

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

Cloudy skies and scattered rain showers persisted throughout Wisconsin during the last reporting period. Alfalfa, oats and peas appear to be developing well under the present conditions, although damp weather has delayed alfalfa harvest and permitted feeding injury by alfalfa weevil larvae to become much more pronounced. The growing season is now 3-9 days ahead of last year but remains 3-10 days behind normal. Corn and soybean planting continue to progress rapidly. Approximately 82% of intended corn acreage and 54% of soybean acreage has been planted, which is well above the percentages planted at this time last season and only slightly below the 5-year average. The tallest corn is 6 inches in the southern areas (V3-V4 growth stages). More seasonable temperatures over the weekend should stimulate activity by pest insects.

LOOKING AHEAD

ALFALFA WEEVIL: Larval numbers and damage are expected to increase greatly in the next week. The economic threshold of 40% feeding injury may be exceeded in some areas as larvae mature to the late instars and consume substantially more foliage. All alfalfa fields should be checked frequently until harvest. Early cutting is the preferred control method.

EUROPEAN CORN BORER: The first moths of the season were registered in the East Troy, Marshfield and Mazomanie black light traps in the past week. Emergence has begun at other locations where 374 degree days (base 50°F) were surpassed by May 28. Because most corn is unsuitable for larval development at this time, egg deposition on alternate hosts such as barley, oats, potatoes and native weeds can be anticipated.

BLACK CUTWORM: Light injury to seedling corn was noted at a few sites in the south-central counties. Growers must carefully inspect their fields for evidence of this pest over the next several weeks, particularly late-planted corn and fields that previously contained grassy weeds. Treatment is justified if more than 5% of plants are damaged.

POTATO LEAFHOPPER: Adults are fairly well distributed over much of the state and have been encountered as far north as Lincoln and Marathon counties. The highest number detected in the last reporting period was 8 per 25 sweeps near Darlington in Lafayette County. No nymphs have been collected yet.

PLUM CURCULIO: Significant activity was noted from May 20-22 near Mineral Point in Iowa County where 12 adults were captured in 2 pyramid traps. The first apparent oviposition scars on developing fruits were reported near Rochester in Racine County on May 22.

Spray applications to prevent egg deposition are warranted when 0.5-1% fruit injury is observed.

FORAGES

ALFALFA WEEVIL: Populations have increased in most alfalfa fields. Surveys conducted in the southern districts found counts of 1-20 per 25 sweeps, with an average of 6 per 25 sweeps. The degree of feeding injury is still very light in most cases and only a few fields are showing moderate defoliation levels (10-15%). Since first growth alfalfa is at the optimum stage for harvest, there is no reason why significant damage should occur, except in rare fields or if cutting is delayed.

ALFALFA BLOTCH LEAFMINER: Pinholes and leaf mines were noted for the first time this week in alfalfa in the south-central counties. The percentage of trifoliates affected ranged from 5-80%, and in several fields the extent of injury was well above the threshold of 30-40%. Excessive leaf mining by this insect reduces forage quality and may result in yield loss.



Alfalfa blotch leafminer

Krista Hamilton DATCP

POTATO LEAFHOPPER: Comparatively high numbers of migrants are already present in alfalfa, likely due to persistent southerly winds in the previous week. Counts vary from 1-8 per 25 sweeps in alfalfa and adults can be found uniformly in fields throughout the southern areas.

PEA APHID: A marked population increase occurred in alfalfa in the last reporting period. Most fields contain 55 or more per 25 sweeps, while exceptional fields have 250 aphids per 25 sweeps. Significantly, the proportion of small nymphs indicates that reproduction is heavy.

DEGREE DAYS JANUARY 1 - MAY 28

LOCATION	50°F	2008	NORM	48°F	40°F
Dubuque, IA	447	384	—	456	928
Lone Rock	439	356	—	438	888
Beloit	456	404	—	466	938
Madison	417	341	503	427	862
Sullivan	441	385	490	450	905
Juneau	409	361	—	421	850
Waukesha	416	330	—	430	869
Hartford	395	322	—	412	833
Racine	370	277	—	386	795
Milwaukee	366	275	376	384	791
Appleton	331	292	417	330	714
Green Bay	280	250	399	285	643
Big Flats	391	320	—	383	788
Hancock	380	321	507	360	765
Port Edwards	364	305	469	361	748
La Crosse	428	342	544	405	877
Eau Claire	404	303	477	394	825
Cumberland	359	260	441	324	725
Bayfield	229	162	298	199	496
Wausau	299	268	415	291	647
Medford	322	245	361	302	678
Crivitz	263	227	—	253	595
Crandon	258	223	358	233	556

