

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

As the week began, a high pressure system settled over the state, producing clear skies, light winds and pleasant conditions. Significant planting of oats, potatoes, and some corn was accomplished as farmers capitalized on the dry, sunny weather. Notably, seeding of the 2010 oat crop advanced to 62% at the start of the week, 29 percentage points ahead of last year and 41 points ahead of the 5-year average. Full-scale corn planting began in the south-central and southwest counties. According to the State Climatology Office, the weather of late March and early April was the warmest in the past 120 years at several Wisconsin locations, and the season is now 10-16 days ahead of normal. Development of plants and insects has increased greatly in response to the mild temperatures. These conditions suggest that pest insects will begin affecting crops at a relatively early date, especially if the warm, dry trend continues.

LOOKING AHEAD

ALFALFA WEEVIL: Adults have been active in southern Wisconsin since April 12. Surveys this week yielded weevils at the rate of 1-3 per 50 sweeps in alfalfa 10 inches or taller. At current temperatures, larvae should begin appearing in sweep net collections by April 30.

EUROPEAN CORN BORER: Pupation has started near Beloit, Lone Rock, Sullivan and other advanced locations. Black light traps could register the first moths of the 2010 growing season as early as May 5. Preliminary indications are that the spring flight will be insignificant this year.

BLACK CUTWORM: Numbers have not increased substantially since their arrival into the state about two weeks ago. Counts ranged from 0-3 moths per trap from April 16-22, which compares to 0-2 per trap in the previous week. No major flight has been documented as of April 22.

POTATO LEAFHOPPER: Migrants were found in Dane and Richland counties on April 13, although counts were very low. The highest number which could be obtained was 2 per 50 sweeps. Based on the infrequency with which leafhoppers have been swept thus far, it appears that a few early individuals are distributed over a limited number of counties for now.

GYPSY MOTH: Larvae began emerging from overwintered eggs on April 9 in Beloit and April 12 in Madison, approximately two weeks earlier than in 2009. This is one of earliest emergence dates on record for Wisconsin. Late April is an appropriate time to place sticky barrier bands on trees to prevent the larvae from moving into the

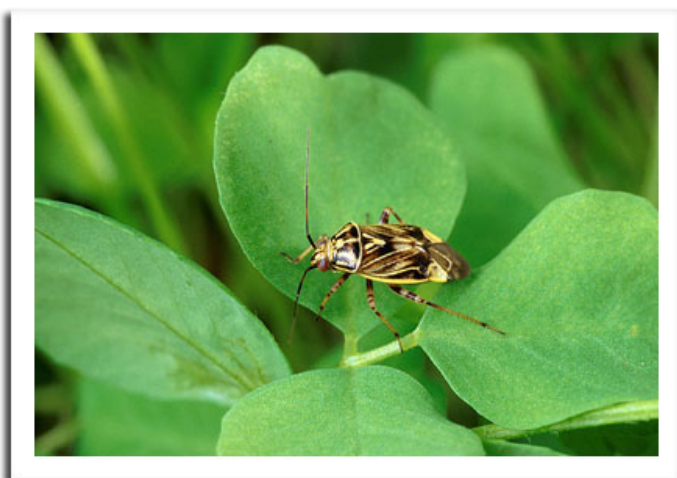
canopy to feed. Property owners considering insecticide treatments should consult with an arborist or tree service in the immediate future. The Wisconsin Cooperative Gypsy Moth Program expects to begin aerial applications by early May in the south.

EASTERN TENT CATERPILLAR: The first larvae and small tents were observed in Rock County on April 9. Since that time, the caterpillars have been reported on apple, crabapple and wild cherry trees as far north as Chippewa and Oconto counties. Tents are expanding rapidly and currently measure 4-8 inches long. Controls initiated by next week will prove most effective.

OAK WILT: The unusually warm spring weather has been conducive to early growth of fungal mats and activity by the insect vectors of oak wilt. It is strongly recommended that residents do not prune or injure oak trees from now through the end of the growing season in areas where the disease is established.

FORAGES

TARNISHED PLANT BUG: Surveys conducted in the southern and west-central districts found low counts ranging from 1-5 per 50 sweeps, with an average of 2 per 50 sweeps.



