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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

Damp weather and wet soils continued to limit early-season fieldwork in Wisconsin during the week ending April 27. Following a mild, mostly dry weekend, low pressure brought several days of rainy, unseasonably cool weather to the state, with temperatures cold enough to produce freezing rain in the south and as much as three inches of snow in the far northern counties. The intermittent precipitation suspended spring tillage, currently seven days behind last year and five days behind the five-year average, while planting was restricted by soggy field conditions. Although above-normal temperatures from February-April spurred both plant and insect development well ahead of average, USDA NASS crop reports show there have been only 8.5 days suitable for fieldwork in Wisconsin since March 27, too few to allow for significant planting progress. Only 1% of the state's intended corn acreage had been planted at the start of the week. An extended period of warm, dry weather is needed in May to alleviate excessive field moisture before full-scale corn planting can begin.

LOOKING AHEAD

BLACK CUTWORM: The first reported moth of the season was captured on March 26 near Janesville in Rock County. A weather system from April 8-12 brought the first significant influx of moths into the state, resulting in a total of 201 moths in DATCP traps. Another 200 specimens were collected from April 13-19, and 635 were reported from April 20-26. The annual monitoring survey has captured a total of 1,036 black cutworm moths in 45 traps this month. Delayed spring tillage, wet field conditions, abundant winter annual weed growth, and the high April moth count signal an elevated risk of larval infestations in emerging corn in May.

BROWN MARMORATED STINK BUG: More than 34 BMSB reports have been confirmed by the UW Insect Diagnostic Lab this spring, most from the Madison area of Dane County. Several specimens have also been received from Jefferson and Walworth counties, and other southeast Wisconsin locations. The BMSB activity documented so far indicates that 2017 is likely to be the third consecutive year of rapid range expansion and population growth for this newly-established pest.

ALFALFA WEEVIL: Adults have resumed activity and egg deposition is occurring in southern and central Wisconsin alfalfa. Larval emergence is predicted for May 2 in Grant and Rock counties.

GYPSY MOTH: Overwintered eggs began hatching on April 21 in Dane County. Horticultural oil applied directly to the egg masses will remain an effective treatment for about one more week in the central and northern areas of

the state. Golden Pest Spray Oil and other oil products labeled for gypsy moth control are available online or at garden centers and retailers.

EASTERN TENT CATERPILLAR: Larvae have been active since late March. The tents now appearing on apple, ornamental crabapple, wild cherry, and other host trees should be manually removed during the next two weeks. Pruning infested branches is unnecessary and is not advised.

Eastern tent caterpillar minnesotaseasons.com

FORAGES & GRAINS

ALFALFA WEEVIL: Adult specimens were collected in Columbia, La Crosse and Monroe County alfalfa fields on April 24 and spring egg deposition is underway. The first appearance of larvae is predicted for May 2 in southwest Wisconsin, May 9 across the central counties, and May 16 north of Wausau. A mild winter, including an unusually warm February, likely favored overwintering weevil populations statewide.

PEA APHID: Egg hatch was confirmed by April 17. Alfalfa sampled this week in the south-central and west-central areas contained very low counts of 1-15 aphids per 100 sweeps. Aphid densities in alfalfa will continue to increase next month and should peak about two weeks before the first harvest.

TARNISHED PLANT BUG: Adults of this species are already common in six to 12-inch alfalfa fields. The early levels noted are insignificant for alfalfa, but suggest this fruit pest could soon begin feeding on flower buds in Wisconsin apple orchards and strawberry plantings.

