

# 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

Rain and snow fell over much of the state early in the week, curtailing fieldwork in the south and prompting a winter weather advisory for the northern counties. Snow accumulations of 10-12 inches were reported from Vilas County on April 20, while Rhinelander in Oneida County received a record-setting 7 inches. Mild, windy conditions returned by Thursday, drying fields and allowing planting to resume. Relatively dry field conditions this spring have enabled tillage operations and oat planting to proceed at a rapid rate. Producers have planted 35% of their oat acreage, which is well above the 2% planted at this time last season and the 5-year average of 25%. Conditions, for the most part, have been too cold for significant insect activity. The degree day accumulation above modified base 50°F since January 1 was 86 at Madison as of April 23. This compares to 94 on the same date last year and a normal accumulation of 148.

## LOOKING AHEAD

**BLACK CUTWORM:** The installation of traps was completed by late March at select locations in the southwest and east-central counties. Thirty-four moths in 26 pheromone traps have been reported since the earliest migrants were registered in Rock County on March 25. The first sustained capture of 9 moths in 2

nights may occur in the next week if prevailing southerly air currents direct more migrants into the state.

**ALFALFA WEEVIL:** Although adults could not be found this week, the spring emergence of alfalfa weevils is expected to begin over the weekend in advanced southern areas of Wisconsin, with the first larvae appearing in sweep nets by May 7.

**EASTERN TENT CATERPILLAR:** Tents constructed by the larvae of this pest should soon be conspicuous on wild cherry, apple, flowering crabapple and other hosts in the southern counties. The first emergence of larvae from overwintered egg cases was noted on April 22 in Sauk County. Control is best achieved while larvae and tents are still small.

**WINTER CUTWORM:** Reports suggest the incidence of this exotic pest is much higher than in previous years. Signs of infestation should become apparent in alfalfa and small grains within in the next 1-2 weeks. It is speculated that the east-central, northeast and north-central portions of the state are at greatest risk for larval outbreaks.

**PEA APHID:** Egg hatch was noted on April 22 in Rock County where nymphs were swept at the rate of 2 per 100 sweeps. Nymphs were also detected in Columbia,

Dane and Sauk County alfalfa this week in insignificant numbers.

## ALERTS

**WINTER CUTWORM:** Alfalfa and small grains growers should be aware of the possibility of problems in localized fields throughout the state this spring. Reports have been received from various parts of Wisconsin where large numbers of these worms were observed invading homes in December and advancing over the snow in February, according to UW-Extension Entomologist Phil Pellitteri. Of greatest concern is the threat to alfalfa and small grains, especially winter wheat, but infestations may affect gardens, lawns, grasses, clover and many other crops. Specific counties in which there are indicators for larval feeding are: Brown, Calumet, Columbia, Dane, Door, Jefferson, La Crosse, Manitowoc, Marathon, Oconto, Oneida, Outagamie, Sheboygan, Waushara, Winnebago and Wood.



Winter cutworm larva

Tony DiTerlizzi bugguide.net

Winter cutworm, the larval stage of the greater yellow underwing moth, *Noctua pronuba*, derives its common name from its tolerance to cold temperatures. Larvae of this exotic European species are active on warm winter days and grow to a length of 2½-3 inches. The adult form is a large moth with a 3-inch wingspan and orange-yellow hindwings.

Although winter cutworm has not been present in Wisconsin in numbers sufficient to cause alarm, serious potential for larval feeding exists in the east-central, central, northeast and north-central parts of the state this

## DEGREE DAYS JANUARY 1 - APRIL 23

LOCATION	50°F	2008	NORM	48°F	40°F
Dubuque, IA	103	100	—	86	296
Lone Rock	100	96	—	80	274
Beloit	104	126	—	84	290
Madison	86	94	148	69	242
Sullivan	95	118	135	76	266
Juneau	81	105	—	66	232
Waukesha	83	99	—	68	241
Hartford	75	93	—	62	219
Racine	66	80	—	54	200
Milwaukee	64	76	110	54	198
Appleton	58	80	96	48	171
Green Bay	47	64	93	40	147
Big Flats	85	89	—	66	223
Hancock	78	92	137	59	205
Port Edwards	77	85	124	61	202
La Crosse	108	86	153	89	277
Eau Claire	97	78	121	81	245
Cumberland	93	69	102	78	227
Bayfield	39	35	61	31	127
Wausau	60	73	95	46	161
Medford	68	62	73	60	181
Crivitz	48	64	—	38	139
Crandon	48	59	74	36	197

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

April and early May. Scouting fields in the next week is strongly advised. The University of Wisconsin-Extension recommends treatment for infestations of three or more larvae per square foot.