Tarnished plant bug

Scott Bauer USDA ARS www.ipmimages.org

ALFALFA WEEVIL: Alfalfa surveyed in Dane, Iowa, La Crosse and Richland counties contained very low numbers of adults, fewer than 3 per 50 sweeps. The degree day accumulation above sine base 48°F is such that the Beloit area of Rock County can expect to see the first larvae by April 30.

DEGREE DAYS JANUARY 1 - APRIL 22

LOCATION	50°F	2009	NORM	48°F	40°F
Dubuque, IA	256	93	—	247	519
Lone Rock	247	90	—	225	497
Beloit	273	95	—	249	529
Madison	225	78	142	208	467
Sullivan	242	87	129	210	478
Juneau	215	75	—	191	446
Waukesha	194	77	—	172	414
Hartford	181	70	—	169	411
Racine	165	62	—	163	383
Milwaukee	158	60	106	154	377
Appleton	180	57	91	170	408
Green Bay	138	47	88	133	354
Big Flats	219	77	—	191	448
Hancock	217	71	130	190	444
Port Edwards	209	70	118	185	436
La Crosse	243	95	146	223	493
Eau Claire	220	85	115	200	458
Cumberland	200	80	96	170	420
Bayfield	122	33	57	100	306
Wausau	183	55	89	160	400
Medford	189	62	69	166	411
Crivitz	142	48	—	128	356
Crandon	158	47	69	132	364

Method: ModifiedB50; Sine48; ModifiedB40 as of Jan 1, 2010. NORMALS based on 30-year average daily temps, 1971-2001.

PEA APHID: Populations in alfalfa are low in most areas. Counts rarely exceed 6 per 50 sweeps, except in Dane County where surveys found 18-20 per 50 sweeps in a few fields checked.

POTATO LEAFHOPPER: The first appearance of this insect was noted on April 13 in Dane and Richland counties. Further sweeping in the southern and west-central areas this week detected 1-2 adults per 50 sweeps in scattered fields as far north as Vernon County.

CORN

EUROPEAN CORN BORER: Populations are at historic lows and the overwintered generation of larvae should produce an extremely small flight of moths next month. This prediction is based upon sampling of 229 corn fields last fall which found the state average number of larvae to be only 0.06 per plant (6 per 100 plants). With the

exception of the years 1965 and 1998, this is the lowest population documented since annual surveys began in 1942.

CORN ROOTWORM: Beetle surveys conducted last summer indicate lower populations for 2010. Less than 23% of the corn fields sampled in August had counts that met the treatment criteria of 0.75 or more beetle per plant, and population declines were charted in every district. Despite this favorable forecast, high concentrations of larvae may occur in individual fields unless effective management practices are applied.

BLACK CUTWORM: Pheromone traps have been installed thus far at 14 sites in Columbia, Dane, Dodge, Jefferson and Rock counties. Results of this trapping during the period of April 16-22 are as follows: Clyman 0, Columbus 0, Calamus 1, Hoopers Mill 1, Janesville 2, Johnson Creek 1, Juneau 0, Lake Mills 0, Madison 1, Morrisonville 3, Mud Lake 1, Otsego 0, Sun Prairie 2, and Watertown 0.



Black cutworm moth

Chris Steeman www.azoresbioportal.angra

SOYBEANS

TROCHANTER MEALYBUG: Soybean growers are advised to be alert for this newly recognized, potential pest in 2010. To date, infestations have been verified from soybean fields in Indiana, Iowa, Kentucky and Ohio, and pest management specialists believe it is present in many other states. The small, whitish root-feeding insect was first identified in 2008 in association with soybeans exhibiting potassium deficiency-like symptoms. It remains unclear if the mealybugs are a direct cause of the symptoms or if their feeding is coincidental. Soybean

fields that develop severely yellowed, stunted plants later this summer may be infested and should be diagnosed by collecting a root sample. A hand lens will be necessary to adequately identify the insect.



Symptoms associated with trochanter mealybug

www.ohio4h.org jpg

FRUITS

PLUM CURCULIO: Unusual warmth this spring may stimulate the early migration of adults into apple orchards. Last year the first significant activity was not observed until May 20-22, but both insect and plant development are progressing much more rapidly this season. Pyramid and screen traps used to monitor this pest should be set near orchard perimeters in the near future and checked weekly during the migration period.

