

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

Scattered showers and isolated thunderstorms interrupted fieldwork across the state during the last reporting period. After a very stormy Sunday evening, cloudy skies and cooler conditions prevailed throughout much of the week. On the favorable days, planting of summer row crops advanced as rapidly as could be expected. Farmers have made considerable progress in the last two weeks, sowing most of the intended corn acreage and about a quarter of the state's soybean crop. Alfalfa has shown excellent growth and is currently 20-26 inches tall in the southern counties. Harvest of the first crop began last week and is expected to resume with drier weather. Despite more moderate temperatures since mid-May, development of crops and insects continues to be delayed. The growing season remains an average of 13 days behind normal and 23 days behind last year.

LOOKING AHEAD

BLACK CUTWORM: Larval progeny of the earliest migrants are now in the destructive late-instar cutting stages. As stated in previous bulletin issues, environmental conditions this spring are highly conducive to outbreaks. The combination of delayed planting, late weed control and the largest migration in 10 years means corn and other vegetables are at an increased risk of attack next month.

EUROPEAN CORN BORER: The first spring moths could appear in black light traps this weekend. The degree day accumulation at Beloit, Lone Rock and Platteville has surpassed the 374 (base 50°F) standard at which corn borer flight begins. Black light traps contents should be closely scrutinized during the next two weeks for moths.

POTATO LEAFHOPPER: Surveys indicate the first distinct arrival episode of 2011 has occurred. Migrants were collected from 14 of 46 alfalfa fields sampled this week and moderate numbers were noted in black light traps. This insect usually appears in Wisconsin around the time first crop alfalfa is harvested.

TRUE ARMYWORM: Larvae were swept in low numbers from alfalfa in La Crosse, Monroe and Vernon counties. The ¼ inch worms are the offspring of moths that arrived earlier this month. Black light trap counts have increased slightly and growers should anticipate more armyworms appearing in fields in the next 2-4 weeks.

PLUM CURCULIO: A report from McFarland in Dane County indicates the spring migration of beetles into orchards is underway. Cooler temperatures this week delayed beetle activity in most areas, but the first adults and oviposition scars can be expected after petal fall. Apple growers are advised to examine early blooming cultivars for signs of injury. Sprays directed against the adults to prevent oviposition are the recommended form of control.

FORAGES

ALFALFA WEEVIL: Larval populations are gradually increasing in first growth alfalfa. Surveys in the south-central and central counties yielded an average of 3 per 25 sweeps in 46 fields checked. Leaf tip feeding injury is generally less than 10%, although two fields in Dane County showed 30-40%. Damage is expected to become more pronounced next week, especially if rainy weather continues to delay harvest of the first crop. Alfalfa should be harvested in the next 1-2 weeks to prevent damage by the larger and more destructive larval instars. Control is justified for fields that show 40% tip feeding 7-10 days in advance of harvest.



Light defoliation by alfalfa weevil larvae Krista Hamilton DATCP

PEA APHID: Alfalfa surveyed in the southern areas had low populations of 1-15 per 25 sweeps, with an average of 4 per 25 sweeps. Recent cool weather has been favorable for this aphid and many small nymphs are evident in some fields. The continuation of these conditions could result in a marked increase in populations by early June.

TARNISHED PLANT BUG: Adults are common but not abundant in alfalfa at this time. Counts average 3 per 25 sweeps in the southern half of the state. The first small nymphs should begin appearing in sweep net collections in the next two weeks.

POTATO LEAFHOPPER: Surveys this week found migrants in 5 of 9 fields checked in Columbia and Dodge counties, and as far north as Taylor in Jackson County. Recent observations indicate the first distinct arrival episode has occurred, and the possibility of a sharp population increase next month. Potato leafhopper is