Winter cutworm moth, *Noctua pronuba*

Willem 54 11-29-08

## FORAGES

**ALFALFA WEEVIL:** No adults were noted in any alfalfa field surveyed as of April 23. Larvae should start to appear in sweep nets by early May, particularly in the southern counties. Damage to first crop alfalfa may be averted next month by initiating scouting efforts at 300 degree days (sine base 48°F), cutting or treating fields when tip feeding exceeds the economic threshold of 40%, and maintaining a flexible cutting schedule. Consult the 48°F column in the degree day table listed on the second page of each issue to anticipate egg hatch and larval development this spring. Degree day accumulations through April 23 were as follows: Beloit 84, Eau Claire 81, La Crosse 89, Madison 69, Milwaukee 54, and Wausau 60.

**ALFALFA WINTER INJURY:** Alfalfa and winter wheat fields in southern Wisconsin have begun to show evidence of winter injury, according to recent surveys and observations made by UW-Madison agronomists. Inadequate snow cover and exposure to extremely cold temperatures in December and January caused freezing damage to cells in the roots, killing large portions of scattered fields. Seven counties checked in the past week—Dane, Columbia, Grant, Iowa, Monroe, Rock and Sauk—were found to have suffered some degree of winterkill. It is still too early to assess the extent of injury in the central and northern areas.

**ENGLISH GRAIN APHID:** Migrants were detected in very low numbers in grain fields, ranging from 3 per 100 sweeps in Rock County to 1 per 100 sweeps in the Richland Center area. None were found in the other fields surveyed in the south-central and southwest counties.

## CORN

**CORN FLEA BEETLE:** Mortality of this insect due to severe winter temperatures presumably was high, indicating a negligible risk of Stewart's wilt for most of Wisconsin this season. Analysis of air temperature data from 19 localities showed that mean monthly temperatures fell below 24°F all three winter months (December, January and February) at 16 of 19 sites assessed (see accompanying table). The Iowa State University Model to the right predicts high corn flea beetle mortality and a

## STEWART'S WILT FORECAST 2009

COUNTY	DEC	JAN	FEB	>24F	<sup>1</sup> IOWA	<sup>2</sup> ESKER
<b>SOUTH</b>						
Columbia	16.3	9.6	23.6	0	Neg	No
Dane	17.0	10.2	23.6	0	Neg	No
Grant	16.6	9.3	23.9	0	Neg	No
Green	16.8	10.5	23.5	0	Neg	No
Kenosha	23.1	14.8	27.0	1	Low	No
Milwaukee	22.4	15.8	27.1	1	Low	No
Rock	19.1	12.1	24.7	1	Low	No
Sauk	15.7	9.1	22.8	0	Neg	No
Waukesha	18.7	11.7	23.9	0	Neg	No
<b>CENTRAL</b>						
Brown	15.0	7.5	21.4	0	Neg	No
Eau Claire	11.6	5.3	19.3	0	Neg	No
La Crosse	14.1	8.8	22.8	0	Neg	No
Manitowoc	17.4	12.2	24.0	0	Neg	No
Wood	11.6	6.0	20.5	0	Neg	No
<b>NORTH</b>						
Douglas	7.9	-1.0	15.4	0	Neg	No
Florence	11.4	4.9	17.2	0	Neg	No
Langlade	10.6	3.3	17.1	0	Neg	No
Marathon	11.5	5.8	19.1	0	Neg	No
Oneida	11.1	4.4	16.8	0	Neg	No

<sup>1</sup>Iowa State Model predicts disease prevalence or occurrence.  
<sup>2</sup>Esker Model predicts disease risk probability. A threshold probability of 60% defines if the risk is "yes" or "no".

**NEGLECTIBLE** risk of Stewart's wilt for areas in which the mean monthly temperature falls below 24°F for all three winter months, and a **LOW TO MODERATE** risk for southern locations such as Beloit, Kenosha and Milwaukee where the mean temperature was below the 24°F threshold for two of the three months.

