

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

Light showers and near- to above-normal temperatures maintained favorable crop prospects across the state. Rain was confined mostly to the northern and western counties, with totals of 0.01-0.79 inch recorded during the early part of the week. Soil moisture remained generally adequate for emerging corn and soybeans, although more rain will be needed to ensure uniform crop establishment and growth. High temperatures ranged from the lower 70s in the north and east to the mid-80s in the far west. Cooler conditions prevailed near Lakes Michigan and Superior, where weekly readings were at or slightly below normal. Emergence of soybeans advanced to 60% complete at the start of the week, 33 percentage points ahead of last year and 13 points ahead of the 5-year average. Overall, 74% of the soybean crop was reported in good to excellent condition. As expected, soybean aphids, the leading pest insect of soybeans in Wisconsin, have already begun colonizing emerging fields.

LOOKING AHEAD

STALK BORER: Minor injury to corn has been observed in southern and central Wisconsin corn fields. Damage thus far is limited to 1-9% of plants in the peripheral rows, but is expected to become increasingly pronounced as more larvae migrate from weed hosts this month. Spot treat-

ment is justified if 10% of plants are damaged and should be made before the larvae bore into stalks.

EUROPEAN CORN BORER: The treatment window for first generation larvae has opened near Beloit, La Crosse, Madison, Sullivan and other advanced southern and west-central locations. Close inspection of susceptible corn fields and Bt refuge areas should begin at this time and continue during the next 2-3 weeks.

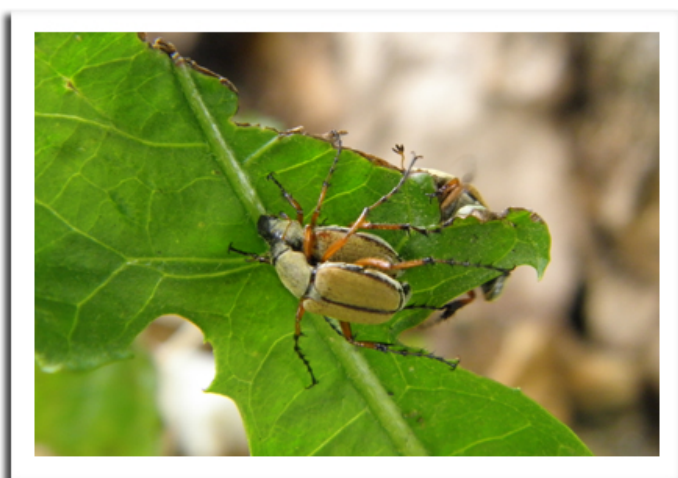
SOYBEAN APHID: The first aphids of the season were detected in Columbia and La Crosse counties on June 4. Densities were very low and ranged from 1-3 per infested plant on no more than 2 per 100 plants. In addition, Dr. David Voegtlin, of the Illinois Natural History Survey reports that a single aphid was captured in the Antigo suction trap during the week May 25, one of the earliest spring collection dates on record for this pest.

GRANULATE CUTWORM: This moth, which bears a striking resemblance to the western bean cutworm adult, is appearing in the black light traps at Arlington, Coon Valley and Mazomanie. The granulate cutworm is noticeably smaller, about $\frac{3}{4}$ of the size of the western bean cutworm. The annual flight of western bean cutworm adults is unlikely to begin for another 1-2 weeks.

VARIEGATED CUTWORM: A report from a McCain Foods Field Representative verifies that larvae are infesting

potatoes in Adams County. Damage has not exceeded economic levels and controls for Colorado potato beetles are expected to resolve the problem, but this development emphasizes the importance of continued monitoring of alfalfa, beans, potatoes, tomatoes and other hosts through this month, particularly in the northern areas of the state where populations are highest.

ROSE CHAFER: This scarab beetle has become more common in the in the past two weeks and light damage is now evident in soybean fields in the central area of the state. Defoliation levels, however, have not exceeded 40% in any early vegetative field checked as of June 5, so treatment is not necessary.



