

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

Another week of mild, sunny and dry weather favored continued field work by Wisconsin farmers. Planting advanced rapidly in the last several days, and corn has started to emerge throughout the south. Despite cooler than normal temperatures and wet soil conditions this spring, well over half of the intended corn acreage has been planted. The growing season remains 6-15 days behind normal and 9-19 days behind last year depending on the region of the state. Alfalfa harvest operations are underway in the southern counties where most fields presently are 24 inches tall. It should be noted that the rate of alfalfa growth this season has outpaced development of its main adversary, the alfalfa weevil. This indicates that damage to the first crop of alfalfa is likely to be minimal if fields are harvested at the proper stage.

LOOKING AHEAD

MOSQUITOES: The surplus rainfall in previous weeks and milder daytime temperatures has resulted in high mosquito numbers. Biting is not limited to woods and wetlands, but is occurring in residential settings as well. Flooded areas are still very common near rivers in the southern portion of the state, and it is inevitable that populations will continue to increase.

EUROPEAN CORN BORER: Emergence of moths can be expected over the weekend near Beloit and Sullivan where 331-336 degree days (base 50°F) had accumulated as of May 22, and in the next week or two at other locations. This annual event begins at approximately 374 degree days.

BLACK CUTWORM: Conditions are very conducive for outbreaks of this pest. Growers are strongly urged to monitor fields over the next several weeks for developing problems, particularly those fields affected by spring flooding or with previous grassy weed infestations. Early detection and control is critical because later treatments are not very effective and herbicide applications may force larvae onto corn plants as the grasses are eliminated. Pheromone trap counts for the May 16-22 reporting period ranged from 0-12 moths per trap and a total of 62 moths were captured.

SOYBEAN APHID: The first soybean aphids of the 2008 growing season should begin to colonize Wisconsin soybeans fields in early June. Previous first detections occurred on May 24 in 2007, June 7 in 2006, and June 3 in 2005.

PLUM CURCULIO: No feeding or oviposition has been observed, but overwintered adults are likely to start moving into orchards by next week if mean daytime

temperatures exceed 60°F. Early blooming varieties should be checked for evidence of plum curculio activity after petal fall.

FORAGES

PEA APHID: Numbers have been on the increase since last week. Generally populations are less than 13 per 50 sweeps in most fields, but some fields contain up to 30 per 50 sweeps. Nymph production is underway in the south and counts are expected to escalate sharply in early June. No winged individuals have been detected in alfalfa or early peas.



Pea aphid adult females

Krista Hamilton DATCP

ALFALFA WEEVIL: Populations of early instar larvae remain very low in the southern portion of the state. Counts average less than 5 per 50 sweeps in Dane, Grant, Kenosha, Racine, Richland, Sauk, Walworth and Waukesha counties and only a trace amount of tip feeding injury is observable. Due to the dense alfalfa growth apparent at this time and the low numbers of larvae encountered, it seems unlikely that there will be significant alfalfa weevil damage before alfalfa is cut, except in rare fields or if harvest is delayed. Alfalfa weevil larvae are of principal concern in the first crop. One exceptional field with a moderate population of 40 larvae per 50 sweeps and 10% tip feeding injury was found in eastern Dane County on May 19, emphasizing the need for surveillance on a field by field basis.

POTATO LEAFHOPPER: Surveys of alfalfa detected very low numbers of migrants in 2 of 43 fields sampled. Counts of 0-2 per 50 sweeps were noted in Dane, Grant, Kenosha, Racine, Richland, Sauk and Walworth

DEGREE DAYS MARCH 1 - MAY 22

LOCATION	50°F	2007	NORM	48°F	40°F
Dubuque, IA	315	538	412	324	687
Lone Rock	292	502	—	280	619
Beloit	346	504	—	348	715
Madison	283	453	428	277	607
Sullivan	331	433	414	322	674
Juneau	307	421	—	296	631
Waukesha	283	406	—	276	611
Hartford	273	405	—	265	593
Racine	237	367	—	236	561
Milwaukee	233	367	317	231	549
Appleton	240	384	345	230	529
Green Bay	203	331	331	196	489
Big Flats	263	444	—	237	536
Hancock	265	428	430	241	540
Port Edwards	251	429	395	229	512
La Crosse	279	548	462	267	590
Eau Claire	246	474	400	227	515
Cumberland	209	429	366	181	449
Bayfield	124	270	248	100	322
Wausau	218	381	344	193	456
Medford	196	379	297	171	425
Crivitz	183	306	—	169	446
Crandon	177	328	299	145	382

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

counties. The major influx of potato leafhoppers from source populations in the Gulf States has yet to occur.