### IOWA STATE MEAN MONTHLY TEMPERATURE MODEL (Forecasts the prevalence of Stewart's wilt)

MONTHS >24°F	PREDICTED RISK
0	Negligible
1	Low to moderate
2	Moderate to high
3	High

A modified Stewart's wilt prediction method recently developed by UW-Madison Plant Pathologist Paul Esker integrates prevalence data from the previous year along with mean monthly winter air temperatures to obtain the probability of risk. In 2008, the disease was identified in



only 2 of 84 fields inspected (both in Rock County), indicating a very low prevalence. Based on an economic analysis, Esker determined that a threshold probability of 60% defined if the risk was "yes" or "no". Both models performed similarly, the Iowa State Model predicting a negligible risk of Stewart's wilt for the 19 sites, and the Esker Method predicting "no" risk for much of Wisconsin in 2009.

**BLACK CUTWORM:** Migrant adults were detected in the state at Janesville in Rock County on March 25, which is two weeks earlier than in 2008. Numbers have not increased appreciably since their appearance last month. Counts ranged no higher than 2 moths per trap from March 26-April 23 at the Janesville site and at 26 southwestern and central locations where traps were installed several weeks ago. Projected cutting dates will be formulated once the first concentrated capture of 9 or more moths in 2 nights is documented. Larvae require 300 degree days (base 50°F) beyond a concentrated capture to grow large enough to sever corn seedlings.



Black cutworm moth

Tim Faasen [www.wildphoto.nl](http://www.wildphoto.nl)

## SOYBEANS

**SOYBEAN CYST NEMATODE:** The UW-Madison Agronomy Department in cooperation with the Wisconsin Soybean Marketing Board is again offering free soybean cyst nematode soil testing. Soil sample test kits are available now and can be requested from Colleen Smith at [clsmith8@wisc.edu](mailto:clsmith8@wisc.edu) or at (608) 262-7702.

**PHYTOPHTHORA ROOT ROT:** A survey of root rot diseases was conducted in 50 Wisconsin soybean fields last spring in response to flooding and unusually wet

weather conditions. From June 23-July 7, 2008, randomly selected fields were examined for plants exhibiting symptoms such as wilting, chlorosis or stem lesions. Samples were collected and later tested at the Plant Industry Laboratory for *Phytophthora sojae* and other early-season fungal pathogens.

Infection rates among soybean roots with *P. sojae* were higher than preliminary morphological testing data indicated in 2008. Diagnoses based on culture and morphology initially yielded 4 positive sites, but follow-up molecular testing of DNA from soybean root tissues revealed 7 additional positive samples, bringing the total percentage of samples infected with *P. sojae* from 8% to 20%. These results imply that *P. sojae* infected declining plants in roughly 1/5 of the 50 soybean fields surveyed last spring. Thus, the incidence of this root rot disease was higher in 2008 than previously thought. Further description and management recommendations may be obtained at the website: <http://www.plantpath.wisc.edu/soyhealth/prr.htm>, available through the UW-Extension.

## FRUITS

**REDBANDED LEAFROLLER:** The first moths of the season were reported near Sinsinawa in Grant County on April 14. Activity has accelerated in the last two weeks, with counts ranging from 0-158 in southern and central orchards. The degree day accumulation is such that the Bayfield area should see moths by May 1.

**SPOTTED TENTIFORM LEAFMINER:** Adults have begun appearing in traps, especially in the southeastern counties. Counts ranged as high as 640 moths per trap in Waukesha County during the April 17-23 reporting period. Peak flight of first brood adults may occur as soon as April 29 near Beloit, May 2 near Madison, April 30 near Eau Claire, and May 6 near Racine. Research indicates that the first moth should have been noted at 9 degree days, the first eggs deposited at 76 degree days, and the peak of the first brood flight at 150 degree days (base 50°F).

**FIREBLIGHT:** Protective fixed copper sprays are advisable at the silver tip stage to suppress this disease. This spray will also serve effectively as the first scab application of the season and it may be mixed with dormant oil for mite and scale insect control. A major risk associated with copper use is that residues present during bloom can

lead to fruit russetting. Therefore, sprays should not be applied after ¼-inch green.

**APPLE SCAB:** The early maturation of spores of the apple scab fungus make the prompt spraying of trees at the green tip stage very critical. Follow the recommendations in the 2009 Midwest Tree Fruit Spray Guide available at <http://www.extension.iastate.edu/Publications/PM1282>.

## WEEDS

**COMMON LAMBSQUARTERS:** Surveys this week found a few ¼ inch tall seedlings had emerged from the soil in Dane and Green Counties. Predictably, development of this species is expected to accelerate with warmer temperatures projected for the week ahead.

