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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

Mild, unstable weather prevailed during the second week of May. Southerly winds brought warmer and increasingly moist air into the state, accompanied by scattered showers and thunderstorms throughout the week. Fieldwork advanced in between rains, although planting progress was limited by precipitation and ground saturation. Many acres of Wisconsin farmland are simply too wet for field operations. With only 16% of the corn crop sown as of May 9, the spring planting pace has been the slowest in more than a decade. Corn farmers in particular are concerned about diminishing yield potential now that the primary corn planting period (April 20-May 10) has expired, and some are opting for earlier maturing hybrids. While a significant portion of the state's corn crop has yet to be planted, other crops such as alfalfa and winter wheat are showing signs of improvement after a few days of summer-like temperatures.

LOOKING AHEAD

BLACK CUTWORM: Another substantial supply of migrants was blown into Wisconsin this week on strong southerly winds. The monitoring program registered 500 moths from May 7-11, for a total of 1,042 in 30 traps since early April. This is the largest migration documented in the last 10 years and localized infestations are are anticipated. Close monitoring of seedling corn and other susceptible crops will be required later this month and in June.

CODLING MOTH: The first moths of the growing season could appear in orchards next week. Before then, apple growers are advised to closely inspect traps for the look-alike, *Proteoteras aesculana*. This species, also referred to as the maple tip borer, emerges one week earlier than the codling moth and is slightly smaller (8 mm in length).

POTATO LEAFHOPPER: Surveys detected the first migrant adults on May 10 in Sauk County. Examination of historical issues of the Wisconsin Pest Bulletin since 1956 shows the first leafhoppers have arrived in Wisconsin as early as April 15 in 1981 and as late as June 7 in 1996. Based on the low numbers observed, it remains unclear if the individuals swept this week are representatives of a larger migration.

ALFALFA WEEVIL: Adults have become increasingly common and spring egg deposition is intensifying. Alfalfa fields, especially in the southern part of the state, should begin showing small larvae and other evidence of this insect by May 16.

PLUM CURCULIO: Migration into orchards is probable in the week ahead if mean daytime temperatures continue to exceed 60°F. Pyramid traps should be placed in the

immediate future and checked twice weekly during the 6-week adult emergence period.

GYPSY MOTH: Larval emergence began on May 9 in Dane, Rock and Vernon counties. The April 26 report of egg hatch in Green Bay appears to have been an anomaly. Phenological indicators of gypsy moth hatch include eastern redbud beginning bloom and saucer cup magnolia petal fall.

FORAGES

ALFALFA WEEVIL: Surveys in alfalfa found nothing unusual this week. Alfalfa weevil adults are appearing in greater numbers and oviposition has intensified. The first small larvae should be detectable by May 16.

TARNISHED PLANT BUG: Adults are more numerous than last week, but counts are still low. All surveyed fields in Grant, Green, Iowa, Juneau, Lafayette and Sauk counties had fewer than 6 per 50 sweeps.

Tarnished plant bug *Happy Peasant flickr.com*

PEA APHID: Populations remain very low. Counts rarely exceed 12 per 50 sweeps in the southern and west-central counties. This insect is of primary concern as stands are becoming established in early spring and around the time first crop alfalfa is harvested.

CORN

EUROPEAN CORN BORER: Pupation of overwintered larvae should begin late this week or early next, as mountain ash flowers. On the basis of last fall's

DEGREE DAYS JANUARY 1 - MAY 11

LOCATION	50°F	2010	NORM	48°F	40°F
Dubuque, IA	233	384	—	207	525
Lone Rock	211	376	—	192	479
Beloit	244	419	—	218	543
Madison	188	347	300	184	442
Sullivan	203	377	281	194	460
Juneau	172	338	—	165	405
Waukesha	148	309	—	142	371
Hartford	139	290	—	132	349
Racine	119	269	—	117	333
Milwaukee	112	255	216	108	314
Appleton	113	289	226	107	301
Green Bay	87	227	217	84	264
Big Flats	144	339	—	133	350
Hancock	138	340	294	128	339
Port Edwards	122	322	270	115	312
La Crosse	188	375	320	176	445
Eau Claire	149	322	271	143	362
Cumberland	136	282	240	125	329
Bayfield	93	177	154	77	260
Wausau	100	285	226	93	266
Medford	104	282	190	97	274
Crivitz	83	236	—	72	251
Crandon	88	247	194	76	243

