

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

An unsettled weather pattern persisted during the week as low pressure remained stalled over the upper Midwest. Southerly breezes prevailed across much of the state and conditions were warm and humid, with high temperatures 5-10 degrees above seasonal normals until Thursday. Scattered showers and thunderstorms occurred intermittently throughout the week and interrupted fieldwork planting efforts statewide. A few of the storms on May 19 were severe, with large hail and 70 mph wind gusts along a line extending from Brodhead to South Beloit and near Poplar Grove in Green and Rock counties. Damage to crops from wind and hail was reported from Grant County in the southwest to Marquette County in the central area. Showers lingered until drier and cooler air arrived late in the week. Warm temperatures accelerated insect development, resulting in increased alfalfa weevil pressure in portions of southern Wisconsin.

LOOKING AHEAD

BLACK CUTWORM: The primary damage period is expected to begin in southern Wisconsin by May 28, or 300 degree days after the first significant capture of moths on May 7. Near Janesville in Rock County, 213 degree days (base 50°F) have accumulated since the

first major flight was documented. Larvae are less advanced in central and northern Wisconsin where the start of cutting period is predicted for June 3. Routine scouting is recommended from emergence through the four-leaf stage (V4).

ALFALFA WEEVIL: Larval populations and leaf tip damage have exceeded economic levels in a few southwestern alfalfa fields, although surveys show considerable variation in weevil pressure. Most fields north of Dane County still have very low counts of less than 20 larvae per 100 sweeps and defoliation is well below the 40% threshold. Regular sampling is especially critical at this time.

EUROPEAN CORN BORER: The spring flight began on May 20 with the capture of 17 moths at the Prairie du Chien monitoring location. Black light traps elsewhere should register the first moths of the season in the next 1-2 weeks, although the majority of first brood moths are unlikely to emerge before mid-June.

CODLING MOTH: The first sustained capture of moths, referred to as the "biofix", was set from May 19-21 at apple orchards in Grant, Green and Racine counties. The codling moth flight begins in Wisconsin from 201-340 degree days (base 50°F). According to the 50°F column in the degree day table on page 18, the upper range of this threshold has been surpassed in south-central and

southwestern Wisconsin. Daily monitoring is recommended in the next two weeks for central and northern orchards where the biofix has not yet been established.

PLUM CURCULIO: Beetle activity has increased with the warmer weather. Growers should begin checking early-blooming cultivars and orchard perimeter trees for oviposition scars and feeding injury caused by this pest. Signs of infestation usually become evident in the 14 days after petal fall.

FORAGES

ALFALFA WEEVIL: Larval populations are rapidly increasing in first growth alfalfa. Counts of 279-650 per 100 sweeps were found in a few Green and Lafayette County fields where defoliations levels ranged from 60-100%. Larval estimates at other sites in the south-central and southwestern areas were substantially lower and varied from 1-107 per 100 sweeps. Leaf tip damage associated with this insect is expected to become more pronounced by late May. Alfalfa fields should be checked regularly over the next 2-3 weeks for developing problems. Treatment is justified when the economic threshold of 40% tip feeding is exceeded 7-10 days in advance of harvest.



Alfalfa weevil leaf feeding injury

Krista Hamilton DATCP

POTATO LEAFHOPPER: Migrants were collected in low numbers from 15 of 35 fields sampled in the past week, as far north as Taylor in Jackson County. Recent surveys confirm the first distinct arrival episode has occurred.

PEA APHID: Counts in alfalfa varied from 1-16 per 100 sweeps throughout the south, but averaged fewer than four per 100 sweeps. Reproduction has started.

