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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
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WEATHER & PESTS

A return of warm weather accelerated spring tillage and planting. The storm system responsible for last week's historic snow event dissipated, allowing dry, pleasant conditions to return to most of the state. Daytime high temperatures surged above 80°F, easing winter crops out of dormancy several weeks later than normal. Increasing warmth also promoted fieldwork and crop development, including growth of winter wheat, which had halted due to the untimely spring snow storm. Mostly sunny skies and dry weather favored planting of oats, potatoes and some corn in areas where field conditions were suitable. Planting progress advanced as rapidly as could be expected, but remained significantly delayed. As of May 6, only 4% of Wisconsin's corn crop had been planted, an increase from less than 1% the week before yet still far behind the five-year average of 26%. Continued warm, dry weather is needed to offset this spring's record planting delays.

LOOKING AHEAD

BLACK CUTWORM: Migrants arrived in low to moderate numbers in the last week. The first significant capture of nine moths per trap in two nights was registered in Dodge and Grant counties from May 6-7, signaling the start of oviposition in fields with winter annual weeds. Black cutworm larvae require 300 growing degree days (base 50°F) beyond a significant capture to develop from the egg to plant-cutting fourth instar stage.

EUROPEAN CORN BORER: Pupation of overwintered larvae is expected to begin across southern Wisconsin in the next two weeks, as mountain ash flowers. According to the annual larval abundance survey last fall, populations are at an all-time low and the first flight of moths emerging in June will be extremely small again this year. Black light traps should be installed by May 15 to monitor the spring flight.

POTATO LEAFHOPPER: One adult specimen was collected near Richland Center in Richland County on May 7, the first leafhopper of the season. Surveys in Grant, Iowa, Lafayette, Sauk and Vernon counties were negative. This finding indicates a few early migrants arrived on southerly winds in the past two weeks.

GYPSY MOTH: Larvae began emerging from overwintered egg masses on May 6 in Rock County. Phenological indicators of gypsy moth egg hatch include beginning bloom of eastern redbud and saucer cup magnolia petal fall. Larval emergence is anticipated by May 15 in the central areas and about one week later in the north.

PLUM CURCULIO: Migration to host trees is probable in the week ahead at orchard locations where mean day-

time temperatures continue to exceed 60°F. Pyramid traps should be placed at this time and checked twice weekly during the six-week adult emergence period.

EASTERN TENT CATERPILLAR: Larvae have been active since April 26 and their tents should soon be noticeable on apple, ornamental crabapple and wild cherry trees. Removal of the small tents by hand or with a tool during the next two weeks will prove most effective in reducing defoliation. Burning the tent is hazardous and is not advised.

FORAGES

ALFALFA WEEVIL: Surveys in alfalfa found adults at the rate of 1-9 per 100 sweeps. Egg deposition is under way across southern Wisconsin where the first weevil larvae could appear in sweep net collections next week. Routine field scouting is advised beginning at 300 degree days (base 48°F), or about May 15 in the southern counties, May 21 in the central counties and May 24 in the north.

Alfalfa weevil *NCSU image gallery www.cals.ncsu.edu*

PEA APHID: Alfalfa sampled in Grant, Iowa, Lafayette, Richland, Sauk and Vernon counties showed low counts of 1-24 aphids per 100 sweeps.

TARNISHED PLANT BUG: Adults can be found in most alfalfa fields in the southwest area of the state. The average count in the last week was two per 100 sweeps.

ENGLIGH GRAIN APHID: Migrants were swept in from alfalfa in very low numbers, ranging from 1-3 per 100 sweeps in Richland and Vernon counties. None were found in the other fields surveyed in southwestern Wisconsin. This migratory pest of small grains seldom reaches economic levels but it is a vector of both cereal yellow dwarf virus and barely yellow dwarf virus.