DEGREE DAYS JANUARY 1 - APRIL 26

LOCATION	50°F	2016	NORM	40°F
Dubuque, IA	291	233	188	626
Lone Rock	260	206	—	545
Beloit	287	240	193	606
Sullivan	241	147	161	520
Madison	246	183	178	526
Juneau	227	140	—	487
Racine	221	135	—	491
Waukesha	223	147	—	495
Milwaukee	213	125	142	478
Hartford	219	147	—	482
Appleton	160	106	—	378
Green Bay	158	80	124	368
Big Flats	208	165	—	443
Hancock	181	165	166	393
Port Edwards	173	156	163	384
La Crosse	231	221	196	509
Eau Claire	176	178	161	414
Cumberland	97	142	126	293
Bayfield	22	78	—	144
Wausau	125	113	129	322
Medford	106	113	107	303
Crivitz	138	71	—	336
Crandon	94	91	96	276

Method: Modified B50; Modified B40 as of January 1, 2017. NORMALS based on 30-year average daily temps, 1981-2010.

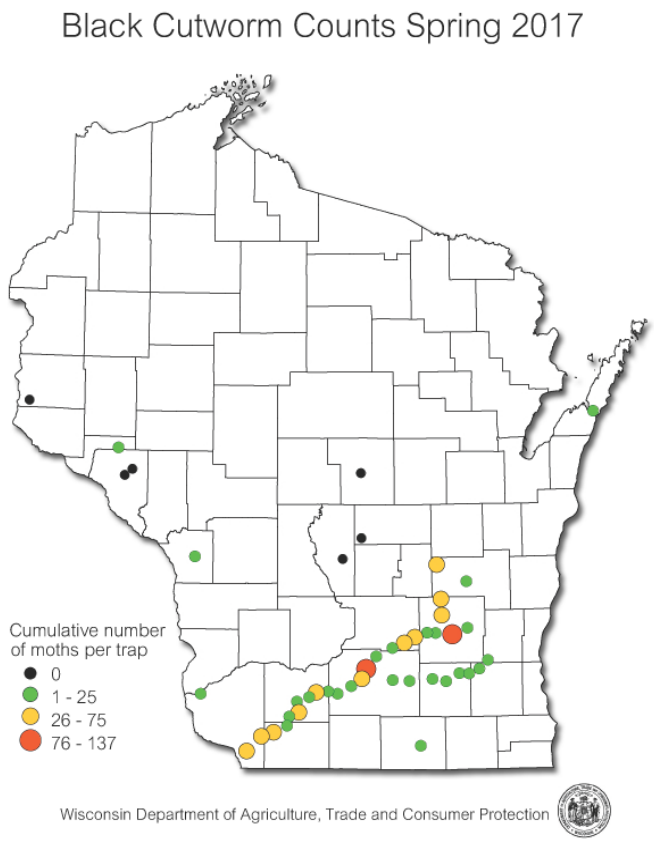
CORN

EUROPEAN CORN BORER: Pupation of overwintered larvae is underway in southwest Wisconsin. Last fall's slightly higher larval population (11 borers per 100 plants) may produce a larger spring moth flight than in recent years. Considering the potential for a rise in ECB levels and the expected increase in conventional corn acreage, 2017 will be an important year to closely follow ECB flight data and whorl-stage corn survey results in June.

BLACK CUTWORM: Strong southerly winds from April 8-12 brought the season's first major migration of black cutworms northward into the state. DATCP monitoring locations collected 201 moths during that period, with seven sites registering "significant" counts of nine or more moths in two nights. Another 835 moths were captured during the two weeks from April 13-26, while 17 more traps recorded significant numbers. Thirty-nine of 45 pheromone traps from Prairie du Chien in Grant County

to Sturgeon Bay in Door County have to date captured 1,036 specimens. As of April 26, the highest individual cumulative trap count is 137 moths in Dodge County.

The relatively high moth numbers recorded in April suggest a heightened risk for black cutworm problems when corn emerges next month. Conditions were also very conducive for outbreaks last spring, though significant infestations did not develop. The map below summarizes this month's trap counts.



TRUE ARMYWORM: The black light trap at Janesville in Rock County collected 29 moths on the nights of April 13-19. Although these counts are very low in comparison to the large number of black cutworm moths captured during the same period, they signal that a migration has occurred. Black light trap network participants should install traps by May 4 to monitor the armyworm flight this spring.