Rose chafer beetles

Krista Hamilton DATCP

FORAGES

ALFALFA WEEVIL: Larval populations in the southern half of the state have been reduced to less than 1.3 per sweep by pupation and harvesting of alfalfa. The threat from this early-season pest is expected to subside by mid-June.

PEA APHID: This insect is still fairly numerous in alfalfa. Counts in the second crop presently range from 2-17 per sweep in the east-central, west-central and southern counties. Winged forms comprise a larger percentage of the population than previously.

POTATO LEAFHOPPER: Counts in alfalfa remain moderate in most fields and high at a few sites. Surveys in Columbia, Dane, Grant, Green, Iowa, La Crosse and Lafayette counties found 0.3-2.1 per sweep, with an average of 0.9 per sweep. Individual fields in Grant

DEGREE DAYS JANUARY 1 - JUNE 6

LOCATION	50°F	2011	NORM	48°F	40°F
Dubuque, IA	920	610	650	940	1635
Lone Rock	917	581	—	914	1591
Beloit	950	620	660	934	1660
Madison	884	533	625	898	1560
Sullivan	872	540	599	869	1541
Juneau	822	541	—	816	1474
Waukesha	734	432	—	729	1367
Hartford	721	421	—	725	1347
Racine	675	369	—	697	1306
Milwaukee	661	365	508	678	1282
Appleton	721	407	557	730	1342
Green Bay	643	345	515	676	1257
Big Flats	799	455	—	777	1415
Hancock	789	448	614	768	1405
Port Edwards	754	434	598	735	1364
La Crosse	876	544	696	872	1551
Eau Claire	763	468	614	761	1402
Cumberland	636	413	545	641	1239
Bayfield	464	267	—	450	949
Wausau	652	388	534	652	1226
Medford	650	397	477	661	1239
Crivitz	593	331	—	605	1171
Crandon	565	343	428	551	1104

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

County had populations sufficient to justify treatment (> 2.0 per sweep). Nymphs were collected in about 10% of alfalfa fields checked as of June 6 and populations appear to be increasing.

MEADOW SPITTLEBUG: The adult stage of this insect has become commonplace in Wisconsin alfalfa, signaling that the population has matured and spittle masses should not reappear until next spring. The highest number collected from second crop alfalfa in the past week was 3 per sweep.

CORN

BLACK CUTWORM: Economic infestations have been reported from Manitowoc and Sheboygan counties. A consultant in the area notes that 3-10% of plants were cut in several late-planted corn fields (less than 4 inches high) and treatments are being applied. The damage is “spotty” and most of the cutting is occurring above the

growing point on the smaller corn. Some of the treated fields are Bt hybrids, according to the report. As stated in previous bulletin issues, late-planted corn remains at risk of cutworm injury until the V5 stage. A rescue treatment is recommended if 3% of plants are damaged.

STALK BORER: Surveyor's reports indicate that 1-9% of edge row plants in several Grant, Green and Lafayette County corn fields are infested with small, ¼ -¾ inch larvae. This pattern of invasion is consistent with the stalk borer, a mid-season pest that migrates from perennial grasses and broadleaf weed hosts in early June and infests the first 4-6 rows of corn. As a reminder, Bt corn hybrids suppress but will not completely control stalk borers, so field scouting is strongly recommended through the V7 stage.



Stalk borer larva

Clarissa Hammond DATCP

TRUE ARMYWORM: Light injury was observed in 20 of 67 (30%) of corn fields sampled from May 31-June 6. Larvae ranged in size from ¼ -1¾ inches. This should serve as a warning for crop advisors and growers to continue inspecting corn and small grains for infestations. Treatment of corn is suggested when 25% of plants are infested with two or more small larvae (¾ inch or shorter) or 75% of the plants are infested with larvae of any size.