*Method: ModifiedB50; Sine48; ModifiedB40 as of Jan 1, 2009.
NORMALS based on 30-year average daily temps, 1971-2001.*

TARNISHED PLANT BUG: Alfalfa surveyed in the south-central and southwest counties showed 1-10 per 25 sweeps, while in Columbia and Dane counties about ½ of the plant bugs collected were nymphs. Mixed counts of this species and the alfalfa plant bug should not exceed 5 per sweep at any point during the growing season.

MEADOW SPITTLEBUG: Spittle masses are becoming more noticeable. Surveyed fields in Columbia, Dane, Lafayette and Rock counties contained 0-5 per 20 stems, with an average of 1 per 20 stems. Nymphs presently are about ¼-½ mature.

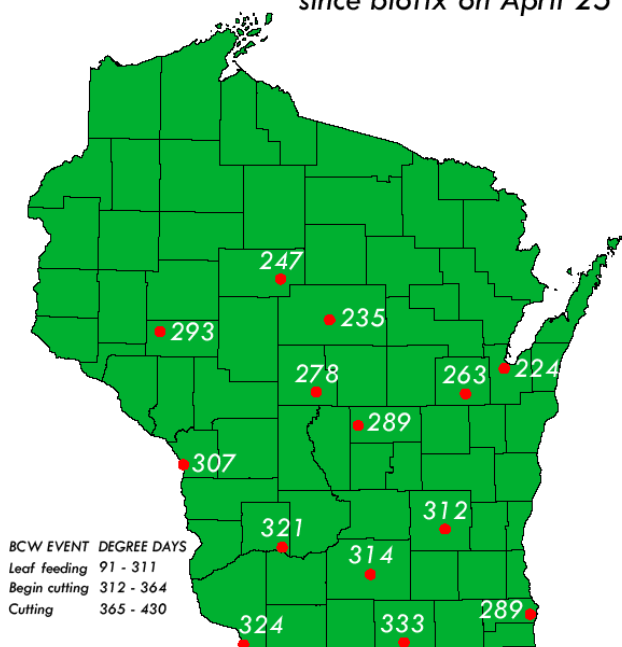
CORN

BLACK CUTWORM: Light damage attributed to this insect has become apparent in some corn fields. Less than 4% of the plants were affected in fields surveyed in Dane County, and in Crawford and Vernon counties 1-11% of plants in the marginal rows showed leaf feeding

injury. Larvae from migrant moths that appeared in late April are generally half grown and capable of cutting corn seedlings. The injurious cutting stage may last 2½-3 weeks, depending on temperatures.

The accompanying map shows degree day (base 50°F) accumulations for 14 localities since the biofix date of April 25. Leaf feeding by early instar larvae can be expected where degree days total 91-311, initial cutting by 4th instar is anticipated in areas where totals range from 312-364, and cutting by 5th instar larvae is projected for advanced southern locations once 365-430 have been reached. Treatment is recommended if more than 5% of plants are damaged.

Black Cutworm Degree Day Accumulations since biofix on April 25



Wisconsin Department of Agriculture, Trade and Consumer Protection



EUROPEAN CORN BORER: Pupation of overwintered corn borers is well underway. The first flight of corn borers began this week with the capture of moths at the East Troy, Marshfield and Mazomanie trap locations. On the basis of projected degree day accumulations, the majority of moths should not be expected until June 9-16 in the southern areas, June 11-18 in the central areas, and a week or more later in the northern areas.

SMALL GRAINS

CROWN RUST OF OATS: A report from Dane County indicates that rust pustules are unusually abundant on

the alternate host, buckthorn, at a site in northeast Madison.