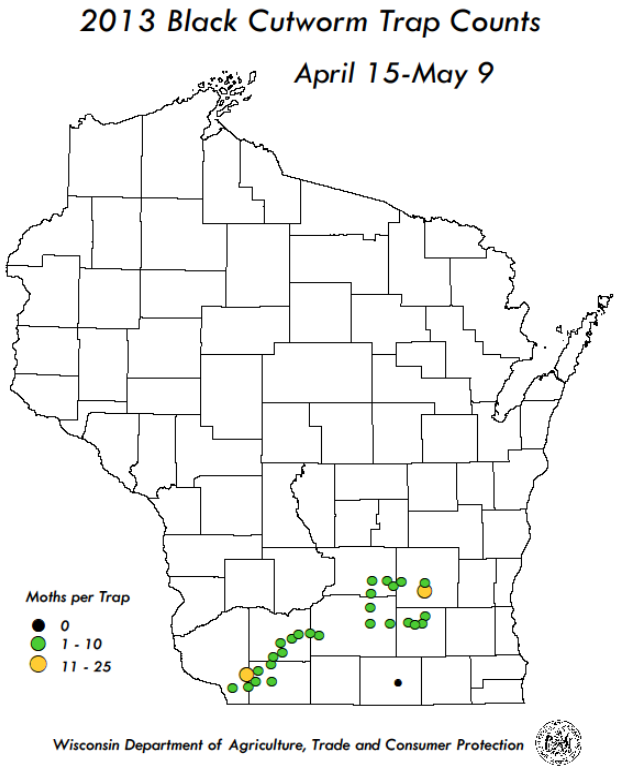
DEGREE DAYS JANUARY 1 - MAY 8

LOCATION	50°F	2012	NORM	48°F	40°F
Dubuque, IA	188	502	299	188	392
392Lone	171	495	—	160	358
Beloit	224	511	306	214	446
Madison	170	467	286	162	359
Sullivan	189	463	263	178	387
Juneau	158	428	—	160	342
Waukesha	154	370	—	150	332
Hartford	143	359	—	141	312
Racine	138	331	—	137	315
Milwaukee	132	318	223	130	297
Appleton	132	346	229	132	274
Green Bay	112	287	213	112	255
Big Flats	138	420	—	133	278
Hancock	142	404	273	139	282
Port Edwards	128	390	268	126	247
La Crosse	133	451	318	136	284
Eau Claire	112	375	270	110	219
Cumberland	97	304	222	90	181
Bayfield	66	185	—	55	137
Wausau	117	322	223	112	212
Medford	108	319	193	103	195
Crivitz	104	250	—	98	220
Crandon	107	257	177	97	190

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

CORN

BLACK CUTWORM: A spring migration that began four weeks ago has to date yielded 184 moths in 30 traps. The moths originated in the south-central U.S. and were carried into the state on storm fronts beginning April 15. Early-season migrations such as this one can be precursors to damaging cutworm populations in May and June when corn planting and weed control are delayed. Based on the low number of moths arriving in past weeks, the risk of cutworm damage to emerging corn appears low for now. This forecast could change with an influx of moths this month. The map on the following page summarizes cumulative moth counts from April 15-May 8.



EUROPEAN CORN BORER: Larval counts last September were historically low, averaging only 0.03 per plant statewide. In 10 previous years, the state average count was 0.17 borer per plant compared to an economic threshold of 1.0 per plant. Significant for 2013 is the fact that the record low population of overwintered larvae should produce an extremely small flight of spring moths in June, and a relatively low population of first generation borers. The 2012 state average corn borer count was the lowest documented since annual surveys began in 1942.

European corn borer moth www.sequella.co.uk

SEEDCORN MAGGOT: Emergence of adult flies from the soil began by April 27 in advanced southern areas of the state, following the accumulation of 200 degree days (base 39°F). As stated last week, outbreaks of this pest are sporadic but usually occur in years when seed germination is delayed by cold, wet soils, which could be the case in the central and northern areas of the state this spring.

TRUE ARMYWORM: The first indication of armyworm arrival was on April 29 near Janesville in Rock County. Trap counts since then have been low, although it is likely that more were blown into the state with black cutworm moths, leafhoppers and other migratory insects.

