

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

Unsettled, showery conditions persisted throughout Wisconsin in the past week, with high temperatures ranging from the mid-50s in the north to the low 70s in the far southeast. Locally heavy rainfall accompanied by strong winds brought surplus moisture, as well as a few migrant insects such as black cutworm moths and the first true armyworm adults, to the southern areas. The northern parts of the state remain extremely dry despite adequate precipitation at other locations. Although the rainy weather limited the number of days suitable for fieldwork, farmers continued to plant alfalfa, oats, peas and potatoes. Corn planting has begun in the southwest and early oats are emerging as far north as Clark County. Alfalfa growth appears highly variable, ranging from 10-12 inches in advanced southern fields to less than 6 inches in the central counties. Comparatively low nighttime temperatures have temporarily slowed development and activity of most insects.

LOOKING AHEAD

BLACK CUTWORM: Significant flights of 9 or more moths in 2 nights have been registered at several pheromone trap sites, and nearly all trap locations have yielded some moths. Strong southwesterly air currents directed large numbers of migrants into the state on the evening of

April 24. High counts of 13 and 27 moths per trap were documented near Barneveld in Iowa County and Belmont in Lafayette County, respectively.

ALFALFA WEEVIL: Surveys indicate that this insect has started to migrate into alfalfa fields. Adults were first noted on April 29 in Green and Lafayette counties, although counts were very low. The highest number of alfalfa weevils which could be obtained was 1 per 100 sweeps. The spring emergence of adults is expected to accelerate in the next week if temperatures increase.

SEEDCORN MAGGOT: Spring weather conditions which delay seed germination and prolong adult emergence, namely low nighttime temperatures and high soil moisture, increase the potential for injury to crops such as beans, corn and cucurbits. Conditions are right for damage to occur this season.

EASTERN TENT CATERPILLAR: Larvae in Iowa, Richland and Sauk counties were in the 2nd instar ($\frac{3}{4}$ inch) as of April 30, and tents measured about 3-4 inches long and 2 inches across. Webbing in wild cherry trees is still small and inconspicuous in most areas. Control efforts in the next 1-2 weeks will prove most effective.

GYPSY MOTH: The first emergence of larvae was noted in Dane County on April 27. According to the BioSim Gypsy Moth Phenology Model, 10% hatch should occur

between May 1 and 8 in the southern half of the state, as far north as Eau Claire County.

FORAGES

ALFALFA WEEVIL: Adults remain very scarce, averaging no more than 1 per 100 sweeps in fields checked this week in Dane, Green, Iowa, Jefferson and Lafayette counties. Temperatures have not been conducive for rapid degree day accumulations, and this has delayed adult emergence and egg deposition. The first larvae from overwintered eggs are unlikely to appear in sweep nets before May 15. Alfalfa weevil degree day accumulations through April 30 were as follows: Beloit 135, Eau Claire 117, La Crosse 128, Madison 107, Milwaukee 87, and Wausau 62. Scouting should be initiated at 300 degree days (sine base 48°F).

TARNISHED PLANT BUG: Counts of adults in alfalfa were low during the last week and varied from 1-7 per 100 sweeps in the southern districts.



Tarnished plant bug

Krista Hamilton DATCP

ALFALFA CATERPILLAR: Larvae measuring ½-1 inch in length were collected from alfalfa in Green and Lafayette counties at the rate of 1-5 per 100 sweeps. Surveys in the adjacent counties found most fields had no detectable populations.

PEA APHID: Eggs hatched on April 22 in Rock County, but numbers remain extremely low. Counts throughout the southern half of the state seldom exceed 5 per 100 sweeps in alfalfa 6-8 inches in height. A very small percentage of the aphids in Dane and Green counties were parasitized.