SOYBEANS

BROWN MARMORATED STINK BUG: Reproducing populations are now well-established in portions of southern Wisconsin. Soybeans, corn and other agronomic crops are at risk as this invasive pest becomes more widely distributed in the state. Feeding by BMSB on soybean pods and seeds results in 'stay green' symptoms, or soybeans that do not produce harvestable yields. Crop advisors and soybean growers should be alert for BMSB in 2017 and send any suspects to the UW Insect Diagnostic Lab for identification. Minnesota confirmed its first detection of BMSB in soybeans last August, in Dakota County bordering northwest Wisconsin.

Brown maramorated stink bug *Yerpo https: commons.wikimedia.org*

FRUITS

APPLE THREAD BLIGHT: This fungal disease was diagnosed in March on an apple branch from Vernon County, representing the first Wisconsin case confirmed by the UW Plant Disease Diagnostics Clinic. According to Brian Hudelson, the infected sample was covered with small, brown bumps initially thought to be a scale insect that were later identified as fungal sclerotia. Apple thread blight can lead to leaf-loss and branch tip dieback, and is more common in warmer, wetter climates typical of the southeastern United States. A regular fungicide spray program usually provides satisfactory control of this disease.

SPOTTED TENTIFORM LEAFMINER: The first moth flight began by April 8. Counts in the last two weeks have been variable, with some orchards capturing relatively few STLMs and others reporting weekly catches of 500 or more moths. The high count from April 19-26 was 702 moths per trap near Edgar in Marathon County. Peak emergence or trap catch of spring adults is approaching and should occur at advanced sites during the first or second week of May.

GRAPE FLEA BEETLE: The spring migration of overwintered beetles into vineyards has started. Scouting twice weekly from bud swell until the first leaf separates from the shoot tip is suggested through mid-May, or once shoot growth has reached three inches. Early spring feeding by adult flea beetles damages primary buds, preventing shoot expansion and ultimately reducing grape yields. Plants on the margins of vineyards are at greatest risk of injury. An economic threshold of 5% bud damage can be used to determine the need for control.

Grape flea beetles and bud injury *www.omafra.gov.on.ca*

REDBANDED LEAFROLLER: Counts since mid-April have ranged from 0-145 per trap and nearly all orchards in the DATCP monitoring network have captured some RBLR moths. Apple growers are reminded that sampling for newly hatched RBLR larvae on foliage and watersprouts is advised beginning 10-12 days after the first moth is trapped. RBLR larvae are uniformly yellowish-green and should not be mistaken for the OBLR, which has a shiny black head capsule.

EASTERN TENT CATERPILLAR: Egg hatch began by March 19 in Rock County following the accumulation of 50 degree days (modified base 50°F). The characteristic tents are now visible on wild cherry, apple, flowering crabapple and other host trees. Control is most effective from late April until early May, while the larvae and tents are still small.

OBLIQUEBANDED LEAFROLLER: Larvae have resumed activity after overwintering under the bark of scaffold limbs and twigs. The ¼-inch, yellowish-green caterpillars with black head capsules are expected to feed for 2-3 weeks before pupating within leaf tubes. Scouting flowers and leaf buds with a 10X hand lens is recommended at this time.

VEGETABLES

COMMON ASPARAGUS BEETLE: Beetle emergence and egg deposition on asparagus spears have begun near Beloit, La Crosse, Platteville and other advanced southern and western locations. Plants should be examined for adults and eggs on warm, sunny afternoons when the beetles are most active. Control may be considered if 5-10 beetles are found per 100 spears or if eggs are present on at least two of 100 spears, ferns, or flower buds. Eliminating the adults early in spring, before significant egg laying has occurred, is the most effective management strategy.

Common asparagus beetle *macrophotoplaisirpassion.blogspot.com*

IMPORTED CABBAGEWORM: Adults have been emerging since late March. The presence of these yellowish-white butterflies around field plantings and home gardens indicates eggs are being laid on early-planted or transplanted broccoli, cabbage, kale and other cole crops. Two basic measures to reduce early ICW damage are to ensure transplants are free of larval contamination and to install floating row covers or another physical barrier to prevent oviposition on cole crop plantings. Btk products for ICW control must be applied while larvae are small.