DEGREE DAYS JANUARY 1 - MAY 22

LOCATION	50°F	2012	NORM	48°F	40°F
Dubuque, IA	369	699	445	379	698
Lone Rock	344	694	—	341	655
Beloit	421	711	453	409	768
Madison	339	662	426	339	649
Sullivan	358	651	400	354	675
Juneau	307	610	—	325	607
Waukesha	301	534	—	312	592
Hartford	279	524	—	293	561
Racine	276	481	—	290	565
Milwaukee	263	471	336	276	539
Appleton	258	521	361	271	512
Green Bay	224	448	335	237	476
Big Flats	282	599	—	281	536
Hancock	284	586	414	292	535
Port Edwards	266	560	403	274	496
La Crosse	299	652	475	310	573
Eau Claire	262	559	413	273	484
Cumberland	217	471	354	215	405
Bayfield	108	345	—	96	254
Wausau	243	481	350	245	441
Medford	239	479	308	243	434
Crivitz	196	413	—	200	416
Crandon	219	411	282	213	397

Method: ModifiedB50: Sine48: ModifiedB40 as of Jan 1, 2013.
 NORMALS based on 30-year average daily temps, 1981-2010.

TARNISHED PLANT BUG: Adults are more numerous than last week, but counts remain low. All surveyed fields in the southern and central counties had fewer than six per 100 sweeps.

CORN

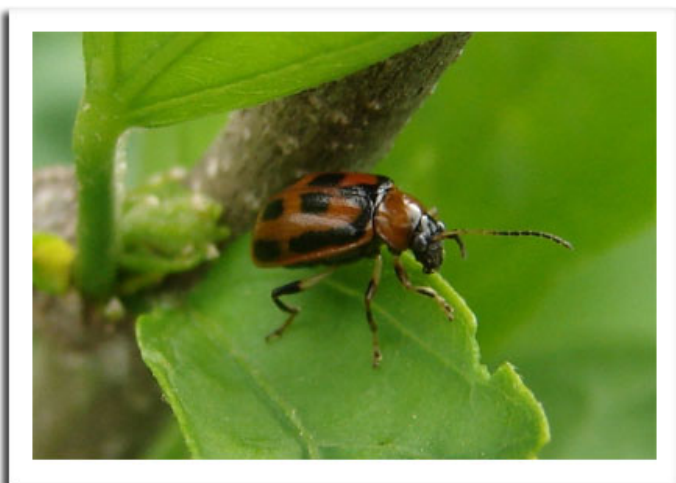
EUROPEAN CORN BORER: The first moths of the season were registered in the Prairie du Chien black light trap on May 20, marking the start of the spring flight. Most overwintered larvae are still in the pupal stage, which requires 10 days to complete at average temperatures of 65°F. Degree day accumulations in south-central and southwestern counties have surpassed 374 (modified base 50°F) and are now suitable for moth emergence. Larval abundance surveys performed last fall indicate an extremely low risk for severe infestations of first generation borers next month, but localized infestations in conventional corn fields and non-Bt refugia should be expected.

TRUE ARMYWORM: No substantial flights have been documented this month, but moths are common in grassy vegetation and egg deposition is expected to be heavy at this time. Consultants and growers should anticipate larval armyworms appearing in fields in 2-3 weeks.

BLACK CUTWORM: The annual migration accelerated this week with the capture of 119 moths in 30 traps, the largest weekly count since moths began arriving on April 15. Larvae resulting from the spring flight are in the early instar stages and signs of their feeding (i.e. small pinholes in the leaves) should be detectable next week in emerging corn fields. Based on expected temperatures, the primary damage period could begin by May 28 in far southern Wisconsin and 1-2 weeks later in the central and northern areas. Close inspection of susceptible corn is recommended through the four-leaf stage.

SOYBEANS

BEAN LEAF BEETLE: The first beetles were collected from Richland County alfalfa on May 15. This insect is inconsequential to alfalfa, but its presence and abundance can be an indicator of soybean defoliation potential. Early-planted soybeans are highly attractive to overwintered beetles and should be checked for feeding injury beginning at emergence.



Bean leaf beetle

Steve Scott bugguide.net

FRUITS

CODLING MOTH: The first moths of the season were registered on the nights of May 19-21 in apple orchards from Burlington in Kenosha County to Malone in Fond du

Lac County. Counts ranged from 1-18 per trap and the biofix was established at sites in Grant, Green and Racine counties. Codling moth flight occurs consistently between the hours of 5:00 and 10:00 pm in our region, and winds must be below three mph and temperatures above 62°F during these hours for mating to occur. Since evening temperatures will not be conducive for activity over the weekend of May 25-26, few additional moths are expected until early next week.