MEADOW SPITTLEBUG: Eggs began hatching last week and spittle masses are now evident in alfalfa. Numbers presently are below 1 nymph per 50 stems.

PLANT BUG: Nymphs were observed for the first time on May 19 in Dane County alfalfa. These bright green insects may be difficult to distinguish from pea aphids at this early stage, but they scatter rapidly from sweep nets, unlike pea aphids which collect at the bottom of nets and move comparatively slowly.

ALFALFA CATERPILLAR: Fields observations indicate that a majority of larvae are in the late stages of development, although relatively few have been collected in sweep nets this spring. Emergence of the pale yellow adult butterflies has begun in the southern counties and should increase in the coming week.

CLOVER LEAF WEEVIL: Larvae of the clover leaf weevil, *Hypera punctata*, are not as prevalent this season. Counts have been below 3 per 50 sweeps in every south central and southwestern alfalfa field checked since late April. The larvae are more common in alfalfa fields interspersed with clover.

CORN

EUROPEAN CORN BORER: No emergence of adults was noted this week. The first moths should begin appearing in black light traps by May 25, once 374 degree days (base 50°F) have been surpassed. Larval surveys conducted last fall indicate that there is a low potential for economic infestations of first generation corn borers, except in some west central and central counties where high populations above 1.0 borer per plant (100 corn borers per 100 plants) were detected in September-October 2007. Black light trap counts at locations in these areas should be closely watched from late May to mid-June to assess the magnitude of the first flight of moths and the potential for damage by first generation larvae next month.

BLACK CUTWORM: Corn emerging from the soil is at risk of feeding injury by 4th instar black cutworm larvae. By next week, approximately 300 degree days (base 50°F) will have accumulated since the first significant captures of black cutworm moths were registered on April 24, and larvae will have grown large enough to completely sever corn plants at or below ground level. The low temperatures and flooding in April and early May resulted in abundant growth of grass in many fields, which is very favorable for cutworm egg laying and early larval development. No reports of damage have been received so far, but conditions this spring are extremely conducive for outbreaks of this pest.

SOYBEANS

BEAN LEAF BEETLE: Surveys in the southern third of the state yielded just 13 overwintered bean leaf beetles in the past week, significantly fewer than the 375 beetles found in the same counties during the 2007 spring survey. Presumably, extreme cold winter temperatures are responsible for the lower number of beetles detected this season. As of May 22, a total of 94 randomly selected first growth alfalfa fields were sampled in Dane,

Grant, Green, Iowa, Jefferson, Kenosha, Lafayette, Ozaukee, Racine, Richland, Sauk, Walworth, Washington and Waukesha counties as part of the annual survey conducted by DATCP field specialists. The survey is by no means complete, but preliminary indications are that winter mortality was high and there is a low risk of defoliation to soybeans emerging from late May to mid-June.

WEEDS

WHITE CAMPION: Flowering plants began to appear in scattered southern alfalfa fields in the past week. This species is an occasional problem in forage crops, but it is most persistent and competitive in no-till corn and soybeans. White campion acts as a summer annual, winter annual, biennial or short-lived perennial, and given this versatility, good control can be difficult to achieve. Scout fields in fall and spring to determine if management is necessary.