CABBAGE MAGGOT: Peak emergence of first-generation flies has occurred throughout southern and west-central Wisconsin, from Racine north to Eau Claire. Cabbage maggot eggs are being laid in areas of the state where the common lilac is in full bloom. Broccoli and

cauliflower grown on light sandy soils are at highest risk of maggot infestation at this time of year and should be closely monitored early next month for signs of injury. Cole crops transplanted next week or in early May will be theoretically less at risk of infestation now that critical first-generation egg laying period has passed.

NURSERY & FOREST

ROSE VIRUSES: Rose plants testing positive for apple mosaic virus and Prunus necrotic ringspot virus arrived in Wisconsin last month in a shipment originating in Arizona. The roses harbored both viruses on the same individual plants, which exhibited characteristic yellow chlorotic mottling on the dark green leaves. Necrotic and chlorotic local lesions, mosaic patterns, and ringspots are also typical with these diseases. Both types of viruses can be transmitted by mechanical inoculation and through grafting. Virus-infected roses are less vigorous, more susceptible to winter mortality, and should be removed from sale and destroyed or returned to the supplier.

Apple mosaic and Prunus necrotic ringspot viruses on rose Tim Boyle DATCP

GARLIC MUSTARD AND WILD PARSNIP: Emergence and rosette development of these invasive plants has been noted as far north as Chippewa County. Efforts to remove or treat these weeds will be most effective against the first-year rosette stage plants. Garlic mustard can be controlled by manual removal, and wild parsnip by cutting the taproot just below the soil surface. Removed plants should be placed in dark plastic bags and disposed of in a landfill. For extensive infestations where herbicide use is required, application of 2, 4-D and/or Dicamba to the plants in very early spring or fall also provides control.

HEMLOCK WOOLY ADELGID: Nursery stock dealers and growers are reminded that DATCP has enacted an exterior quarantine (ATCP 21.16) regulating the entry of hemlock plant material from states infested with hemlock wooly adelgid (HWA). This aphid-like insect has caused widespread mortality of eastern and Carolina hemlock trees from Maine to Georgia and now occurs in 19 states, including neighboring Michigan where there are 14 known active populations in five southwestern counties. Eradication of HWA may be possible if an infestation is detected early, but preventing introduction of HWA into the state is preferred. Nursery operators should closely inspect hemlocks purchased from an out-of-state nursery and report any suspicious hemlock trees to a DATCP Nursery Inspector.

Hemlock wooly adelgid Twan Leenders http://rtpi.org

OAK WILT: Abnormal warmth in February and March was very favorable for early growth of fungal mats and activity by the insect vectors of oak wilt. It is strongly recommended that Wisconsin residents do not trim or prune oak trees from now through the end of October. The lethal fungus that causes oak wilt enters oak trees through new wounds, making late-spring or summer pruning an unnecessary risk. The preferred time to prune oaks is from October through March. If oaks must be trimmed or cut during the growing season, the wound should immediately be treated with pruning paint to prevent infection.

HONEY LOCUST PLANT BUG: Nymphs are emerging statewide and are feeding on expanding honey locust foliage. Light feeding by the HLPB in spring causes yellow stippling of the leaves, while severely infested trees develop tattered foliage which persists all summer.

Most of the feeding damage caused by this pest occurs before the leaves have fully developed, so early treatment is critical. Nymphs can be controlled chemically with horticultural oil or insecticidal soap, or physically, with a high-pressure sprayer. Honey locust cultivars with yellow leaves are generally more susceptible to plant bugs than varieties with green leaves.

Honeylocust plant bug damage *Liz Meils DATCP*

GYPSY MOTH: Approximately 11,000 pheromone traps will be set in the western half of the state this season to evaluate gypsy moth populations. Trap deployment is scheduled to begin during the week of May 8 and should be complete by early July. Landowner cooperation in allowing traps to be set on their property is imperative to the success of the annual trapping survey.