OBLIQUEBANDED LEAFROLLER: Late instar larvae and rolled leaves were noted this week near Dodgeville in Iowa County, signaling that the first adults could emerge before the end of the month. Most larvae are in the intermediate to late-instars at this time.



Obliquebanded leafroller moth

Ilona L. bugguide.net

SPOTTED TENTIFORM LEAFMINER: Moth emergence peaked in the last 1-2 weeks and is now declining. Populations in the southern two-thirds of the state consist mostly of first generation sapfeeder larvae. The recommended scouting procedure is to sample 10 terminals and fruit spurs per tree on 2-3 trees per orchard block 10-14 days after a peak flight has occurred. Sapfeeder mines should be noticeable on the undersides of leaves. The economic threshold is one mine per 10 leaves.

REDBANDED LEAFROLLER: Larval emergence has begun at locations where 228 degree days (base 50°F) have accumulated. The first RBLR larvae generally appear around petal fall and this is when scouting should commence. Controls applied at petal fall for other target pests usually provide satisfactory control of this pest.

TARNISHED PLANT BUG: Nymphs can be anticipated by early June. Strawberry plants beginning to bloom should

be checked weekly for both adults and nymphs. Sprays applied against the small, first and second instar stages are very effective and can eliminate the need for a second treatment. The economic threshold for this insect in strawberries is four per 20 sweeps.

VEGETABLES

COLORADO POTATO BEETLE: Emergence of overwintered beetles is under way in central Wisconsin. The early colonizing population is rarely damaging to young potatoes protected with a systemic neonicotinoid, but beetle abundance should be monitored to ensure effectiveness of insecticide products. Egg deposition is expected to begin by early June and continue for 2-4 weeks. The orange-yellow eggs are deposited in clusters of 15-30 on the undersides of leaves.



Colorado potato beetle

Phillippe_Boissel flickr.com

IMPORTED CABBAGEWORM: Larvae are appearing in areas of the state where 300 degree days (simple base 50°F) have been surpassed. This includes most of the southern half of Wisconsin, as far north as La Crosse. Cabbageworms chew large, irregular holes in leaves, bore into heads, and drop brown fecal pellets that contaminate the marketed product. Cole crops can tolerate considerable defoliation at the thinning or transplanting stages, but frequent sampling is recommended to assess populations and to avoid insecticide treatments that disrupt biological control. During the head formation stages, even low numbers of larvae can cause economic damage. The biological insecticide, *Bacillus thuringiensis* (Bt) is very effective against early-instar caterpillars and is an organically acceptable form of control. Economic thresholds for cabbage are 30% infestation at the transplant to

cupping stages and 20% infestation at cupping to early head stages.

ONION MAGGOT: As degree day accumulations approach 680 (simple base 40°F) in southern Wisconsin, peak emergence and oviposition by first generation flies should be anticipated. Damage by this pest can be averted by planting onion sets one week before fly emergence is predicted. The accumulation using a simple base temperature of 40°F was 675 near Sullivan in Jefferson County, 535 at Hancock, 484 near Eau Claire and 397 in Crandon as of May 22.

NURSERY & FOREST

HOLLYHOCK RUST: Nursery inspectors found this rust disease on several varieties of hollyhock and mallow in Door and Washington counties. Symptoms include numerous light yellow spots on the upper leaf surfaces and orange-brown rust pustules on the leaf undersides. Hollyhock rust worsens throughout summer, killing most of the foliage on infected plants by early fall. The disease cycle can be broken by cutting stalks back to ground level in the fall and destroying all infected plant material.



Hollyhock rust

Liz Meils DATCP

COLD DAMAGE: Shrubs, perennials and annuals are showing the effects of the cold nights over the past few weeks. The damage is attributed to exposure to cold temperatures during the early growth stages. The problem is evident statewide. Reports from the northeast and southeast regions indicate a wide variety of plants have been affected to some degree, including bleeding heart, boxwood, hosta, lilac, New Guinea impatiens, roses and many others.