White campion flower

Clarissa Hammond DATCP

WEEDS IN CORN: Many emerging corn fields may appear to be weed-free at a distance, but upon closer examination, populations of ½" - 2" common ragweed, common lambsquarters, giant foxtail, giant ragweed, redroot pigweed, wild mustard, and velvetleaf plants can be seen growing adjacent to the seedlings. These species, along with other problematic agricultural weeds, have long germination periods that may extend through spring and into late summer, making post-emergence control measures necessary. While the latest emerging weeds usually have little impact on yield, weeds emerging now or within the critical period of weed control (emergence to V8) can cause yield loss. Both the corn

and the weeds have equal opportunity to capture sunlight and obtain nutrients and water from the soil.



Common ragweed seedling

Clarissa Hammond DATCP

IDENTIFICATION NOTE: Cotyledons of common lambsquarters and redroot pigweed appear quite similar at emergence, but redroot pigweed is distinguished by a prominent midvein and common lambsquarters leaves appear as if they are coated in white mealy granules. Identification of these common weeds is less difficult once the first true leaves become visible, and a second scouting trip may be required after plants are more developed and can be readily differentiated.

LEAFY SPURGE: Plants along roadsides were flowering this week. This very aggressive herbaceous perennial exudes toxins from its roots to prevent other plants from growing nearby. It spreads both vegetatively and by seed, and can shoot mature seeds distances up to 15 feet. Leafy spurge is designated as a noxious weed in Wisconsin.

FRUITS

SPOTTED TENTIFORM LEAFMINER: Pheromone trap counts at most southern orchards have declined to their lowest levels in 3 weeks, and populations are now comprised mostly of first generation sapfeeder and tissue feeder larvae. Peak trap counts of 425-950 moths were registered 2 weeks ago in Dane, Fond du Lac, Iowa, Jackson, and Racine counties, trap counts ranging from 450-1,980 moths were registered last week in Oneida, Sheboygan and Waukesha counties, and peak counts of 240-864 moths were documented this week in Chippewa, Marquette, Marinette, and Pierce counties. The peak of

the first flight should occur near Bayfield around May 28. Sampling 10 terminals and fruit spurs per tree on 2-3 trees in each area of the orchard is recommended for orchards that recently registered peak flights. A large percentage of leaf mines should be visible on the undersides of leaves about 10-14 days after a peak capture has occurred. The economic threshold for the first generation is 0.1 mine per leaf.

APPLE SCAB: The first scab lesions have been visible for 5-7 days in southern orchards from a primary infection period that occurred on April 24-25, according to a report from Orchard IPM Specialist John Aue. He noted that all of the lesions are on the 2nd and 3rd leaves in the cluster. The past rainy weather has favored the spread of scab this spring.

CODLING MOTH: The first flight of moths is beginning in the southern portion of the state, as evidenced by low trap counts ranging from 0.67-6 moths at 5 of 30 reporting orchards (see Page 42). Peak flight activity is not expected to occur in southern orchards until 500 degree days (base 50°F) have been reached. The biofix, or first sustained capture of moths, was set near Gays Mills in Crawford County in the past week.

EASTERN TENT CATERPILLAR: The largest tents in the southern portion of the state measured 12 inches long and 6 inches across as of May 22, and larvae were in the 4th instar. Complete defoliation of a few roadside trees was observed in Dane, Grant and Sauk counties, namely those trees with multiple large tents. Larvae should begin to migrate and show signs of pupation before the end of the month.



Eastern tent caterpillars

Krista Hamilton DATCP

FIRE BLIGHT: Several factors converge at this time of the year to spread fireblight in orchards. When temperatures reach 65°F around bloom, the bacteria become active and exude from existing cankers. Flowers on trees provide a pathway for entry into the plant tissues and attract bees, which spread the bacteria between trees. Symptoms of fire blight include cankered twigs and branches with blackened, drooping foliage that appear to have been scorched. Pruning out cankers and infected branches or "strikes" 10-12 inches beyond the diseased area can alleviate the problem. Tools should be disinfected between cuts with a 30-second soak in a 10% bleach solution. Use two sets of pruners, exchanging tools between cuts. Follow spray recommendations in UW-Extension fact sheet A3314 Commercial Tree Fruit Spray Guide, or A2179 Apple Pest Management for Home Gardeners, to prevent the spread of this bacterial disease.