Gypsy moth trap *Rob Lawrence https://mdc.mo.gov/*

PLANT DISEASE DIAGNOSTICS CLINIC: The UW-Madison/Extension Plant Disease Diagnostics Clinic provides unbiased, research-based plant disease identification and control recommendations for Wisconsin agricultural/horticultural producers and businesses, and homeowners. Plant samples may be submitted through a county UW-Extension office or directly to the clinic. Fees for PDDC services are typically $20-25, although additional charges may apply depending on the sample type and tests requested. Some tests are free.

PDDC tests include, but are not limited to, those for soybean cyst nematode [including race typing in partnership with the UW Nematode Diagnostic Lab], tar spot and Goss' wilt of corn, Aphanomyces seedling blight/root rot (including race testing of soil) of alfalfa, late blight of potato and tomato, black leg/tuber soft rot (*Dickeya*) of potato, downy mildew and virus diseases of hop, thousand canker disease of walnut, boxwood blight, and impatiens downy mildew.

Questions about submitting a sample or PDDC fees should be directed to PDDC Director Brian Hudelson at (608) 262-2863 or pddc@wisc.edu.

APPLE INSECT & BLACK LIGHT TRAP COUNTS APRIL 20 - 26

COUNTY	SITE	STLM[1]	RBLR[2]	CM[3]	OBLR[4]	OFM[5]	LPTB[6]	DWB[7]	AM RED[8]	YELLOW[9]
Bayfield	Keystone	—	—							
Bayfield	Orienta	0	0							
Brown	Oneida	—	—							
Columbia	Rio	—	—							
Crawford	Gays Mills	—	—							
Dane	DeForest	—	—							
Dane	Edgerton	—	—							
Dane	Mt. Horeb	92	—							
Dane	Stoughton	22	96							
Fond du Lac	Campbellsport	10	15							
Fond du Lac	Malone	4	30							
Fond du Lac	Rosendale	3	2							
Grant	Sinsinawa	32	29							
Green	Brodhead	—	—							
Iowa	Mineral Point	400	144							
Jackson	Hixton	—	—							
Kenosha	Burlington	98	33							
Marathon	Edgar	702	73							
Marinette	Niagara	—	—							
Marquette	Montello	324	52							
Ozaukee	Mequon	7	16							
Pierce	Beldenville	—	—							
Pierce	Spring Valley	—	—							
Racine	Raymond	—	—							
Racine	Rochester	386	111							
Richland	Hill Point	103	104							
Sheboygan	Plymouth	693	—							
Walworth	East Troy	—	93							
Walworth	Elkhorn	98	113							
Waukesha	New Berlin	—	—							

[1]Spotted tentiform leafminer; [2]Redbanded leafroller; [3]Codling moth; [4]Obliquebanded leafroller; [5]Oriental fruit moth; [6]Lesser peachtree borer; [7]Dogwood borer; [8]Apple maggot red ball; *Unbaited; **Baited; [9]Apple 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	Arlington	—	—	—	—	—	—	—	—	—	—
Columbia	Pardeeville	—	—	—	—	—	—	—	—	—	—
Dodge	Beaver Dam	—	—	—	—	—	—	—	—	—	—
Fond du Lac	Ripon	—	—	—	—	—	—	—	—	—	—
Grant	Prairie du Chien	0	0	0	0	0	1	0	2	0	0
Manitowoc	Manitowoc	—	—	—	—	—	—	—	—	—	—
Marathon	Wausau	—	—	—	—	—	—	—	—	—	—
Monroe	Sparta	—	—	—	—	—	—	—	—	—	—
Rock	Janesville	1	0	0	0	0	0	0	28	1	0
Walworth	East Troy	—	—	—	—	—	—	—	—	—	—
Wood	Marshfield	—	—	—	—	—	—	—	—	—	—

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