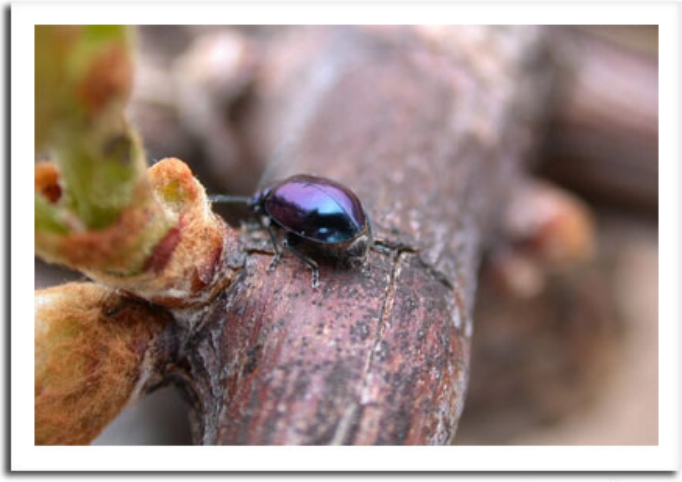
True armyworm moth www.extension.entm.purdue.edu

FRUITS

SPOTTED TENTIFORM LEAFMINER: Peak emergence of first brood moths is approaching in the southern and central counties. The apple orchards near Oneida in Brown County and New Berlin in Waukesha County reported high counts of 650-1,044 moths per trap in the past week. Counts elsewhere ranged from 1-490 per trap. The number of moths captured during the period defined as a “peak flight” varies by orchard but is generally in the range of 800-1,200 per trap per week.

REDBANDED LEAFROLLER: The first moths of the season were reported from April 25-May 1 as far north as Montello in Marquette County. Activity has accelerated in the last week, with counts ranging from 2-59 moths per trap. Peak flight activity, and corresponding high trap counts, should occur in southern and central orchards next week with the accumulation of 106-160 degree days (base 50°F).

GRAPE FLEA BEETLE: The spring migration from hibernation sites to grapevines is in progress. Biweekly scouting is suggested beginning at the bud swell stage and continuing through late May. Feeding by the overwintered adults may damage primary buds at this time of year, preventing shoot expansion and ultimately reducing grape yields. Plants on the margins of vineyards are at greatest risk of injury. Treatment is justified if more than 4% of buds are damaged.



Grape flea beetle www.vegedge.umn.edu/vegpest/grapes

VEGETABLES

IMPORTED CABBAGEWORM: The presence of these yellowish-white butterflies around field plantings and home gardens signals eggs are being laid on broccoli, cabbage, kale and other cole crops. Serious early-season infestations are rare, but should they develop, Btk products applied while the larvae are small can be very effective.

Imported cabbageworm butterfly butterfly.ucdavis.edu

CABBAGE MAGGOT: Cole crop transplants should be planted one week before or after peak fly emergence to avoid damage. According to the cabbage maggot degree day model, peak emergence can be anticipated in 1-2 weeks in the southern and central areas. This event generally takes place at 300 degree days (base 43°F), as lilacs are in full bloom. Broccoli and cauliflower plantings on light sandy soils are at highest risk of infestation and should be monitored closely this month for signs of maggot injury.

NURSERY & FOREST

COOLEY SPRUCE GALL ADELGID: Overwintered immature females are active and should be noticeable on the undersides of Colorado blue spruce branches near the base of new swelling buds. The females develop rapidly in early spring, producing eggs that soon hatch into nymphs. Their feeding stimulates new shoots to elongate into the pinecone-shaped galls that encompass the entire shoot. Control must occur before the females develop their white waxy coverings. The preferred treatment window is in early spring before new growth starts. The next treatment opportunity will be in fall after the last generation of nymphs has settled onto the foliage of Douglas fir or into bark crevices of Colorado blue spruce.

