

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

Periods of rain from May 10-14 slowed seasonal field-work before sunshine and mild, dry weather returned on Tuesday. Showers and thunderstorms affected portions of southern Wisconsin over the weekend, with localized rain amounts up to three inches recorded near Milwaukee. The rainfall boosted early-season soil moisture for emerging crops, but further disrupted spring tillage and planting of corn, oats and potatoes. At the start of the week, corn producers had planted 30% of this year's crop, 13 percentage points behind last year and 16 points behind the 5-year average. Potato planting also remained well behind normal at 33% complete, 50 points or 11 days later than last year. Only 43% of the oats crop had been seeded, compared to 77% in 2017 and a 5-year average of 68%. Southerly winds associated with the weekend storms carried significant numbers of black cutworms and a few true armyworm moths into southern Wisconsin, as well as a variety of other migratory insect pests.

LOOKING AHEAD

ALFALFA WEEVIL: Larvae are appearing in southern and western Wisconsin alfalfa. Counts this week were low and defoliation was not observed. Sampling for larvae and leaf feeding damage should start by May 21 and continue through first harvest and early second-crop

regrowth. A defoliation level affecting 40% or more of alfalfa stems in the first crop signals the larval population is high and early harvest would be beneficial.

CODLING MOTH: Emergence is likely to begin next week in apple orchards where nightly temperatures are appropriate for moth flight (> 62°F). Close monitoring of traps next week is suggested to determine the "biofix" or first sustained moth capture on consecutive nights.

EUROPEAN CORN BORER: Pupation of overwintered larvae is underway, and the first spring moths could emerge by May 20 near Janesville and May 25 near Hancock. Black light trap contents should be carefully inspected in the week ahead for early ECB moths.

PLUM CURCULIO: A brief period of cool weather from May 11-13 temporarily slowed weevil migration into orchard perimeter trees, but the first adults and oviposition scars can be anticipated soon after petal fall. Apple growers are advised to examine early cultivars once fruits reach 5 mm for the crescent-shaped scars indicative of plum curculio egg laying.

BLACK CUTWORM: Migration flights continued for the third consecutive week. Survey traps collected 449 moths from May 10-16, with 15 locations recording a second round of significant captures of nine or more moths in two days. The highest individual trap count

for the week was 41 moths near Dodgeville in Iowa County. Early evidence of cutworm feeding could become detectable in emerging southwestern Wisconsin cornfields over the weekend of May 19-20, and the primary cutting window is expected to open in full by May 23 across much of the southern half of the state.



Black cutworm larva

www.export.biocontrol.ch

FORAGES & GRAINS

ALFALFA WEEVIL: Larvae were collected from alfalfa in Green and La Crosse counties on May 15, signaling the start of the 5 to 6-week alfalfa weevil season. Surveys yielded low counts of 1-2 larvae per 100 sweeps in three of 32 sampled fields. Alfalfa weevil larvae will become increasingly common in fields and sweep nets before the end of the month, with peak activity occurring by early to mid-June. Sampling for larvae and leaf tip feeding should begin by May 21 in southern Wisconsin and May 28 across the far northern counties.

PEA APHID: Recently-hatched nymphs were found in 28 of the 32 (77%) alfalfa fields sampled in the last reporting period. The high count of 52 aphids per 100 sweeps was recorded in Rock County.

TARNISHED PLANT BUG: Counts of this insect are still very low at less than 20 per 100 sweeps. Plant bug levels in alfalfa in May and June are rarely of economic importance, but their relative abundance is an indicator of potential problems for other fruit, flower and vegetable hosts. The numbers observed this week suggest populations are low but increasing, and scouting of apples and strawberries is in order.

DEGREE DAYS JANUARY 1 - MAY 16

LOCATION	50°F	2017	NORM	40°F
Dubuque, IA	364	469	385	738
Lone Rock	320	419	—	658
Beloit	316	425	393	650
Sullivan	263	366	344	555
Madison	298	389	368	618
Juneau	266	353	—	555
Racine	233	305	—	509
Waukesha	241	334	—	520
Milwaukee	241	304	289	525
Hartford	253	335	—	537
Appleton	238	276	—	491
Green Bay	228	271	284	476
Big Flats	276	349	—	560
Hancock	239	307	356	483
Port Edwards	242	301	346	492
La Crosse	325	401	409	655
Eau Claire	287	338	352	552
Cumberland	220	221	298	424
Bayfield	165	114	—	342
Wausau	217	232	296	442
Medford	210	217	259	423
Crivitz	240	245	—	465
Crandon	205	182	238	410