EUROPEAN CORN BORER: The spring flight has peaked and is now declining in the southern half of the state. Larvae resulting from the flight are in the first and second instars and their characteristic shot hole whorl damage and windowpane feeding have been noted in a small percentage of corn fields. Surveys conducted in southern and central counties found very minor infestations of 1%-10% in 8 of 67 fields examined in the past week. The optimal treatment window for first generation corn borers

has opened in the southernmost areas of the state with the accumulation of 800 degree days (base 50°F).



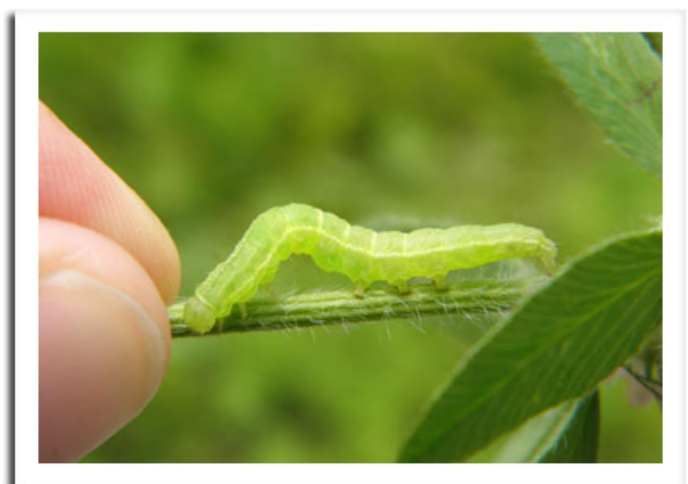
European corn borer leaf feeding

Krista Hamilton DATCP

SOYBEANS

SOYBEAN APHID: Extremely low numbers of aphids were detected in 3 of 21 soybean fields (VC-V2 stages) sampled in the past week. In Columbia and La Crosse counties, 1-2% of the plants had very low densities of 1-3 aphids per infested plant. Eighteen other fields sampled in Columbia, Green, Jackson, Monroe and Trempealeau counties had no detectable population.

GREEN CLOVERWORM: Larvae of various maturities were collected at the rate of 1-7 per 10 sweeps in Columbia and La Crosse counties this week. The presence of relatively high numbers in alfalfa may be an indicator of potential problems for soybeans later this season.



Green cloverworm larva

Krista Hamilton DATCP

BEAN LEAF BEETLE: Defoliation is evident in the southern and west-central counties. Less than 12% of soybean plants were affected in Columbia, Jackson, La Crosse, Monroe and Trempealeau County fields and surveys yielded no more than 1-2 adults per 50 feet of row. Two fields in Green County showed 25% plants with minor leaf injury. Treatment is justifiable at 40% defoliation for soybeans in the vegetative stages.



Bean leaf beetle defoliation

Erin Hodgson ISU

ROSE CHAFER: Light defoliation caused by this insect was observed this week in soybeans in Juneau, Monroe and La Crosse counties. Currently the damage involves fewer than 10% of plants. Beetles have also been noted on a variety of ornamental and garden plants in Adams, La Crosse and Sauk counties since late May. Activity and leaf skeletonization should increase over the next 2-3 weeks, especially in the sandier areas of the state.

FRUITS

SPOTTED TENTIFORM LEAFMINER: The second of three flights this season has begun in southern and central Wisconsin, where trap counts ranged from 1-875 moths per trap from May 31-June 6. Peak flight activity can be expected around 1,150 degree days (base 50°F), or approximately June 17 near Beloit, June 22 near Madison, and June 28 at Eau Claire. The economic threshold increases from 0.1 to 1.0 mine per leaf for the second generation of sapfeeder larvae.

CODLING MOTH: The spring flight accelerated in the northern counties and slowed in the south. At Niagara in Marinette County, the count increased from 42 moths per trap last week to 51 per trap this week. Economic

numbers were also registered at the Chippewa Falls, Oneida and Spring Valley monitoring locations. Counts in southern orchards have generally declined to less than 8 per trap, with an average of 3 per trap.