REDBANDED LEAFROLLER: Moderate-heavy flights of moths were registered between April 8 and 22 from Kenosha County in the southeast to Chippewa County in the northwest. This corresponds with the phenology model for this species, which predicts peak emergence of first brood adults at 106-160 degree days (base 50°F). High counts for the week were 153 moths at Mineral Point and 147 at Brodhead and Deerfield.

GRAPE FLEA BEETLE: Spring migration into vineyards from nearby wooded areas and fencerows is underway. Biweekly scouting is advisable, starting at bud swell and continuing until the first leaf is separated from shoot-tip. Feeding by the overwintered adults may damage primary buds at this time of year, preventing shoot expansion and ultimately decreasing grape yields. Plants on the margins of vineyards are at greatest risk of infestation. Treatment is justified if more than 5% of buds are damaged.

CODLING MOTH: Pheromone traps should be in place to capture the first spring moths, expected to appear any time at locations where 201-340 degree days (base 50°F) have been surpassed. This includes the southern and central counties. Daily trap checks are recommended after the moth appears and until biofix is established.

SPOTTED TENTIFORM LEAFMINER: First brood adults have been reported from the southern counties for three or more weeks and peak emergence has already occurred at some sites. The optimal sample period for first generation sapfeeder larvae begins 7-10 days after the peak trap count is registered.

VEGETABLES

IMPORTED CABBAGEWORM: Adult emergence began by April 11 and spring egg deposition is now underway on cruciferous weeds and cole crops. If an unusually high number of the pale yellow butterflies are noticed around home gardens or field plantings of broccoli, Brussels sprouts, cabbage, cauliflower, kale or radishes, it may be advantageous to examine the plants for the yellow, oblong eggs and velvety green larvae. *Bacillus thuringiensis* (Bt) applied while the larvae are very small provides effective control, although serious infestations at this time of year are infrequent.



Imported cabbageworm butterfly Kim Davis & Mike Strangeland 2005

FLEA BEETLES: Early-planted and transplanted leafy vegetables should be inspected every 1-2 days for these small, shiny black beetles. Treatment may be required since flea beetles can cause severe injury if allowed to feed on young, unprotected seedlings. Adjusting planting

dates to avoid damage, enclosing seed beds with floating row covers, and removing weed hosts are a few strategies that may reduce or delay flea beetle invasion of spring crops.

COMMON ASPARAGUS BEETLE: The phenology model available for this insect forecasts the first appearance of adults from 150-240 degree days (base 50°F). The upper range of this threshold was surpassed by April 22 at several southern Wisconsin locations.



Common asparagus beetle

Jan Hendrickx www.insectfotos.nl

WEEDS

CREEPING CHARLIE: This persistent broadleaf lawn weed has begun to flower in Dane County and throughout southern Wisconsin. Spring is an optimal time to weed or treat creeping charlie, especially in April and early May while plants are in full bloom and very responsive to herbicide.

GARLIC MUSTARD: Second-year plants are in bloom in the southern and central counties. Mechanical control measures such as hand-pulling or cutting flower stalks at the ground level may be implemented at this time, just as plants are flowering and prior to seed set. Pulled plants should be bagged and disposed of to prevent further seed dispersal. Composting is not recommended since most compost piles do not generate sufficient heat to destroy all seeds.

NURSERY & LANDSCAPE

BIRCH LEAFMINER: New expanding birch leaves should be closely examined for the translucent blotch mines

indicative of leafminer attack. Timely chemical control is key to suppressing damage. Birch trees with recurrent problems should be treated early in spring, before any leaf discolorations appear. After the mines are apparent, damage may be reduced by treating young larvae during their initial feeding stages.

WHITE PINE BLISTER RUST: Yellow-orange blisters (aecia) have begun to rupture the infected bark of eastern white pines. This event corresponds phenologically with leafing out of the alternate hosts currants and gooseberries. Pruning infected branches and eradicating susceptible Ribes plants from within 900 feet of white pines will decrease its spread since the alternation of host plants is required for perpetuation of the fungus.



White pine blister rust

www.extension.umn.edu

CONIFER ROOT APHID: Christmas tree growers should be alert for this pest when transplanting young Fraser firs into fields with a previous fir crop, particularly in the north where the prolonged drought has made establishing transplants very difficult. The large, white aphids should be noticeable on the roots of infested firs as they are lifted for planting this spring. Field symptoms include shoot tip discoloration and stunting of new growth. In some instances, a preventative root dip prior to planting may be justified.