*Method: Modified B50; Modified B40 as of January 1, 2018.
NORMALS based on 30-year average daily temps, 1981-2010.*

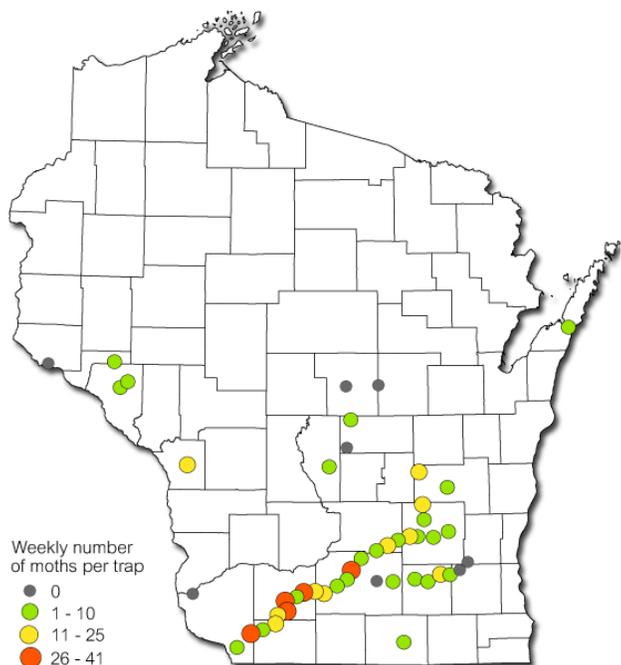
CORN

BLACK CUTWORM: Larvae resulting from the spring migration are expected to reach the destructive corn-cutting stages by May 23 across much of southern Wisconsin. Based on accumulated degree days since the first significant moth captures on April 30, by next week, some larval offspring will have developed to the fourth instar, the stage at which the ½-inch caterpillars begin cutting plant stems. Signs of cutworm activity, including small, irregular holes in the leaves and cut plants, could be encountered in emerging corn. Fields with preexisting winter annual weed infestations and those affected by spring flooding should be closely monitored.

Summarized in the map below are cumulative black cutworm counts for the period of May 10-16. The spring trapping survey has so far captured 1,162 moths in 47 traps, with a high individual count of 92 moths near

Platteville in Grant County. Approximately 1,730 moths in 45 traps had been collected by this time last year.

Black Cutworm Counts May 10-16, 2018



Wisconsin Department of Agriculture, Trade and Consumer Protection



EUROPEAN CORN BORER: A few early spring adults could emerge next week in locations such as Beloit, La Crosse and Spring Green where the 374 degree days (modified base 50°F) required for corn borer flight to begin are likely to be surpassed. Black light trappers are advised to carefully examine trap contents during the next two weeks for the first ECB moths.

SOYBEANS

BEAN LEAF BEETLE: Overwintered beetles were found in two of 32 alfalfa fields sampled this week. The first appearance of this insect was noted on May 7 in Richland County. Routine scouting for beetles and feeding injury to cotyledons, stems, and unifoliate leaves should begin at soybean emergence.

FRUITS

REDBANDED LEAFROLLER: The spring flight has increased and egg deposition is well underway. Larvae

will begin emerging next week. Sampling for the early-instar caterpillars on foliage and watersprouts is recommended 10-12 days after the first moths are trapped. Late-instar larvae and pupae can be found by searching for folded leaves. An important distinguishing feature of the RBLR larva is its uniform coloration (both the body and head are yellowish-green). Other leafrollers have black or dark heads.

PLUM CURCULIO: Overwintered weevils have resumed their migration into orchards with recent warm temperatures. Early blooming varieties such as 'Gala', 'McIntosh' or 'Paulared' should be checked for evidence of feeding and oviposition during the first 14 days after petal fall.

CODLING MOTH: Apple growers are reminded to place pheromone traps now to detect the first spring moths. Emergence could begin this weekend (May 19-20) in locations where nightly temperatures exceed 62°F. Daily monitoring over the next two weeks will be required to document the "biofix" or first sustained male moth capture.



Codling moth

Giancarlo M. www.naturamediterraneo.com

ROSY APPLE APHID: Egg hatch has begun and will continue for about two weeks. Scouting orchard blocks or cultivars with past aphid damage is advised starting in the week ahead. Aphid sprays should not be applied if trees are in bloom.