REDBANDED LEAFROLLER: Moth counts remained very low again this week, ranging from 0-16 per trap, with an average of 2.4 per trap. The second flight is likely to have begun at southern locations, although recent trap data indicate otherwise. The extremely low numbers of moths collected since mid-May suggests that populations are still primarily in the larval stages or that controls applied last month were very effective.

POTATO LEAFHOPPER: Reports indicate that economic populations have developed in a few southern Wisconsin apple orchards. A count of just 1-2 adult or nymphs per leaf can cause foliage to curl and shrivel. The nymphs are most damaging to non-bearing trees, which should be scouted for evidence of this pest as long as warm, dry weather continues to favor leafhopper reproduction. Treatment is warranted at levels of one or more nymph per leaf when symptoms are obvious.



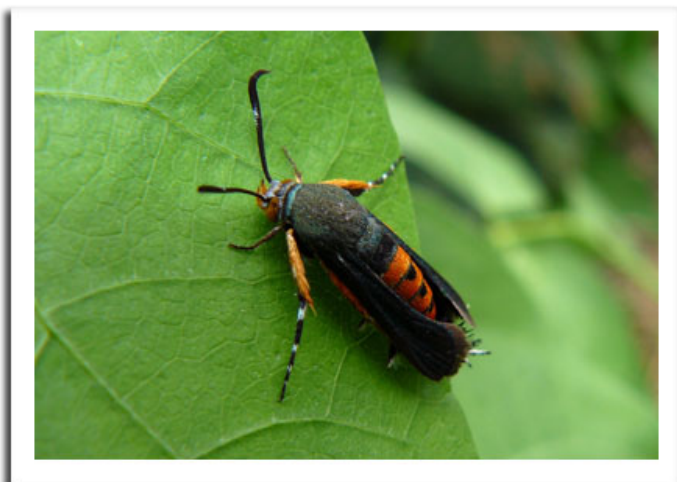
New shoots stunted by potato leafhopper

John M. Clements UMass

VEGETABLES

SQUASH VINE BORER: The adult emergence period is expected to begin shortly in the southern and central areas. Pumpkins, squash and other vine crops should be examined for eggs and evidence of feeding from 900-1,000 degree days (base 50°F). An organic control method which may be suitable for home gardens and small market gardens is syringe injection of the bacterial insecticide Bt (*Bacillus thuringiensis*) into each vine

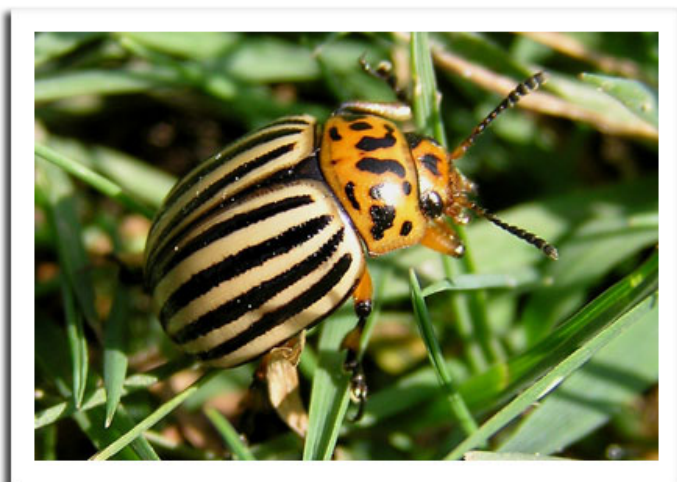
by hand. Conventional insecticidal controls are only effective if applied before the larvae bore into vines.



Squash vine borer moth

D. Charvat '10 flickr.com

COLORADO POTATO BEETLE: Overwintered adults continued to colonize potato fields in the Central Sands and northern production areas in the past week, signaling that oviposition has begun. Bacterial insecticide treatments of *Bacillus thuringiensis* var. *tenebrionis* (Btt) are most effective immediately after egg hatch and while the larvae are very small. The first of two foliar applications of Btt or an insect growth regulator should be made at egg hatch and again 7-14 days later. Most products must be reapplied 2-3 times to effectively control the larvae.