**DANDELION:** Rosettes measured 6-8 inches in diameter at locations in south-central and southwest Wisconsin as of April 20, and the yellow composite flowers were noted on south-facing hillsides in Rock County. Dandelions, as homeowners and lawn care experts know well, are one of the earliest perennial weeds to emerge each spring. Removal of below-ground portions of this plant is critical to preventing regrowth. Frequent mowing can reduce dispersal by limiting seed development.

**WILD PARSNIP:** Roadside plants in Iowa County were 2 inches tall by April 22. This invasive, yellow-flowered weed has become increasingly abundant in Wisconsin, particularly at sites dominated by perennial grasses that are mowed 1-2 times annually. Accurate identification and early detection of infested areas can minimize inadvertent human exposure to the skin irritants in its leaves.

**GIANT RAGWEED:** Emergence was noted in the south-central areas this week. The seedlings of this species are very similar to common ragweed early on, but may be distinguished by the larger cotyledons (3-4x) with green undersides, in contrast to the smaller cotyledons with purplish undersides characteristic of common ragweed. Giant ragweed has an initial competitive advantage over many other weeds and crops due to its early emergence and rapid growth rate. Research that examined giant ragweed competition in corn demonstrated that season-long competition from just 2 plants per 110 square feet can reduce corn yield by 13%.

**COMMON CHICKWEED:** Surveyed fields in the southern counties contained extensive mats of flowering common chickweed. Because this winter annual reproduces by seed, management programs should be initiated prior to seed set to achieve effective control.



Common chickweed

Clarissa Hammond DATCP

## NURSERY & LANDSCAPE

**BLACK ROOT ROT:** Scattered pots of 'Redwing' phlox at greenhouses in Kewaunee County were found to be moderately infected with black root rot, caused by the fungus *Thielaviopsis basicola*. Symptoms include yellowing, stunting and necrosis of the plant due to formation of cankers on the infected roots. This destructive fungal disease is well adapted to survival in greenhouses and can be easily spread by tools, dust, wind, water and potting media. Proper sanitation practices should reduce its occurrence.

**HOSTA VIRUS X:** Inspections this week found a high incidence of this virus on the hosta varieties 'So Sweet' and 'Gold Standard'. Several of the affected plants exhibited classic HVX symptoms, such as mottled leaves and an "ink-bleed" pattern along the leaf veins resulting from pigmentation changes. Others showed small, circular ringspots on the foliage or distorted, puckered leaves. DATCP inspectors require nursery stock infected with this virus to be returned to the supplier or destroyed.

**PSEUDOMONAS WILT:** Seventy five percent of 'Jethro Tull' coreopsis pots at a Kewaunee County greenhouse were infected with Pseudomonas wilt. The principal diagnostic characteristic is gray or tan necrotic tissue that

begins at the leaf tips and eventually spreads throughout entire leaves.

**SHORE FLIES:** A common pest in greenhouses, adult shore flies were observed on several different plant varieties in a Brown County facility. Larvae of this insect feed on the algae that grow on moist soil in potted plants, and between cracks in concrete floors or rocks beneath benches.

## FOREST

**EMERALD ASH BORER:** The USDA Animal and Plant Health Inspection Service (APHIS) confirmed the identification of emerald ash borer in Vernon County on April 6, 2009. Larvae of this invasive, wood-boring beetle were discovered near Victory, a small community along the banks of the Mississippi River, about 20 miles south of La Crosse. State officials were made aware of the infestation by an observant property owner. In response, both Vernon County and neighboring Crawford County were placed under quarantine on April 20. Crawford County is being included in the quarantined area due to the close proximity of the infestation. Vernon County is now the third infested county in Wisconsin, following detections of emerald ash borer in Ozaukee and Washington counties last summer.

**GYPSY MOTH:** The emergence of larvae from overwintered egg masses is expected to begin by the first week of May in southern Wisconsin. This event was noted in Dane County on April 30 last year. Now is the time to place sticky barrier bands on tree trunks to prevent larvae from returning to the tree once they have dispersed on silk threads or have fallen from the tree. Barrier bands can be purchased or constructed using duct tape or another non-porous material. Wrap the band or duct tape around the tree and apply a sticky material such as Tanglefoot, available at lawn and garden centers. Do not apply the adhesive directly to the tree trunk as this may damage the bark. The sticky pest barrier should be reapplied periodically through August, at which time the bands may be removed.