WHITE PINE WEEVIL: Early signs of oviposition should be evident on the terminal shoots of spruce and white pine. Since treatments are most effective prior to egg hatch (before larvae tunnel into the shoots), growers are urged to closely inspect their trees in the next week or two. In areas where the treatment interval has passed, removal of wilted leaders should be planned for June or July. Adult white pine weevils are one of the earliest

pests to resume activity each spring, requiring just 7-58 degree days before emerging from overwintering sites.



Norway spruce with white pine weevil injury

Konnie Jerabek DATCP

BALSAM TWIG APHID: Egg hatch is expected to begin shortly in northern Wisconsin, just prior to budbreak. Damage could be more pronounced this year unless heavy rains occur and reduce nymph populations.

SHORE FLIES: These small, black flies were found during standard inspections of greenhouses in Brown and Kewaunee counties. The adults and larvae feed on algae, not cultivated plants, and are common in nurseries, greenhouses and other damp settings. Yellow sticky traps can be used to lessen their numbers.

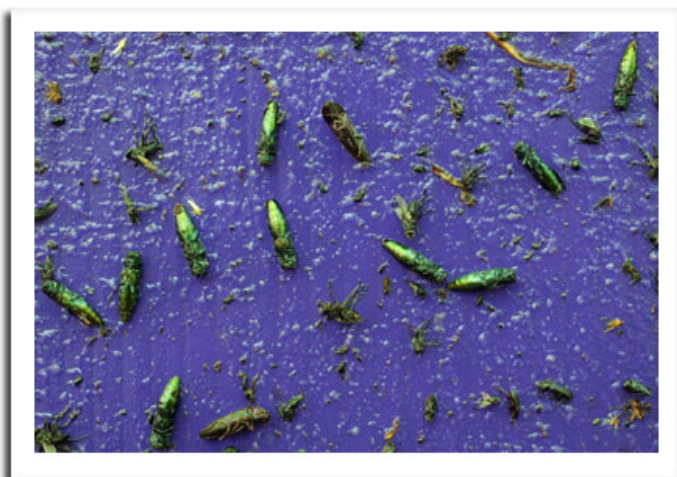
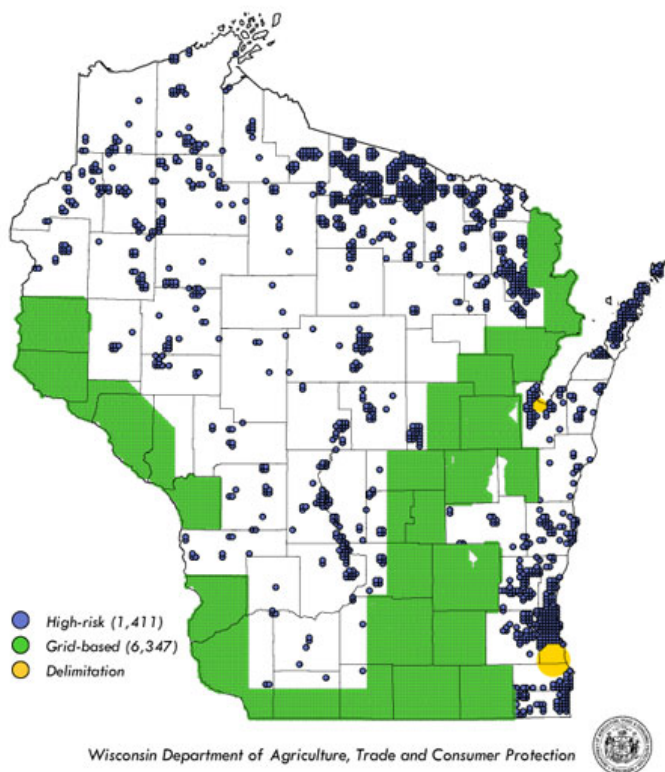
POWDERY MILDEW: Moderate amounts were noted on lupine and columbine at an Eau Claire County greenhouse. The symptoms of this fungal disease are well described by the name powdery mildew. Reducing humidity levels and spacing plants to increase air flow is advised since the spores are air-disseminated and spread rapidly under humid conditions. Infected leaves and debris should be removed and destroyed.