Colorado potato beetle

Phillippe_Boissel flickr.com

LATE BLIGHT: Reports of late blight in Wisconsin have not been received to date, but commercial growers and home gardeners should be prepared take appropriate measures to protect their tomatoes and potatoes if conditions turn favorable for disease development. The

accumulated disease severity value (DSV) for early-planted fields in the Hancock areas was 11 as of June 4, according to the latest UW-Extension Vegetable Crop Update. Fungicide applications for late blight control are advised once a DSV of 18 has been reached.

VARIEGATED CUTWORM: Commercial potato growers have reported minor problems thus far, while home gardens in Dane County noted only light damage as of June 5. Larvae of this cutworm are expected to appear in greater numbers before month's end and regular monitoring of beans, potatoes and tomatoes is encouraged. If cutworm activity is suspected, plants should be visually inspected for larvae during the early morning hours. Treatment is recommended if 2-3% of developing fruits show feeding injury. Larvae in Dane County were approximately 1¼ inch long on June 6.



Variegated cutworm larvae on tomatoes

Shirely Copeland Oklahoma

WEEDS

POISON HEMLOCK: An emerging population of this comparatively new invasive weed has been detected near New Glarus in Green County. Poison hemlock is categorized as "prohibited" under the DNR Chapter NR-40 Invasive Species Rule and may not be transported, transferred or introduced without a permit. Although this species occurs only in a few isolated sites in the state, its status as a prohibited plant means weed scientists believe it is likely to survive and spread, potentially causing significant environmental or economic harm. At current low levels, eradication remains a reasonable control strategy. The plants observed on June 5 were flowering, suggesting that controls should be implemented soon to preclude seed production.

THISTLE: Several thistle species are near or at the flowering stage in southern Wisconsin. Thistles, as many farmers know, are highly aggressive invaders of pastures and perennial cropping systems. Mechanical removal or herbicide spot applications are both acceptable forms of control, but both methods must be repeated several years in a row to achieve long-term population reduction. Mowing should target plants in the late flowering stage.

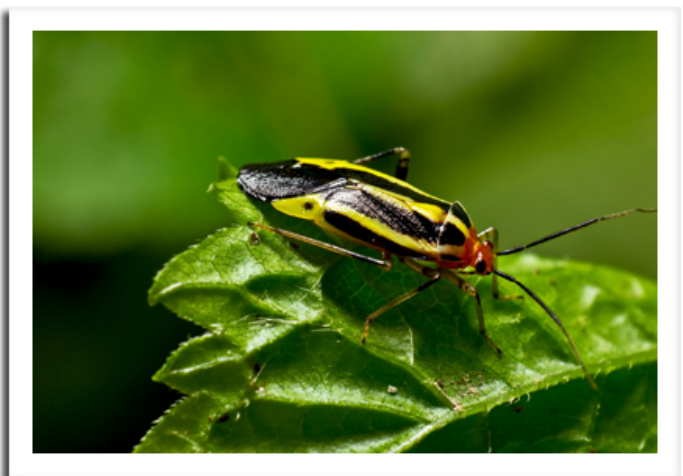


Plumeless thistle

lurig.altervista.org

NURSERY & FOREST

FOUR-LINED PLANT BUG: Adults of this insect were observed on pincushion flower in a Dane County garden center. Their damage appears on young foliage as small round, depressed spots which may be brown or black. The spots may become clear and after several weeks the affected tissue drops out leaving small holes. Both the adult and nymph stages can injure plants.



Four-lined plant bug

Noah Bades flickr.com

NON-VIABLE NURSERY STOCK: Nursery plants that have not leafed out by now are considered non-viable and cannot be sold. Dry bulbs and trees and shrubs with plastic-wrapped roots are especially prone to moisture deficiency problems after distribution to retail stores and should be sold within three weeks of arrival. Non-viable stock may be set aside and observed for later growth, but otherwise must be destroyed or returned to the supplier.