**GYPSY MOTH QUARANTINE:** Populations in Iron and Monroe Counties, Apostle Islands National Lakeshore (island units only), and in the Madeline Island area of Ashland County have increased to threshold levels, prompting the establishment of new quarantine areas.

These locations were recognized as being generally infested by late 2008. A Federal Order designating the quarantine zones was enacted on April 15, 2009 to prevent the human-assisted spread of this destructive insect. It is now illegal to move or transport any wood product or outdoor household articles that have been exposed to gypsy moth from the quarantined areas to a non-quarantined area without prior inspection or certification. Regulated articles which require inspection and certification are: nursery stock, unprocessed logs, Christmas trees, outdoor furniture, and mobile homes.

With the addition of Iron and Monroe, 43 eastern Wisconsin counties—as well as the Apostle Islands National Lakeshore and Madeline Island—now have established populations of gypsy moths and are under state and federal quarantine.

**GYPSY MOTH TRAPPING:** Twenty-nine thousand traps for gypsy moth detection and delimitation will be set in the western half of the state beginning next month. Trapping densities will vary from 1 trap per 9 sq. miles (low density) in the central counties, to 1 trap per sq. mile (medium density) in the western counties, to 4 traps per sq. mile (high density) at 118 delimitation sites within the western counties. The objectives of high density delimitation trapping are to evaluate the effectiveness of previously treated sites or to delineate the boundaries of a potential infestation. No traps will be set in the “generally infested” eastern counties of Wisconsin.

## TRAPPING NETWORKS

**STRIPED CUCUMBER BEETLE:** DATCP survey specialists in cooperation with several vegetable growers are planning to establish a network of yellow sticky traps to monitor the emergence and relative abundance of the striped cucumber beetle this season. Traps will be deployed beginning Thursday, May 14 and checked weekly through August. Persons interested in participating in the network should email Clarissa Hammond at [clarissa.hammond@wisconsin.gov](mailto:clarissa.hammond@wisconsin.gov) or call 1-866-440-7523 before May 8. Please supply your name, address, telephone number, and specify the number of acres of cucurbits and traps to be placed.

## APPLE INSECT TRAP COUNTS APRIL 17 - 23

COUNTY	DATE	SITE	STLM <sup>1</sup>	RBLR <sup>2</sup>	CM <sup>3</sup>	OBLR <sup>4</sup>	AM RED <sup>5</sup>	AM YELLOW <sup>6</sup>
Bayfield	4/17-4/23	Lobermeier	0	0				
Bayfield	4/17-4/23	Port Wing						
Brown	4/17-4/23	Oneida						
Chippewa	4/17-4/23	Chippewa Falls 1						
Chippewa	4/17-4/23	Chippewa Falls 2						
Dane	4/17-4/23	Deerfield						
Dane	4/17-4/23	Stoughton	2	10				
Dane	4/17-4/23	MacFarland						
Dane	4/17-4/23	West Madison						
Dodge	4/17-4/23	Brownsville	92	13				
Fond du Lac	4/17-4/23	Campbellsport 1	54	18				
Fond du Lac	4/17-4/23	Malone	180	10				
Fond du Lac	4/17-4/23	Rosendale						
Grant	4/17-4/23	Sinsinawa	124	54				
Green	4/17-4/23	Brodhead	0	151				
Iowa	4/17-4/23	Dodgeville						
Iowa	4/17-4/23	Mineral Point	30	158				
Kenosha	4/17-4/23	Burlington	9	25				
Jackson	4/17-4/23	Hixton						
Marinette	4/17-4/23	Niagara						
Marquette	4/17-4/23	Montello	360	59				
Ozaukee	4/17-4/23	Mequon						
Pierce	4/17-4/23	Beldenville						
Pierce	4/17-4/23	Spring Valley						
Racine	4/17-4/23	Raymond	550	30				
Racine	4/21-4/23	Rochester	~300	55				
Richland	4/09-4/21	Hillpoint	28	45				
Sheboygan	4/17-4/23	Plymouth						
Waukesha	4/17-4/23	New Berlin	640	2				
Walworth	4/17-4/23	East Troy	0	0				
Walworth	4/17-4/23	Elkhorn	0	0				

<sup>1</sup>Spotted tentiform leafminer; <sup>2</sup>Redbanded leafroller; <sup>3</sup>Codling moth; <sup>4</sup>Obliquebanded leafroller; <sup>5</sup>Apple maggot red ball;  
<sup>\*</sup>Unbaited red ball; <sup>\*\*</sup>Baited red ball; <sup>6</sup>Apple maggot yellow board