BLACK SPOT ON ROSE: Symptoms of this fungal disease were observed on several rose cultivars at garden centers in Walworth and Washington counties. Diagnostic characteristics are small, round black spots on the leaf surface which enlarge and cause leaves to turn yellow and prematurely fall. Development of this rose disorder is favored by humid, wet conditions and can be alleviated by increasing air circulation and removing infected leaves and debris.



Black spot on rose

Liz Meils DATCP

CROWN RUST: The orange-yellow cluster cups that produce spores capable of infecting oats, rye and other grasses are appearing on buckthorn leaves in Columbia County. Heavy amounts of rust inoculum on the buckthorn host may indicate greater rust potential for oats this year if proper conditions for infection should develop.



Crown rust on buckthorn

Liz Meils DATCP

BALSAM TWIG APHID: Nursery inspectors report that the buds of balsam firs in Dunn, Pierce and St. Croix count-

ies are beginning to swell and break dormancy. The appearance of wingless female balsam twig aphids coincides with bud break, suggesting that the aphids will soon emerge and begin feeding on the buds. Controls must be initiated promptly in nurseries and Christmas tree plantings that had severe infestations of this pest last season.



Balsam fir buds

Konnie Jerabek DATCP

APPLE INSECT & BLACK LIGHT TRAP COUNTS MAY 16 - 22

COUNTY	SITE	STLM ¹	RBLR ²	CM ³	OBLR ⁴	AM RED ⁵	YELLOW ⁶
Bayfield	Keystone	0	0	—			
Bayfield	Orienta	0	1	—			
Brown	Oneida	300	56	—			
Columbia	Rio	20	5	5			
Crawford	Gays Mills	404	57	0			
Dane	Deerfield	—	—	—			
Dane	McFarland	0	0	0			
Dane	Mt. Horeb	80	8	0			
Dane	Stoughton	21	17	1			
Dane	West Madison	0	3	0			
Fond du Lac	Campbellsport	74	49	0			
Fond du Lac	Malone	19	18	1			
Fond du Lac	Rosendale	14	21	0			
Grant	Sinsinawa	0	0	14			
Green	Brodhead	2	9	18			
Iowa	Mineral Point	374	42	1			
Jackson	Hixton	38	2	0			
Kenosha	Burlington	150	14	2			
Marathon	Edgar	64	97	—			
Marinette	Niagara	71	13	—			
Marquette	Montello	268	2	—			
Ozaukee	Mequon	48	27	1			
Pierce	Beldenville	0	162	0			
Pierce	Spring Valley	13	158	0			
Polk	Turtle Lake	123	60	0			
Racine	Raymond	627	26	1			
Racine	Rochester	350	31	8			
Richland	Hillpoint	264	23	1			
Sheboygan	Plymouth	125	91	0			
Walworth	East Troy	12	4	—			
Walworth	Elkhorn	20	22	—			
Waukesha	New Berlin	1803	4	2			

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

COUNTY	SITE	ECB ¹	TA ²	BCW ³	SCW ⁴	DCW ⁵	CE ⁶	CEL ⁷	WBC ⁸	FORL ⁹	VCW ¹⁰
Chippewa	Chippewa Falls	—	—	—	—	—	—	—	—	—	—
Columbia	Arlington	—	—	—	—	—	—	—	—	—	—
Crawford	Prairie du Chien	17	1	0	0	0	0	0	0	1	0
Dane	Mazomanie	0	3	0	0	0	0	1	0	5	1
Fond du Lac	Ripon	0	17	0	0	0	0	1	0	0	0
Manitowoc	Manitowoc	—	—	—	—	—	—	—	—	—	—
Marathon	Wausau	—	—	—	—	—	—	—	—	—	—
Monroe	Sparta	—	—	—	—	—	—	—	—	—	—
Portage	Plover	—	—	—	—	—	—	—	—	—	—
Rock	Janesville	0	10	0	0	0	2	0	0	0	1
Walworth	East Troy	—	—	—	—	—	—	—	—	—	—
Wood	Marshfield	0	8	1	0	0	0	1	0	2	2

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