SOYBEANS

SOYBEAN APHID: The first soybean aphids of the growing season should begin to colonize fields by early to mid-June. Previous first detections occurred on June 18 in 2008, May 24 in 2007, June 7 in 2006, and June 3 in 2005. The outlook for soybean aphid in 2009 is uncertain since the Wisconsin network of suction traps documented a very heavy migration last fall, but subsequent surveys failed to find overwintered eggs on buckthorn (the winter host). This inconsistency has complicated forecasts for the soybean aphid, which usually follows an every-other-year cycle of outbreaks. It is speculated that spores of an entomopathogenic fungus carried by aphids migrating from soybeans caused widespread mortality before egg deposition occurred on the winter host.

BEAN LEAF BEETLE: Surveys conducted in 74 randomly selected first growth alfalfa fields yielded only 13 overwintered beetles from May 18-28. This is comparable to the number found in the same counties last season, but considerably less than the 375 beetles collected in the spring of 2007. Specimens were swept from fields in Green, Lafayette, Rock and Trempealeau counties, but not Columbia, Crawford, Dane, Dodge, Iowa, Jackson or La Crosse counties. Preliminary results indicate very low populations for the southern and west-central areas, thus a low risk of economic injury to emerging soybeans.

POTATOES

CORKY RINGSPOT: This potato disease was first detected in a limited area of Buffalo County in 2007 and eradication efforts are now underway at the site of introduction. Corky ringspot, caused by tobacco rattle virus, leads to internal tuber discoloration that appears as dry, corky brown rings or flecks in potatoes. Damage from this disease may result in crop rejection by commercial processors.

The Plant Industry Laboratory is currently performing a survey for corky ringspot and is offering free testing of potatoes to all Wisconsin growers. Survey objectives are to determine if the disease is spreading among potato fields and to provide growers with the accurate

diagnoses needed to develop control plans. Seed potatoes and seed stock originating out-of-state are of particular interest.

Corky ringspot is not a regulated disease, but could cause substantial economic losses to Wisconsin potato growers. Persons interested in participating should contact Sara Ott (715-486-0429) or Tim Leege (715-340-0152) for more information.

WEEDS

LEAFY SPURGE: This invasive creeping perennial is evident along roadsides throughout southern and western Wisconsin. Leafy spurge readily migrates to pastures where it quickly becomes established and degrades forage quality. A combination of control methods such as irrigating, herbicide use, or introducing sheep or goats into pasture systems can reduce spurge populations over time and give grasses a competitive advantage. Most control programs must be implemented for 4-5 consecutive years to be successful.

FIELD HORSETAIL: The vegetative form of field horsetail was noted in the peripheral rows of corn fields surveyed in Vernon County. Plants averaged 8-10 inches tall. UW-Extension Weed Scientist Chris Boerboom recently reported that this weed has become an increasing problem in no-till cropping systems because its underground networks of rhizomes are left intact and typical burndown herbicides tend to be ineffective.



Field horsetail

Clarissa Hammond DATCP

COW PARSNIP: Early flowering plants are visible in wooded areas in the southern and west-central counties. The sap of this species contains a phototoxin that causes

blistering and severe burns with exposure to sunlight. Caution should be taken to avoid direct contact with the sap when mowing or manually removing plants.

GIANT RAGWEED: Seedlings observed in no-till corn fields in Crawford County were 3 inches tall on May 27. These advanced plants were likely some of the first to emerge this spring. Most agronomic fields surveyed in Crawford, Grant, La Crosse and Vernon counties generally were free of giant ragweed, although this will likely change as more plants emerge in the next 2-3 weeks.



Giant ragweed

Clarissa Hammond DATCP

FRUITS

PEAR THRIPS: Moderate to high numbers of these tiny insects were reported in a Fond du Lac County apple orchard. As many as 12 individuals per blossom were noted on the Cortland variety, although their distribution appeared to be more influenced by tree location than cultivar. Heavy infestations of thrips can cause abnormal leaf formation, leaf tatter, and flower damage on orchard trees as the buds open in spring.

CODLING MOTH: Hatch of first generation eggs can be expected in advanced southern orchards in the next week, following the accumulation of 491 degree days (base 50°F). Conventional sprays directed against early instar larvae should be applied 250 degree days after biofix and 10-14 days later if necessary. Insect growth regulators must be applied at egg hatch or about 100 degree days after biofix.

SPOTTED TENTIFORM LEAFMINER: The first flight of moths has slowed considerably in the southern half of the

state, and trap counts have declined to their lowest levels in four weeks. Assessments to determine the average numbers of first generation sapfeeder mines per leaf should be performed at this time.