SPOTTED TENTIFORM LEAFMINER: First-generation moths have been active since late April, and peak emergence likely occurred this week at several southern orchard locations. Populations are now transitioning into the larval stages. The optimal sample period for sapfeeder larvae is 10-14 days after a peak capture (usually 800-1,200 moths) is registered. Pheromone

trap counts during the last week ranged widely from 0-1,130 moths, with the high reported from Oneida in Brown County.

OBLIQUEBANDED LEAFROLLER: Larvae are appearing after overwintering under the bark of scaffold limbs and twigs. The ¼-inch, yellowish-green caterpillars with black head capsules will feed for 2-3 weeks before pupating within leaf tubes. Apple growers should set OBLR traps by early next week.



Obliquebanded leafroller larva

whatcom.wsu.edu

VEGETABLES

ONION MAGGOT: Emergence of flies from overwintered pupae is likely to begin in parts of southern Wisconsin over the weekend of May 19-20. Degree day accumulations as of May 16 reached 650 at Beloit, 655 at La Crosse and 658 at Lone Rock; approximately 680 degree days (modified base 40°F) are required for adult emergence. Flies of this spring generation are usually the most damaging, especially at sites where onions are grown in succession and cull onions are left in fields. Preventative soil insecticides at seeding should be considered if maggot damage to the last season's crop exceeded 5-10%. Granular furrow treatments offer good control of first and second-generation maggots, provided the rate is correct and the insecticide is placed in the furrow properly with the seed. Home gardeners are advised to rotate this year's onion plantings as far as possible from last year's site to reduce the probability of damage.

COLORADO POTATO BEETLE: Overwintered adults will soon begin emerging from hibernation and dispersing to plants near field edges. Egg deposition and larval hatch

can be expected by the third week of May. The orange-yellow eggs are deposited in clusters of 15-30 on the undersides of leaves.



Colorado potato beetle

www.toronto-wildlife.com

SEEDCORN MAGGOT: Emergence of first-generation flies has peaked statewide with the accumulation of 360 degree days (sine base 39°F). Heavy egg laying may still occur for another week in areas north of Wausau, but should be declining across the south.



Seedcorn maggot larva

www.extension.entm.purdue.edu

LATE BLIGHT: According to the requirements of Wisconsin Administrative Code (ATCP 21.15(2)), potato cull piles must be fed to livestock, disked in, or otherwise removed by May 20, to prevent late blight from developing on volunteer plants. No late blight cases have been confirmed in Wisconsin at this early point in the season, but the risk of the disease occurring again in 2018 is elevated given the presence of the late blight pathogen in the state in 2017.

SPOTTED CUCUMBER BEETLE: Spring migrants were collected from Green County alfalfa earlier this week. These distinctive yellowish-green beetles with black spots do not overwinter in Wisconsin, but arrive on storm fronts at this time of year. Both the spotted species and the striped cucumber beetle transmit bacterial wilt of cucumbers, muskmelons and watermelons. Scouting field edges and interiors biweekly is recommended starting in late May once the beetles are noticed. Early control of the striped beetle species may be required in large commercial muskmelon or cucumber operations if numbers are high, especially if the beetles have been a problem in the past. The spotted cucumber beetle species is rarely abundant enough to require treatment.

NURSERY & FOREST

MACROPHOMA LEAF SPOT: This weakly parasitic fungal disease was observed on boxwood “Green Velvet” in Kenosha County last week. *Macrophoma* leaf spot threatens poorly-maintained or infrequently-pruned boxwood plants, and like many fungi, thrives in the cool, dark interior of the plant. The most obvious symptoms are the many tiny black raised fruiting bodies found on dying or dead straw-colored leaves. The spreading fungus defoliates new growth, with the potential to kill entire branches within a few weeks.



Macrophoma leaf spot on boxwood

Ct.gov image gallery

Control measures include pruning diseased branches at the first sign of infection and regularly cutting back healthy, heavily-leaved branches to increase ventilation and airflow into the shrub's interior. Annual pruning and immediate removal of any infected debris also helps prevent the disease.

PLANT VIRUSES: Plant viruses continued to dominate nursery inspection reports across the state. Potyvirus was confirmed in several Iris and sedum varieties at locations in Jefferson, La Crosse, Rock, and Washington counties. Tobacco Rattle Virus (TRV) was diagnosed in angel's flower and bleeding heart in La Crosse, Racine, and Waukesha counties, while rose cardinal flower from a Washington County greenhouse tested positive for cucumber mosaic virus.