DEGREE DAYS JANUARY 1 - MAY 25

LOCATION	50°F	2010	NORM	48°F	40°F
Dubuque, IA	393	565	—	383	808
Lone Rock	367	565	—	363	757
Beloit	406	611	—	387	830
Madison	328	531	463	338	703
Sullivan	342	567	452	337	719
Juneau	298	522	—	304	651
Waukesha	256	478	—	261	594
Hartford	244	459	—	248	569
Racine	210	420	—	220	535
Milwaukee	203	409	345	211	516
Appleton	227	465	378	233	532
Green Bay	183	386	363	193	476
Big Flats	270	519	—	269	590
Hancock	260	524	467	261	577
Port Edwards	250	502	430	253	555
La Crosse	333	570	500	335	709
Eau Claire	281	516	437	285	608
Cumberland	252	472	402	246	552
Bayfield	155	330	272	140	413
Wausau	218	460	377	219	494
Medford	227	462	329	228	508
Crivitz	178	399	—	187	452
Crandon	194	418	328	177	457

Method: ModifiedB50; Sine48; ModifiedB40 as of Jan 1, 2011.
 NORMALS based on 30-year average daily temps, 1971-2001.

a migratory pest that overwinters in the southern U.S., from eastern Texas to northwestern Florida.

CLOVER LEAF WEEVIL: Most alfalfa fields with some amount of clover also have low numbers of this insect. Similar to the alfalfa weevil, the larvae of this species are pale green with a white longitudinal stripe. It is important to differentiate between the two since the clover leaf weevil requires no control.

Larvae of the clover leaf weevil are larger, have a light brown head capsule, and develop a pink border along the longitudinal white stripe as they mature. The adult is double the size of the adult alfalfa weevil.

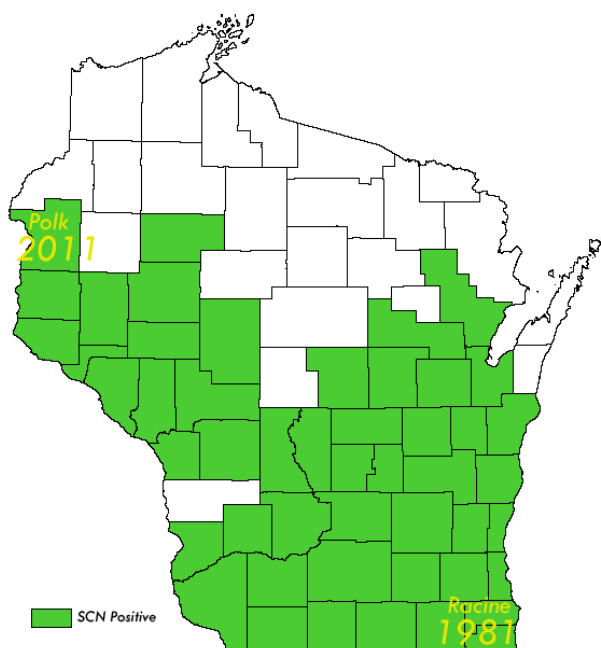
SOYBEANS

BEAN LEAF BEETLE: Overwintered beetles were found in only 2 of 46 alfalfa fields sampled this week. The first appearance of this insect was noted on May 11 in Green

County. The very low number of beetles collected thus far suggests a low risk of soybean defoliation next month. Routine scouting should begin at soybean emergence.

SOYBEAN CYST NEMATODE: This soybean pest has been confirmed in Jackson and Polk counties. The accompanying map shows Wisconsin counties with known infestations, from the first detection in Racine County in 1981 to the most recent. The total number of counties with at least one SCN-infested field is now 49.

Soybean Cyst Nematode 2011



Wisconsin Department of Agriculture, Trade and Consumer Protection

CORN

EUROPEAN CORN BORER: Spring moth emergence is expected to begin in the next 1-2 weeks, depending upon nightly temperatures. A single specimen was collected in the black light trap at Prairie du Chien on May 24. Degree day accumulations at Beloit, Lone Rock and Platteville are appropriate for moth activity. Larval surveys conducted last fall indicate a low potential for damage by the first generation of corn borers this season.

BLACK CUTWORM: Larvae from the April-May migration are now in the damaging late-instar stages and could be encountered in emerging corn fields. Although previous weed infestation is perhaps the most important factor influencing cutworm potential, farmers and crop advisors

should be aware that problems can develop in conventionally tilled fields as well. During periods of wet weather (such as most of Wisconsin is experiencing), the larvae usually cut plants at the soil surface. Timely detection of cutworm infestations is critical for insecticide treatments to be effective or economical.