FOREST

EMERALD ASH BORER: Using grid-based, risk-based and delimitation survey strategies, about 8,700 purple panel traps will be deployed in 71 counties this year as part of an expanded emerald ash borer trapping program. The objective of the grid-based strategy is to monitor known infestations, while the risk-based technique targets high-risk sites such as campgrounds and sawmills to detect unknown populations. Panel traps will be in use from

May-September. The accompanying map shows the proposed trap locations and densities.

2010 Emerald Ash Borer Trapping Survey



Emerald ash borers on panel trap Bob Klips www.bobklips.com

GYPSY MOTH: The western half of the state will be trapped systematically by DATCP seasonal workers again this year. Low density (1 trap per 9 sq. miles) and medium density (1 trap per sq. mile) trapping is proposed for the 45 western counties beginning in mid-May. DATCP also plans to trap 169 selected sites at a high density of 4 or 9 traps per sq. mile to evaluate the effectiveness of previous treatments and/or delineate

infestation boundaries. Trapping will not be conducted in the generally infested eastern counties. Gypsy Moth Program specialists are forecasting higher populations for Wisconsin in 2010, citing both mild winter temperatures and large numbers of egg masses last fall as factors contributing to their potential increase this year.



Gypsy moth delta trap www.fs.fed.us

BEECH BARK DISEASE: This disease of American beech was identified for the first time in Wisconsin last August. Samples of the beech scale and *Nectria* fungi were collected by DNR forest pathologists from a rural forested area of Door County and confirmed by USDA ARS taxonomists. Surveys conducted in the northeast in subsequent months have documented a light infestation of the scale over much of Door County and at sites in Kewaunee and Marinette counties. Populations appear to be heaviest near Sturgeon Bay and some beech mortality has been observed.

TRAPPING NETWORKS

BLACK LIGHT TRAPS: Numbers of moths in black light traps have been relatively low this month. The first black cutworm and true armyworm adults were reported in the trap at Janesville on the evening of April 13, and a few have been caught rather sporadically since then. The principal factor influencing their counts at this time of year is the frequency of southerly wind events that carry migrants into the state.

Network cooperators should place traps by Thursday, April 29 to monitor the early migration of these pests, as well as the start of the spring flight of European corn borer moths.

APPLE INSECT TRAP COUNTS APRIL 16 - 22

COUNTY	DATE	SITE	STLM ¹	RBLR ²	CM ³	OBLR ⁴	OBLR ⁵	AM RED ⁶	AM YELLOW ⁷
Bayfield	4/16-4/22	Keystone	3	39					
Bayfield	4/16-4/22	Bayfield	—	—					
Bayfield	4/16-4/22	Oriente	4	0					
Brown	4/16-4/22	Oneida	415	52					
Chippewa	4/16-4/22	Chippewa Falls 1	44	35					
Chippewa	4/16-4/22	Chippewa Falls 2	—	—					
Dane	4/15-4/22	Deerfield	542	147					
Dane	4/16-4/22	McFarland	—	—					
Dane	4/15-4/21	Stoughton	47	114					
Dane	4/16-4/22	West Madison	—	—					
Dodge	4/16-4/21	Brownsville	27	110					
Fond du Lac	4/16-4/22	Campbellsport	550	73					
Fond du Lac	4/16-4/22	Malone	350	20					
Fond du Lac	4/15-4/22	Rosendale	76	18					
Grant	4/16-4/22	Sinsinawa	19	97	3?				
Green	4/16-4/22	Brodhead	52	147					
Iowa	4/16-4/22	Dodgeville	675	77					
Iowa	4/16-4/22	Mineral Point	27	153					
Jackson	4/16-4/22	Hixton	120	66					
Kenosha	4/16-4/22	Burlington	160	55					
Marinette	4/16-4/22	Niagara	—	—					
Marquette	4/12-4/19	Montello	456	15					
Ozaukee	4/14-4/22	Mequon	58	74					
Pierce	4/15-4/21	Beldenville	380	26					
Pierce	4/15-4/22	Spring Valley	102	196					
Racine	4/16-4/22	Raymond	—	—					
Racine	4/15-4/22	Rochester	860	95					
Richland	4/15-4/19	Hillpoint	480	93					
Sheboygan	4/15-4/22	Plymouth	156	72					
Walworth	4/16-4/22	East Troy	20	15					
Walworth	4/16-4/22	Elkhorn	50	85					
Waukesha	4/16-4/22	New Berlin	—	—					

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.