DEGREE DAYS JANUARY 1 - APRIL 30

LOCATION	50°F	2008	NORM	48°F	40°F
Dubuque, IA	152	132	—	135	397
Lone Rock	144	123	—	121	363
Beloit	153	162	—	135	394
Madison	127	123	199	107	329
Sullivan	141	151	184	122	363
Juneau	122	134	—	104	319
Waukesha	124	127	—	109	332
Hartford	113	119	—	99	303
Racine	102	102	—	89	281
Milwaukee	98	97	143	87	276
Appleton	86	100	140	73	237
Green Bay	71	80	134	62	209
Big Flats	119	112	—	94	294
Hancock	110	115	191	85	274
Port Edwards	107	106	174	86	268
La Crosse	148	110	210	128	362
Eau Claire	136	96	172	117	328
Cumberland	125	82	149	105	297
Bayfield	46	42	89	37	163
Wausau	80	92	140	62	215
Medford	95	77	114	76	243
Crivitz	69	77	—	55	194
Crandon	64	70	116	47	178

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

ENGLISH GRAIN APHID: Winter wheat surveyed in Iowa and Lafayette counties showed 3 aphids per 100 sweeps, while in Green County 2 of the 4 aphids noted per 100 sweeps were the winged form. No aphids were collected by sweeping fields in Dane and Jefferson counties.

CORN

BLACK CUTWORM: Migrants were detected in substantial numbers in pheromone traps on April 24. Counts ranged as high as 27 moths, with concentrated captures of 9 or more moths documented at 5 of 26 southwestern Wisconsin trap sites, including Barneveld, Belmont, Dodgeville, Mt. Horeb and Spring Green. Egg deposition in fields with winter annual weeds should intensify in the next week. Larvae resulting from this flight are expected to begin cutting corn seedlings approximately 300 degree days (base 50°F) from the biofix date of April 24, or by

May 29-June 1 in the southwest district, May 28-June 4 in the south-central district, and May 31-June 2 in the west-central district. Projected cutting intervals are based on current degree day accumulations and are subject to change as temperatures increase.

FRUITS

CODLING MOTH: Phenology models available for this insect forecast the first appearance of moths at 201-340 degree days (base 50°F). The lower range of this threshold is expected to be surpassed in the next week at locations throughout southern Wisconsin. Traps should be placed in apple orchards at the tight cluster stage of bud development and checked 1-2 times per week.

PROTEOTERAS: Pheromone traps with codling moth attractants should be closely inspected for this tortricid, which commonly appears one week in advance of the codling moth. *Proteoteras* is smaller (8 mm) and lacks bronze scales on the tips of the forewings.

SPOTTED TENTIFORM LEAFMINER: First brood adults have been active in the southern counties for three or more weeks, and peak emergence is likely to occur in the next few days at locations where 150 degree days (base 50°F) accumulate. The optimal sample period for first generation sapfeeder larvae begins 7-10 days after a peak capture is registered.



Spotted tentiform leafminer

Charles Baker ukmoths.org.uk

APPLE SCAB: IPM Consultant John Aue reports that apple orchards in the state are showing about 25-30% ascospore maturity. Because fungicides applied in the previous week were compromised by heavy amounts of

rain, a second application may be required for those orchards in which inoculum levels are moderate to high.

CEDAR-APPLE RUST: Galls on eastern red cedar began sporulating last week in the southern counties. Spores released from the galls can infect nearby apple and related trees to continue the lifecycle of this disease. Control measures include eliminating the evergreen host (in instances where this is practical), removing the galls prior to spore horn formation, and selecting resistant apple cultivars.



Cedar-apple rust on juniper

www.sciencemusings.com

REDBANDED LEAFROLLER: Activity was variable during the April 24-30 reporting period, with counts ranging from 0-148 moths. The emergence of adults is underway in all areas of the state except Bayfield County, where the first moths may appear in traps over the weekend.

CRANBERRY REPORT: Rains the past week helped to move frost out of most Wisconsin cranberry beds. Overwintered plants appear to have survived well, with few dead tips or plants and minimal leaf drop reported. Recent bud counts by scouts and growers suggest that the 'Stevens' cultivar wintered particularly well and shows good bud cell potential. By contrast, the 'Ben Lear' variety was noted to have somewhat less flower bud potential at certain locations. The installation of irrigation equipment should begin in the week ahead.