CRANBERRY REPORT: Favorable weather conditions in the last week improved plant growth and accelerated activities on cranberry beds. Based on growing degree day accumulations (base 50°F), the season has pulled ahead of last year but is still slightly behind normal. Current growth stages at most marsh sites range from bud break to roughly ½ inch elongation. New plantings are somewhat more advanced than production beds and have reached the roughneck stage. Insect activity, as reported by crop scouts, is intensifying as temperatures increase. Numerous growers are opting for a "pest control flood" rather than pesticide use to suppress insect populations.

BLACKHEADED FIREWORM: Numbers have exceeded the economic threshold of 2-3 larvae per 20 sweeps in some cranberry beds. As indicated, control measures such as flooding or insecticide applications have been initiated to reduce feeding injury by 1st generation larvae.

SPARGANOTHIS FRUITWORM: Larvae were in the 1st and 2nd instars on May 28. Their webbing is conspicuous at the edges of beds where plant growth has been more rapid. Like the blackheaded fireworm, this insect can be effectively controlled by flooding or insecticide use.



Sparganothis fruitworm moth

meena www.picasaweb.google.com

SPANWORM/LOOPERS/FALSE ARMYWORM: Economic populations of loopers, spanworms and false armyworms have developed in the cranberry growing areas of the

state. False armyworm larvae were swept at the rate of 3-8 per 20 sweeps in the past week, which is above the threshold of 3-4 per 20 sweeps.

NURSERY & LANDSCAPE

FLETCHER SCALE: This scale insect which overwinters on yew, arborvitae and juniper has been reported in Rock and St. Croix counties. Fletcher scale weakens plants by removing fluids and secreting honeydew, and under heavy attack can cause sooty mold to develop on the stems, premature needle drop, or branch dieback. For severe infestations, horticultural oils or soaps, insect growth regulators, or conventional insecticides may be used as soon as the crawlers are noticed. The phenology model for this insect predicts egg hatch at 600 degree days (base 50°F), or as early as June 7 in southern Wisconsin.



Fletcher scale on yew

Konnie Jerabek DATCP

EASTERN TENT CATERPILLAR: A severe outbreak of larvae has developed in an unmanaged orchard in Rock County. According to the UW-Extension Crops and Soils Agent, approximately 60-90 acres are affected. Most caterpillars are now in the last instar and have begun migrating from webs prior to pupation.

BROOM RUST: Characteristic symptoms of this fungal disease, including dense clusters of stunted, thickened twigs emerging from a single point on a branch, were observed on a balsam fir tree in Wood County. The broom rust fungus has a two-year life cycle in which it alternates between balsam fir (the primary host) and chickweed (the secondary host). Control is best achieved

by removing the alternate host and pruning out and destroying the brooms.



Balsam fir broom rust

Sara Ott DATCP

TRAPPING NETWORKS

STRIPED CUCUMBER BEETLE: No activity was reported from Poplar Grove, Illinois where yellow sticky traps have been deployed to track the emergence and relative abundance of this cucurbit pest. Beetles are expected to appear in greater numbers by early June.

BLACK LIGHT TRAPS: A modest increase in activity by nocturnal moths was noted in the past week. The first European corn borer adults were registered at a few locations, and low numbers of true armyworms continued to appear in traps. Other species captured in the last reporting period were the black cutworm, celery looper, forage looper, spotted cutworm and variegated cutworm.



European corn borer moth

www.cancoillotte.net

BLACK CUTWORM TRAPS: Growers of late-planted corn, peas, potatoes and other susceptible vegetable crops should be aware of the potential for larval outbreaks next month due to secondary surges of migrant adults. Although the number of moths appearing in traps has lessened since early May, significant flights continue to be registered at a few sites. Belmont in Lafayette County, for example, reported a total of 32 moths in the previous week and another 29 moths since May 22. Pheromone trap counts for 23 sites since late April were as follows: April 24-30 (62), May 1-7 (175), May 8-14 (124), May 15-21 (88), and May 22-28 (76).