Economic thresholds have been established for the following crops:

CORN	5% of plants damaged
SNAP BEANS	2 larvae per row foot
POTATOES	4 larvae per row foot
LEAFY GREENS	3% of stand affected

FRUITS

OBLIQUEBANDED LEAFROLLER: The first moths are appearing in traps across the state. This insect emerges later than other fruit moths monitored by the DATCP network, around 490 degree days (base 43°F). In contrast to the spotted tentiform leafminer and redbanded leafroller, which overwinter as pupae ready to take flight in April, the OBLR overwinters in the early larval stages and must complete development and pupate before appearing in late May or early June. Pheromone trap counts for the week of May 19-25 ranged from 0-5 per trap.



Obliquebanded leafroller moth

Ilona L. bugguide.net

SPOTTED TENTIFORM LEAFMINER: Moth emergence peaked in the last 2-3 weeks and is now declining in most areas. Populations in the southern two-thirds of the state consist mostly of first generation sapfeeder larvae. The recommended scouting procedure is to sample 10 terminals and fruit spurs per tree on 2-3 trees per orchard

block. Sapfeeder mines should be noticeable on the undersides of leaves. The economic threshold is 1 mine per 10 leaves.

ROUGH STINKBUG: This insect was collected from a Fond du Lac County apple orchard last week. The specimen was thought to be the invasive brown marmorated stink bug due to its close resemblance. The rough stink bug can be differentiated by the lack of white banded antennal segments.



Rough stink bug

Stephen Cresswell www.americaninsects.net

CODLING MOTH: The apple orchards in Dane, Fond du Lac, Grant, Kenosha, Racine, Rock and Walworth counties reported captures of 1-10 moths during the period of May 19-25, indicating the start of the first flight of moths. Since temperatures have not been conducive for rapid degree day accumulations or moth activity, adult emergence could occur fairly slowly over the next few weeks.

TARNISHED PLANT BUG: Nymph production can be anticipated by early June. Strawberry plants beginning to bloom should be checked weekly for both adults and nymphs. Sprays applied against the small, first and second instar stages are very effective and can eliminate the need for a second treatment. The economic threshold for this insect in strawberries is 4 per 20 sweeps.

VEGETABLES

STRIPED CUCUMBER BEETLE: Seedling and transplanted cucurbits such as cucumbers and melons will be at risk of direct feeding injury and bacterial wilt transmission as beetles emerge in the next several weeks. This insect is such an effective carrier of the bacterial wilt pathogen

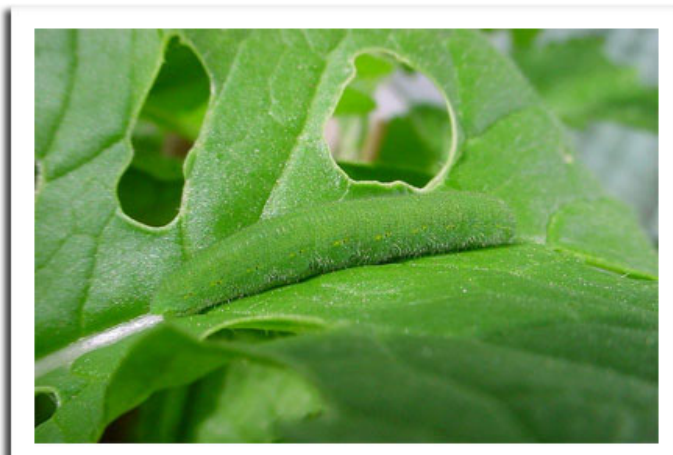
that serious crop damage can occur if only 10% of the population is infected. Scouting field edges and interiors 2-3 times per week is advised next month. Beetle counts should not exceed 4-5 per 50 plants.