Tobacco rattle virus in angel trumpet

Tim Boyle DATCP

Industry-wide attention to selecting and maintaining virus-free breeding stock, consumer education to recognize plant virus symptoms, and the prompt removal and proper disposal of infected plant materials are the best tools for reducing virus problems.

RHIZOCTONIA CROWN ROT: Nursery inspections found bacopa and Echinacea ‘Pow Wow White’ plants suffering from *Rhizoctonia* crown rot. The causal agent, *Rhizoctonia solani*, attacks hosts in the early stages of development, primarily affecting the roots and lower stems and causing various diseases such as collar rot, damping-off, and wire stem. *Rhizoctonia* produces sclerotia, which are durable, brownish-black structures that allow the fungus to survive for years in soil or infected plant tissue. Control can include fungicide drenches along with the following preventive cultural methods: using new containers or properly sanitizing reused containers, avoiding reuse of growing medium, removing diseased plants and plant residues from the growing area, minimizing plant stress and preventing injury entry points, watering in the morning to allow leaves and stems to dry before sunset, and increasing airflow and plant spacing to maintain humidity levels below 93% while growing plants at temperatures 70 °F or colder to discourage root-borne diseases.

APPLE INSECT & BLACK LIGHT TRAP COUNTS MAY 10 - 16

COUNTY	SITE	STLM ¹	RBLR ²	CM ³	OBLR ⁴	DWB ⁵	LPTB ⁶	BMSB ⁷	AM RED ⁸	YELLOW ⁹
Bayfield	Keystone	15	2	0			0			
Bayfield	Orienta	0	0							
Brown	Oneida	1130	79	0						
Columbia	Rio	—	—	—						
Crawford	Gays Mills	163	75	—	0		0			
Dane	DeForest	—	—	—						
Dane	Mt. Horeb	62	97	0						
Dane	Stoughton	28	20	—	0		0			
Fond du Lac	Campbellsport	107	43	0						
Fond du Lac	Malone	5	23	0						
Fond du Lac	Rosendale	56	93	0	0		0			
Grant	Sinsinawa	13	6	—	3					
Green	Brodhead	30	60	—						
Iowa	Mineral Point	275	60	0	0		0			
Jackson	Hixton	277	52	0	0		0			
Kenosha	Burlington	140	13	0			0			
Marathon	Edgar	336	13	0						
Marinette	Niagara	25	25	—			0			
Marquette	Montello	972	123	0	0		0			
Ozaukee	Mequon	50	64	0			0			
Pierce	Beldenville	105	72	0	0		0			
Pierce	Spring Valley	66	22	0	0		0			
Racine	Raymond	35	0	—			0			
Racine	Rochester	810	114	0						
Richland	Hill Point	55	52	—			0			
Sheboygan	Plymouth	315	27	—			0			
Walworth	East Troy	95	5	—			0			
Walworth	Elkhorn	23	0	—			0			
Waukesha	New Berlin	20	0	—			0			

¹Spotted tentiform leafminer; ²Redbanded leafroller; ³Codling moth; ⁴Obliquebanded leafroller; ⁵Lesser peachtree borer; ⁶Dogwood borer; ⁷Brown marmorated stink bug; ⁸Apple maggot red ball; *Unbaited; **Baited; ⁹Apple maggot yellow board.

COUNTY	SITE	BCW ¹	CEL ²	CE ³	DCW ⁴	ECB ⁵	FORL ⁶	SCW ⁷	TA ⁸	VCW ⁹	WBC ¹⁰
Columbia	Pardeeville	0	0	0	0	0	0	0	0	0	0
Dodge	Beaver Dam	0	0	0	0	0	0	0	4	0	0
Fond du Lac	Ripon	0	1	0	0	0	0	0	1	0	0
Grant	Prairie du Chien	0	0	0	0	0	2	0	0	0	0
Manitowoc	Manitowoc	1	0	0	0	0	0	0	0	0	0
Marathon	Wausau	—	—	—	—	—	—	—	—	—	—
Monroe	Sparta	0	0	0	0	0	1	2	4	0	0
Rock	Janesville	0	1	0	0	0	3	0	27	0	0
Walworth	East Troy	1	0	0	0	0	0	0	2	0	0
Wood	Marshfield	1	0	0	0	0	0	0	3	0	0

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