FOREST

GYPSY MOTH TRAPPING PROGRAM: Traps are now being placed at sites throughout 45 Wisconsin counties. As of May 27, seasonal field workers have set 5,408 traps, or 19% of the expected total. Phenology models indicate that larval populations currently are in the 2nd and 3rd instars in the southern counties, and 1st and 2nd instars in the north. The adult flight period is likely to begin by late June.



Gypsy moth milk carton trap

DATCP Gypsy Moth Program

APPLE INSECT & BLACK LIGHT TRAP COUNTS MAY 22 - 28

COUNTY	DATE	SITE	STLM ¹	RBLR ²	CM ³	OBLR ⁴	OBLR ⁵	AM RED ⁶	AM YELLOW ⁷
Bayfield	5/22-5/28	Keystone	32	7	0	—			
Bayfield	5/22-5/28	Bayfield Apple	—	—	—	—			
Bayfield	5/19-5/23	Oriente	56	1	—	—			
Brown	5/22-5/28	Oneida	400	22	0	—			
Chippewa	5/22-5/28	Chippewa Falls 1	—	—	17	0			
Dane	5/21-5/28	Deerfield	10	15	1	0			
Dane	5/22-5/28	Stoughton	26	19	3	0			
Dane	5/22-5/26	West Madison	26	0	5	0			
Dodge	5/22-5/28	Brownsville	10	7	0	0			
Fond du Lac	5/22-5/28	Campbellsport	1	0	0	1			
Fond du Lac	5/22-5/28	Malone	75	9	0	0			
Fond du Lac	5/22-5/28	Rosendale	102	31	1	0			
Grant	5/22-5/28	Sinsinawa	0	0	3	0			
Green	5/22-5/28	Brodhead	4	3	2	2	0		
Iowa	5/22-5/28	Dodgeville	—	—	—	—			
Iowa	5/22-5/28	Mineral Point	10	5	1	0		14 PC	
Jackson	5/22-5/28	Hixton	35	0	2	0			
Kenosha	5/22-5/28	Burlington	100	4	0	0			
Marinette	5/22-5/28	Niagara	1162	4	—	—			
Marquette	5/22-5/27	Montello	120	9	0	0			
Ozaukee	5/21-5/28	Mequon	120	15	22	0			
Pierce	5/22-5/28	Beldenville	142	4	1	3	0		
Pierce	5/21-5/28	Spring Valley	136	59	0	0	1		
Racine	5/22-5/28	Raymond	16	5	3	7			
Racine	5/22-5/28	Rochester	90	17	4	0			
Richland	5/21-5/26	Hillpoint	54	10	16	—			
Sheboygan	5/22-5/28	Plymouth	64	18	2	0			
Waukesha	5/22-5/28	New Berlin	10	2	14	3			
Walworth	5/22-5/28	East Troy	—	—	—	—			
Walworth	5/22-5/28	Elkhorn	—	—	—	—			

¹Spotted tentiform leafminer; ²Redbanded leafroller; ³Codling moth; ⁴Obliquebanded leafroller EASTERN; ⁵Oblique-banded leafroller WESTERN; ⁶Apple maggot red ball; ^{*}Unbaited red ball; ^{**}Baited red ball; ⁷Apple maggot yellow board.

COUNTY	DATE	SITE	ECB ¹	TA ²	BCW ³	SCW ⁴	DCW ⁵	CE ⁶	CEL ⁷	WBC ⁸	FORL ⁹	VCW ¹⁰
Chippewa	5/22-5/28	Chipp Falls	0	0	0	0	0	0	4	0	0	0
Columbia	5/22-5/28	Arlington	—	—	—	—	—	—	—	—	—	—
Dane	5/22-5/26	Mazomanie	2	0	3	0	0	0	0	0	0	0
Grant	5/22-5/28	Lancaster	0	5	0	0	0	0	1	0	0	0
Manitowoc	5/22-5/28	Manitowoc	0	4	0	0	0	0	0	0	5	0
Marathon	5/22-5/28	Wausau	—	—	—	—	—	—	—	—	—	—
Monroe	5/22-5/28	Sparta	0	0	0	0	1	0	0	0	0	0
Rock	5/22-5/28	Janesville	0	9	0	1	0	0	3	0	1	1
Walworth	5/22-5/28	East Troy	1	0	4	0	0	0	0	0	0	0
Wood	5/22-5/28	Marshfield	1	10	2	0	0	0	6	0	2	3

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