Branch or 'strike' infected with fire blight M. Allen treexperts.mb.ca

REDBANDED LEAFROLLER: A minor decrease in redbanded leafroller flight activity was registered in pheromone traps in the past two weeks. Counts averaged about 42 moths per trap from May 16-22, which compares to an average of 49 moths from May 9-15, and an average of 78 moths from May 2-8. Larvae in southern orchards are in the 2nd and 3rd instars and have started to feed in terminals.

NURSERY & LANDSCAPE

TOBACCO RATTLE VIRUS: Two hosta varieties from a retailer in Winnebago County, 'So Sweet' and 'Gold Standard', tested positive for Tobacco Rattle Virus (TRV). This virus has a wide host range including hosta,

bleeding heart, peony, coral bells, and several solanaceous vegetables like potato and tomato. Once plants are infected with TRV there is little that can be done, therefore avoidance is the best control practice. Avoid purchasing plants with viral symptoms such as ring spots, mottling, chlorosis, and curling to prevent the introduction of TRV into uninfected areas.



Tobacco Rattle Virus on Hosta 'Gold Standard' Daniel Gerhardt DATCP

CHESTNET BROWN BARK BEETLE: The chestnet brown bark beetle, *Pityogenes hopkinsi*, colonizes weakened and healthy pine trees that are stressed due to crowding and excessive shade. DATCP nursery inspectors generally observe the most severe problems with this insect in white pines that have been balled and burlapped in the field, and in pines 1-2 days after they have been pulled from the ground. Infestations are characterized by pitch resin and frass that oozes from the beetle entrance hole. This species, like other bark beetles, is acutely sensitive to the condition of white pines and rapidly locates and colonizes stressed trees.



Pityogenes hopkinsi on white pine in Sauk Co. Greg Helmbrecht DATCP

HOSTA VIRUS X (HVX): Hosta 'Gold Standard' and Hosta 'Hyacinthia' cultivars at retail stores in Polk and St. Croix counties were found to be infected with HVX and consequently were ordered "removed from sale and destroyed". Host Virus X has become more prevalent in the nursery trade in recent years, and home gardeners as well as nursery stock growers and dealers should be alert for viral symptoms such as mottled, crinkled, speckled or streaked leaves. Good sanitation is the most practical control measure since HVX may be transmitted to healthy plants by infected sap on cutting and digging tools. Plants infected with HVX may express viral symptoms that vary widely by cultivar, or show no symptoms at all. Hostas suspected of having HVX should be submitted to the UW Plant Disease Diagnostics Clinic for testing: <http://www.plantpath.wisc.edu/pddc/index.html>.



Hosta 'Sum and Substance' infected with HVX www.hostalibrary.org

GYPSY MOTH SPRAY PROGRAM: The first of two aerial *Bacillus thuringiensis* var. *kurstaki* (Btk) treatments was applied to one 538-acre site in Iowa County and two sites totaling 2,027 acres in Richland County on May 19. In Green County, where Btk treatments were made last week, a second Btk treatment was applied on May 21. Second applications of the Btk bacterium are necessary to kill late hatching gypsy moth larvae. Treatments totaling 37,173 acres in Ashland, Bayfield, Clark, Green, Iowa, Jackson, Monroe, Richland, Rusk and Taylor counties are scheduled for this season.

GYPSY MOTH TRAPPING PROGRAM: Gypsy moth trapping started recently, with the goal of setting approximately 32,400 traps in 48 counties by July 4. As of May 21, trap setting was 98% complete in Crawford County, 77% complete in Walworth County, and 60%

complete in Adams County. The number of adult male gypsy moths caught in each trap is used to determine potential treatment sites for the following year.