DAYLILY RUST: 'Stella d'Oro' daylilies in Brown and Waukesha County nurseries are developing this rust disease. The most recognizable symptom is the long, brownish-yellow streaks which develop along the leaves. As the disease progresses, small, raised yellowish-orange pustules appear on the leaf undersides. These pustules eventually release orange spores that are wind-dispersed to other daylilies. The disease cycle involves a secondary host, *Patrina* spp. Daylily rust is not known to overwinter in Wisconsin. The spores arrive on southerly winds or on infected daylilies from out-of-state.



Daylily rust

www.agirlandhergarden.com

APPLE INSECT & BLACK LIGHT TRAP COUNTS MAY 31 - JUNE 6

COUNTY	SITE	STLM ¹	RBLR ²	CM ³	OBLR ⁴	OBLR ⁵	AM RED ⁶	YELLOW ⁷	GDD 50°F
Bayfield	Keystone	0	12	0	0		—	—	
Bayfield	Oriente	4	0	0	0		—	—	
Brown	Oneida	*250	*14	*18	*0		—	—	
Chippewa	Chippewa Falls	0	0	9	9		—	—	
Columbia	Rio	95	0	0	7		0	0	
Crawford	Gays Mills	357	1	4	32		—	—	
Dane	Deerfield	875	0	3	—		—	—	
Dane	McFarland	190	0	3	—		—	—	
Dane	Mt. Horeb	53	6	3	57		—	—	
Dane	Stoughton	130	2	4	16		0	0	
Dane	West Madison	52	3	8	11		—	—	
Dodge	Brownsville	15	2	3	0		0	0	
Fond du Lac	Campbellsport	0	0	0	9		—	—	
Fond du Lac	Malone	0	0	3	25		0	0	
Fond du Lac	Rosendale	7	12	0	2		1	0	
Green	Brodhead	29	16	3	12		—	—	
Iowa	Mineral Point	450	0	6	35		—	—	
Jackson	Hixton	90	2	2	6		0	0	
Kenosha	Burlington	115	0	1	1		—	—	
Marathon	Edgar	86	11	7	3		—	—	
Marinette	Niagara	4	0	51	0		—	—	
Marquette	Montello	108	1	4	26		—	—	
Ozaukee	Mequon	0	0	7	11		—	—	
Pierce	Beldenville	0	0	8	6		0	0	
Pierce	Spring Valley	20	2	15	18		—	—	
Polk	Turtle Lake	0	0	8	24		—	—	
Racine	Raymond	144	0	3	35		—	—	
Racine	Rochester	285	0	7	2		—	—	
Richland	Hillpoint	420	0	1	0		—	—	
Sheboygan	Plymouth	20	0	13	5		—	—	
Walworth	East Troy	4	1	0	2		—	—	
Walworth	Elkhorn	1	0	0	2		—	—	
Waukesha	New Berlin	149	1	4	0		—	—	

¹Spotted tentiform leafminer; ²Redbanded leafroller; ³Codling moth; ⁴Obliquebanded leafroller EASTERN; ⁵Obliquebanded leafroller WESTERN; ⁶Apple maggot red ball; *Counts represent a two-week period; ⁷Apple 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	0	1	0	0	0	0	0	0	2	0
Crawford	Prairie du Chien	3	0	0	0	0	0	0	0	0	0
Dane	Mazomanie	0	0	0	0	0	0	0	0	2	2
Fond du Lac	Ripon	2	31	0	0	0	0	0	0	9	0
Manitowoc	Manitowoc	0	11	1	0	0	0	0	0	3	0
Marathon	Wausau	0	15	0	23	0	0	0	0	2	0
Monroe	Sparta	39	0	0	0	0	0	0	0	9	0
Portage	Plover	10	0	0	3	0	0	0	0	2	0
Rock	Janesville	0	1	0	0	0	0	0	0	9	0
Wood	Marshfield	11	8	0	11	0	0	2	0	6	0

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