SPANWORM/LOOPER: Scouting sessions for cranberry pests in the spanworm/looper family are scheduled to begin in the next two weeks. Among the first insects to emerge on cranberry marshes are the black spanworm/blueberry looper and the green spanworm, with the

blackheaded fireworm close behind. All of these pests feed on the tender new growth and terminal buds.

WHITE GRUB: June beetle trapping programs have been initiated on those cranberry marshes with a history of white grub infestation. The first adults (*Phyllophaga anxia*) are anticipated in traps by mid-May.



June beetle, *Phyllophaga* sp.

Stephen Cresswell

VEGETABLES

SEEDCORN MAGGOT: As temperature accumulations approach 392 degree days (base 39°F), peak emergence of first generation flies and heavy egg laying in susceptible crops should be expected. Delaying planting until a majority of the population has pupated, for an additional 446 degree days (beyond the initial 392 degree days), will ensure that a majority of the population is in the non-feeding pupal stage and can no longer damage plants. Seedcorn maggot degree day accumulations through April 30 were: Eau Claire 255, La Crosse 368, Madison 296, Milwaukee 287, Green Bay 201, and Wausau 194 (simple base 39°F).

WEEDS

GIANT RAGWEED: This annual broadleaf weed was the predominant species observed in no-till fields in Dane, Iowa, Sauk and Richland counties as of April 28. Densities ranged 1-200 per m², with the heaviest growth occurring near field margins. The seedlings evident in no-till fields this spring are reflective of last season's failed management efforts. Because giant ragweed emergence occurs over an extended time period, repeated herbicide

treatments may be required to achieve full control. Making note of problem areas with dense ragweed growth can help to direct future management decisions.

COMMON LAMBSQUARTERS: Seedlings appeared to be more prevalent in the southwest than in other areas surveyed. The average density in Iowa, Richland and Sauk counties was 10 plants per m², although localized areas within some of the fields checked contained more than 100 seedlings per m². Plants were about 1 inch tall. Development and abundance of this species should be monitored in the upcoming weeks as agronomic crops begin to emerge and the critical period of weed control approaches.

CREEPING CHARLIE: This relentless broadleaf lawn weed has begun to flower in Dane County, and presumably throughout much of southern Wisconsin. Spring is an optimal time to weed or treat creeping Charlie, especially in April and early May when plants are in full bloom and most susceptible to herbicides. At current temperatures, full bloom should begin by May 4 in the south, May 7 in the central areas, and May 13 in the north (200-350 degree days (base 50°F)).

Due to its low growing mat of rooted horizontal stems, creeping Charlie requires special manual weeding methods. Hand weeding or raking may be effective for small problem areas, and should be done when the soil is moist (as the tiny rootlets lift more easily from the ground). For larger areas, broadleaf weed killers applied at full bloom seem the best approach for satisfactory control.



Creeping Charlie

Liz Meils DATCP

HORSEWEED: Surveys of no-till fields in the southwest and south-central districts found the average height of seedlings was 4 inches on April 29. Densities were moderate, averaging 5 plants per m². Horseweed acts as a winter or summer annual and reproduces by wind-dispersed seed. Measures which inhibit seed development are the most effective form of control.

FOREST

GYPSY MOTH: Emergence of larvae from egg masses began in Madison on April 27, which is three days earlier than in 2008. Aerial treatments of *Bacillus thuringiensis* (Bt) will be applied when 20% of larvae have reached the 2nd instar stage, an event tentatively projected for May 15-22 in southern Wisconsin. Phenological indicators such as oak leaf development, saucer cup magnolia petal drop, redbud beginning bloom, and various models are used annually to time the start of aerial spray applications.