PEST EXTRAS

SCALE INSECTS ON ORCHIDS: A light infestation of scale insects, tentatively identified as the brown soft scale (*Coccus hesperidum*), was reported on *Phalaenopsis amabilis* in a home orchid collection. The insects were no longer active, but in a resting condition as tiny, brown spheres on the leaf margins. It is suspected that the scales were acquired by purchasing a contaminated plant. The resident was directed to immediately isolate the infested orchid to prevent the crawlers from spreading. Repeated applications of horticultural oils, liquid dish detergent solutions, or rubbing alcohol every 2-5 weeks are also advisable to suppress these insects. The hardened scales may be easily peeled from the leaves and should be removed prior to using any product. Avoid selecting infested plants by carefully examining the undersides of leaves at the time of purchase.



Scale insects on *Phalaenopsis amabilis*

Cynthia Arbiture 2008

APPLE INSECT COUNTS MAY 16-22

COUNTY	DATE	SITE	STLM ¹	RBLR ²	CM ³	OBLR ⁴	AM RED ⁵	AM ⁶
Bayfield	5/13-5/19	Orienta	4	1	-	-		
Bayfield	5/16-5/22	Lobermeier	31	34	0	0		
Chippewa	5/15-5/22	Chippewa Falls	400	63	0	2		
Crawford	5/16-5/22	Gays Mills	240	72	6	1		
Crawford	5/16-5/22	Gays Mills (Kickapoo)	27	45	0	-		
Dane	5/15-5/22	Deerfield	59	55	2	2		
Dane	5/16-5/22	Stoughton	6	71	0	0		
Dane	5/16-5/22	West Madison	10	12	1	3		
Dodge	5/16-5/22	Brownsville	12	8	0	0		
Fond du Lac	5/16-5/22	Campbellsport 1	75	25	0	125		
Fond du Lac	5/16-5/22	Campbellsport 2	100	0	0	0		
Fond du Lac	5/16-5/22	Malone	900	68	0	0		
Grant	5/16-5/22	Sinsinawa	9	5	0	0		
Green	5/16-5/22	Brodhead	3	42	0	0		
Iowa	5/16-5/22	Dodgeville	345	67	4	0		
Iowa	5/16-5/22	Mineral Point	4	48	0	0		
Jackson	5/16-5/22	Hixton	122	12	0	0		
Marquette	5/16-5/22	Montello	864	87	0	0		
Marinette	5/16-5/22	Niagara	708	3	0	0		
Ozaukee	5/14-5/19	Mequon	110	25	0	0		
Pierce	5/16-5/22	Beldenville	240	25	0	0		
Pierce	5/16-5/22	Spring Valley	410	98	0	2		
Racine	5/15-5/22	Rochester	190	72	0.67	-		
Racine	5/16-5/22	Raymond	337	52	0	0		
Richland	5/16-5/22	Hill Point	170	36	0	0		
Richland	5/16-5/22	Richland Center E	58	37	0	-		
Sauk	5/16-5/22	Baraboo	26	23	0	-		
Sheboygan	5/16-5/22	Plymouth	365	163	0	-		
Waukesha	5/16-5/22	New Berlin	192	24	0	0		
Walworth	5/16-5/22	Elkhorn	30	30	0	23		
Walworth	5/16-5/22	East Troy	20	15	0	5		

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 15-22

COUNTY	DATE	SITE	ECB ¹	TA ²	BCW ³	SCW ⁴	DCW ⁵	CE ⁶	CEL ⁷	ALFL ⁸	FORL ⁹	VCW ¹⁰
Chippewa	5/15-5/21	Chipp. Falls	0	0	0	0	0	0	0	0	0	0
Columbia	5/15-5/21	Arlington	0	1	0	0	0	0	0	0	0	0
Dane	5/08-5/22	Mazomanie	0	5	2	0	0	0	0	0	0	0
Grant	5/15-5/22	Lancaster	0	4	0	0	0	0	0	0	0	0
Manitowoc	5/15-5/22	Manitowoc	0	0	0	0	0	0	0	0	1	0
Monroe	5/15-5/22	Sparta	0	0	0	0	0	0	0	0	0	0
Rock	5/15-5/21	Janesville	0	16	0	0	0	0	3	0	1	0
Walworth	5/15-5/22	East Troy	0	2	0	0	0	0	1	0	0	0
Wood	5/15-5/22	Marshfield	0	1	2	0	0	0	0	0	0	1

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