Striped cucumber beetle

Mark Jankura flickr.com

IMPORTED CABBAGEWORM: Larvae are appearing in the southern half of the state. Home gardens and larger cabbage plantings should be checked weekly for the yellow eggs (laid singly on plants) and 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 the early head to harvest stages.



Imported cabbageworm larva

Christian Bauer upload.wikimedia.org

COLORADO POTATO BEETLE: Emergence of overwintered beetles is underway in central Wisconsin. The early colonizing population is rarely damaging to young potatoes protected with a systemic neonicotinoid, but beetle abundance should be monitored to ensure effectiveness

of insecticide products. Egg deposition is expected to begin by early June and continue for 2-4 weeks.



Colorado potato beetle

zoology.fns.uniba.sk

ONION MAGGOT: Peak emergence of onion maggot flies theoretically has occurred in the southern counties. Control of this pest is best achieved by foliar insecticides applied after 680 degree days (base 40°F) have been surpassed. The accumulation above a base temperature of 40F was 757 at Spring Green and 703 at Madison as of May 25.

WEEDS

VELVETLEAF: Planting operations appear to have triggered velvetleaf emergence in southern Wisconsin corn fields. Cotyledons were noted this week in Walworth and Rock counties. Monitoring fields for potential problem areas is recommended until corn plants have surpassed the V8 growth stage, especially fields with history of velvetleaf infestation. Research shows that just three plants per foot of row can cause yield losses of 20% or more.

GARLIC MUSTARD: Plants are flowering in southern counties. Any mechanical control measures directed against second-year growth should also include bagging and removal from the infestation site. Plants must be burned or disposed of in a landfill to prevent further spread. Avoid using composting as a disposal method.

CUT-LEAVED TEASEL: This invasive weed has the potential to reduce yields in pastures and perennial cropping systems. The tall, brown stalks from last year's teasel plants are an indicator of where overwintered rosettes will soon bolt and reproduce. These remains mark

problem areas and are observable from a distance. The rosettes can be controlled by pulling the entire above- and below-ground portion of the plant or by severing the taproot 1-2" below the soil surface. Cut-leaved teasel has become far more prevalent along Wisconsin roadsides in the last 3-5 years.



Cut-leaved teasel

Clarissa Hammond DATCP

NURSERY & FOREST

BLACK SPOT: This common fungal disease was noted on roses in Dane, Jefferson and Washington counties. The initial symptoms appear as small, round black spots on the foliage which later enlarge and cause leaves to turn yellow and drop prematurely. Humid, wet conditions favor spread of black rot, so increasing air circulation and removing infected foliage is recommended.



Black spot on rose

Tim Boyle DATCP

PLANT HARDINESS RATING: Standard inspections of nursery retailers often reveal improperly labeled stock

suited for warmer hardiness zones. For example, the flowering dogwood cultivars 'Galzam' and 'Galani', as well as viburnum 'Judii' and 'Tomentosa' were being offered for sale at a Polk County nursery. These plants are hardy in Zones 5-8, but are not adapted to Zone 3 conditions in the far northern areas of the state. It is illegal to sell or distribute plants that are insufficiently hardy and cannot survive or grow in Wisconsin. Retailers are required to provide signs or labels for woody landscape plants indicating the hardiness rating. Customers should not presume all trees and shrubs offered for sale by local retailers are adequately cold hardy for their area.

TOBACCO RATTLE VIRUS: Nursery inspectors continue to submit ornamentals from all areas of the state with symptoms of this virus. Of the 10 perennials processed by the Plant Industry Lab on May 20, seven samples, including barrenwort, bleeding heart and peony, tested positive. The symptoms were obvious on some plants and subtle on others. Tobacco rattle virus has wide host range and is spread during propagation of infected plant parts. Prevention is the only way to keep this virus and others out of production areas and home gardens.



Tobacco rattle virus on bleeding heart

Tim Boyle DATCP

DAYLILY RUST: The daylily variety 'Prairie Blue Eyes' in a Washington County nursery was infected with this rust disease. The most recognizable symptom is the long, brownish-yellow streaks that develop on 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 infected daylilies from out of state or on southerly winds.

