0	0	0	4	0	0	0
Walworth	5/23-5/29	East Troy	0	0	2	0	0	0	2	0	0	2
Wood	5/23-5/29	Marshfield	0	5	0	0	0	0	3	0	3	1

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