Gypsy moth 1st instar larvae

DATCP Gypsy Moth Program

NURSERY & LANDSCAPE

LEAF SCORCH: Inspectors observed leaf scorch symptoms on an assortment of nursery plants in the past week. Leaf scorch is characterized by browning of the leaf margins and yellowing or darkening of tissues between the primary leaf veins. This physiological disorder develops when plants are stressed due to transplanting, soil compaction, nutrient deficiency, drought conditions or inadequate space for root growth. Symptomatic plants typically recover once the variable causing stress is resolved.

DAYLILY LEAF STREAK: Several daylily cultivars in a Rock County nursery were infected with this foliar disease. Symptoms include yellowing along the central leaf vein followed by browning, and reddish-brown spots on the leaves. Minimizing overhead watering and avoiding working among plants when the leaves are wet should reduce its incidence.



Daylily leaf streak

Liz Meils DATCP

HOSTA VIRUS X (HVX): The hosta varieties 'So Sweet', 'August Moon', 'Royal Standard' and 'Krossa Regal' were found to be infected with this virus at nurseries in Eau Claire County. Hosta Virus X (HVX) has become one of the most common disorders affecting hostas sold at Wisconsin nurseries and greenhouses. Nursery stock dealers are urged to reject plants showing symptoms consistent with HVX, including mottled, crinkled, deformed or abnormally streaked leaves.

POWDERY MILDEW: This fungal disease was found in light to moderate amounts on sweet pea and meadow sage plants in Rock County. The affected foliage appeared to have a white or light-gray, powdery mold growth. Spacing plants to reduce humidity levels and increase air flow is the most practical control measure. Infected leaves and debris should be removed and destroyed.

TRAPPING NETWORKS

TRUE ARMYWORM: Unusually warm weather and high winds on the night of April 24 brought this migrant species into the state. The first true armyworm moths were captured at Janesville in Rock County on April 13, and 18 more have been caught sporadically since then.

APPLE INSECT & BLACK LIGHT TRAP COUNTS APRIL 24 - 30

COUNTY	DATE	SITE	STLM ¹	RBLR ²	CM ³	OBLR ⁴	AM RED ⁵	AM YELLOW ⁶
Bayfield	4/24-4/30	Keystone	0	0				
Bayfield	4/24-4/30	Port Wing	—	—				
Brown	4/24-4/30	Oneida	600	59				
Chippewa	4/24-4/30	Chippewa Falls 1	—	—				
Chippewa	4/24-4/30	Chippewa Falls 2	—	—				
Crawford	4/24-4/30	Gays Mills	—	—				
Dane	4/24-4/30	Deerfield	737	41				
Dane	4/24-4/30	Stoughton	29	147				
Dane	4/24-4/30	MacFarland	—	—				
Dane	4/24-4/30	West Madison	—	—				
Dodge	4/24-4/30	Brownsville	274	48				
Fond du Lac	4/24-4/30	Campbellsport	35	25				
Fond du Lac	4/24-4/29	Malone	630	19				
Fond du Lac	4/24-4/30	Rosendale	—	—				
Grant	4/24-4/30	Sinsinawa	23	13				
Green	4/24-4/30	Brodhead	—	—				
Iowa	4/24-4/30	Dodgeville	—	—				
Iowa	4/24-4/30	Mineral Point	28	148				
Jackson	4/24-4/30	Hixton	276	28				
Kenosha	4/24-4/30	Burlington	50	89				
Marinette	4/24-4/30	Niagara	—	—				
Marquette	4/24-4/30	Montello	96	7				
Ozaukee	4/24-4/30	Mequon	—	—				
Pierce	4/24-4/30	Beldenville	35	4				
Pierce	4/23-4/30	Spring Valley	0	2				
Racine	4/24-4/30	Raymond	566	27				
Racine	4/23-4/30	Rochester	1520	140				
Richland	4/22-4/28	Hillpoint	35	63				
Sheboygan	4/24-4/30	Plymouth	0	41				
Waukesha	4/24-4/30	New Berlin	179	10				
Walworth	4/24-4/30	East Troy	4	10				
Walworth	4/24-4/30	Elkhorn	9	26				

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