NORTHERN ROOT-KNOT NEMATODE: An anemone sample submitted to the DATCP Plant Pathologist was diagnosed with both tobacco rattle virus and northern root-knot nematode. Nematode symptoms can manifest as stunting, yellowing and wilting, but all are inconclusive until the roots are examined for knots and the nematode (*Meloidogyne hapla*) is identified. Other disorders diagnosed in the past two weeks were rose mosaic virus complex and hosta virus X.



Anemone infested with northern root knot nematode Anette Phibbs DATCP

GYPSY MOTH: Btk treatments were conducted in Grant, Iowa and Lafayette counties on May 23 and in Dane, Green, Iowa, Richland, Rock and Vernon counties on May 24. Treatments for May 26-27, and possibly through the Memorial Day weekend, are planned for the following counties: Clark, Eau Claire, Grant, Iowa, Jackson, Sauk, Lafayette, La Crosse, Trempealeau, Richland and Vernon. Some sites will be receiving a second application of Btk for late hatching gypsy moth egg masses.



Spray plane applying Btk over Sauk County

Chris Whitney DATCP

APPLE INSECT & BLACK LIGHT TRAP COUNTS MAY 19 - 25

COUNTY	SITE	STLM ¹	RBLR ²	CM ³	OBLR ⁴	OBLR ⁵	AM RED ⁶	YELLOW ⁷	GDD 50°F
Bayfield	Keystone	8	22	0	1				
Bayfield	Orienta	1	0	0	0				
Brown	Oneida	800	36	3	0				
Chippewa	Chippewa Falls	80	80	0	0				
Columbia	Rio	—	—	—	—				
Dane	Deerfield	98	96	10	0				
Dane	Mt. Horeb	10	68	0	0				
Dane	Stoughton	25	84	1	0				261
Dane	McFarland	0	2	0	5				
Dodge	Brownsville	0	4	0	0				
Fond du Lac	Campbellsport	62	78	0	0				
Fond du Lac	Malone	405	55	4	0				
Fond du Lac	Rosendale	176	58	0	0				
Grant	Sinsinawa	0	0	9	0				
Green	Brodhead	3	30	1	2	12			
Iowa	Dodgeville	—	—	—	—				
Iowa	Mineral Point	17	87	2	0				234
Jackson	Hixton	190	28	0	0	3			
Kenosha	Burlington	76	62	1	0				
Marinette	Niagara	1472	15	0	0				150
Marquette	Montello	48	2	0	0				
Ozaukee	Mequon	55	49	0	0				189
Pierce	Beldenville	5	30	0	0	3			
Pierce	Spring Valley	64	108	0	0				
Polk	Turtle Lake	0	8	0	0				
Racine	Raymond	69	62	0	0				
Racine	Rochester	70	140	1	0				238
Richland	Hillpoint	35	115	0	0				
Sheboygan	Plymouth	81	103	0	0				190
Walworth	East Troy	5	1	0	0				
Walworth	Elkhorn	6	6	0	0				
Waukesha	New Berlin	22	24	4	2				

¹Spotted tentiform leafminer; ²Redbanded leafroller; ³Codling moth; ⁴Obliquebanded leafroller EASTERN; ⁵Obliquebanded leafroller WESTERN; ⁶Apple maggot red ball; ^{*}Unbaited AM trap; ^{**}Baited AM trap; 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	7	1	0	0	0	0	0	0	0
Dane	Mazomanie	0	2	2	0	0	0	3	0	1	0
Grant	Prairie du Chien	1	7	0	0	0	0	2	0	7	0
Manitowoc	Manitowoc	0	32	0	0	0	0	0	0	0	0
Marathon	Wausau	0	9	0	0	0	0	0	0	1	0
Monroe	Sparta	0	0	1	0	0	0	0	0	2	2
Rock	Janesville	0	11	0	0	0	0	2	0	1	0
Walworth	East Troy	0	0	0	0	0	0	0	0	1	0
Wood	Marshfield	0	5	2	0	0	0	2	0	1	1
Vernon	Coon Valley	—	—	—	—	—	—	—	—	—	—

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