Cooley spruce gall adelgid (gall) PG Dan flickr.com

SPIDER MITE: Damage to a variety of ornamentals was observed during greenhouse inspections in Jefferson, Racine and Washington counties. Symptoms of mite injury vary according to species and host plant, but usually include stippling, bronzing, mottling and chlorosis of leaves. The species most commonly found in greenhouse settings are the two-spotted spider mite and

cyclamen mite. Control of these mites and others depends heavily upon an understanding of their biology, so distinguishing between mite species is critical.

FUNGUS GNAT: Nursery inspections in the last week found fungus gnats to be a common problem for greenhouse growers. These insects flourish in moist environments with decaying plant matter, making greenhouses ideal settings for infestations. The larvae feed directly on the roots of seedlings and potted plants and their injury to young roots promotes development of root and stem rots such as *Botrytis*, *Pythium* and *Verticillium*. Adult populations can be monitored with yellow sticky cards placed horizontally just above the growing media. Measures that reduce moisture, such as using proper watering techniques, selecting potting soil that drains well, and keeping floors free of soil and plant debris should help to minimize problems.

GYPSY MOTH: The annual trapping survey is scheduled to begin during the week of May 13 in southern Wisconsin and May 20 in the north. Approximately 19,000 traps will be placed in the western half of the state at densities of one trap per mile, one by two per mile, two per mile and three per mile. Delimitation traps to evaluate the effectiveness of last year's treatments or to identify reproducing populations will be set at a higher density of four traps per mile. Gypsy Moth Program specialists anticipate higher larval populations for Ashland and Bayfield counties, and possibly Clark and Jackson counties this year based on the results of egg mass surveys last fall.

Gypsy moth 1st instar larvae DATCP Gypsy Moth Program

THRIPS: This greenhouse pest was also noted during recent inspections. Affected plants were dahlia, gerbera daisy, New Guinea impatiens, primrose and passion vine, although greenhouse thrips have more than 100 different hosts. Their feeding results in stippled, silvery or bleached leaves and, in severe cases, yellowing and leaf drop. Similar to spider mites, control requires accurate identification of the species involved since some mites occur on many different plants but are considered damaging to only a few.

Thrips http://www.maine.gov/agriculture

APPLE INSECT & BLACK LIGHT TRAP COUNTS MAY 2 - 8

COUNTY	SITE	STLM[1]	RBLR[2]	CM[3]	OBLR[4]	AM RED[5]	YELLOW[6]
Bayfield	Keystone	—	—				
Bayfield	Orienta	—	—				
Brown	Oneida	650	14				
Chippewa	Chippewa Falls	—	—				
Dane	Deerfield	20	5				
Dane	Mt. Horeb	4	19				
Dane	Stoughton	11	10				
Dane	West Madison	8	9				
Dodge	Brownsville	—	—				
Fond du Lac	Campbellsport	0	7				
Fond du Lac	Malone	1	14				
Fond du Lac	Rosendale	37	26				
Grant	Sinsinawa	8	39				
Green	Brodhead	5	9				
Iowa	Mineral Point	119	59				
Jackson	Hixton	—	—				
Kenosha	Burlington	45	23				
Marathon	Edgar	—	—				
Marinette	Niagara	—	—				
Marquette	Montello	25	2				
Ozaukee	Mequon	1	6				
Pierce	Beldenville	0	0				
Pierce	Spring Valley	0	0				
Polk	Turtle Lake	—	—				
Racine	Raymond	74	0				
Racine	Rochester	490	39				
Richland	Hillpoint	240	20				
Walworth	East Troy	15	3				
Walworth	Elkhorn	2	2				
Waukesha	New Berlin	1044	0				

[1]Spotted tentiform leafminer; [2]Redbanded leafroller; [3]Codling moth; [4]Obliquebanded leafroller; [5]Apple maggot red ball; *Unbaited AM trap; **Baited AM trap; [6]Apple 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										
Dane	Mazomanie										
Fond du Lac	Ripon										
Manitowoc	Manitowoc										
Marathon	Wausau										
Monroe	Sparta										
Portage	Plover										
Rock	Janesville	0	18	0	0	0	0	0	0	1	0
Vernon	Coon Valley										
Walworth	East Troy										
Wood	Marshfield										

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