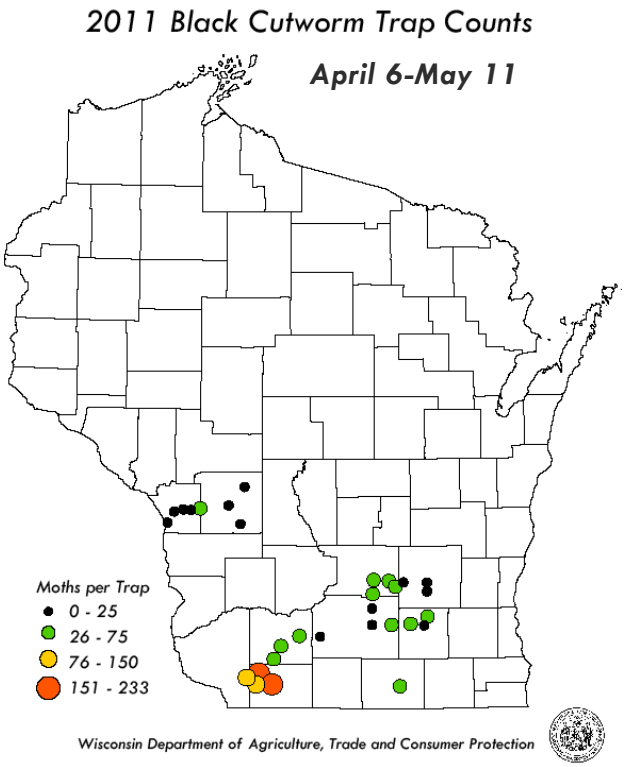
Method: ModifiedB50; Sine48; ModifiedB40 as of Jan 1, 2011. NORMALS based on 30-year average daily temps, 1971-2001.

historically low state average population (0.07 larva per plant), the spring flight will be extremely small again this year. Black light trappers concerned about this insect should have their traps in operation by May 18.

BLACK CUTWORM: Larvae resulting from the spring migration are expected to begin cutting corn seedlings 300 degree days (base 50°F) from the biofix date of April 11, or by May 22 near Janesville, May 31 near Eau Claire, and June 2 near Hancock. Field conditions are highly conducive to development of infestations this season, and based on the latest intense flight, the larval damage period could extend well into June.

As a general rule, black cutworm problems in Wisconsin are sporadic and localized. Outbreaks occur in years such as this one, when spring weather patterns favor their migration into the state and wet conditions delay planting and weed control. Corn fields with preexisting winter annual weed infestations and those affected by

spring flooding should be closely monitored in the next 1-3 weeks for developing problems.



SOYBEANS

BEAN LEAF BEETLE: The first beetle of the season was found in Green County alfalfa on May 11. Surveys in Grant, Iowa, Lafayette and Sauk counties were negative.

Bean leaf beetle Krista Hamilton DATCP

SOYBEAN APHID: Although it is far too early to forecast 2011 levels, it appears colonization of soybeans could occur slowly this season. Aphid densities last August were unusually low, resulting in fewer eggs laid on buckthorn in fall. This may translate into low aphid populations initially.

Despite a slow start, some Midwest extension entomologists are forecasting higher populations this year, based on the odd-numbered year theory. Factors that will influence the aphid outlook are weather conditions during their early summer migration and soybean planting dates. Late-planted soybeans generally exhibit higher aphid densities than early-planted beans.

Soybean aphids Krista Hamilton DATCP

FRUITS

SPOTTED TENTIFORM LEAFMINER: The flight has accelerated in the southern half of the state. Presumably, egg laying is heavy at this time. Sampling for first generation sapfeeder larvae is advised beginning 10-14 days after a peak flight (i.e. high trap count) has been registered. A count of 1 mine per 10 leaves signals the population is high and may increase to economic levels by the second generation.

APPLE SCAB: Orchard IPM Consultant John Aue notes that some scab monitors read after the rain event on Monday, May 9 indicated no infection period, although in some orchards leaf wetness hours were sufficient for spores to germinate. He advises growers to recheck leaf wetness hours to account for dew formation. In orchards where an infection period occurred, scab lesions should become apparent in 9-17 days.

REDBANDED LEAFROLLER: Pheromone trap counts as high as 270 moths during the May 5-11 reporting period

suggest the first flight has peaked at some sites. Egg laying is underway, and by next week small larvae should begin emerging from eggs laid on trunk and scaffold limb bark. A reliable technique for estimating egg hatch is to count 10-12 days from the first moth capture in pheromone traps.

MEADOW VOLE: An apple grower from Pierce County reports that meadow vole damage was extensive last winter and complete loss of several trees is expected. Damage by this rodent is common during winters with abundant snow cover and when vole food resources are limited.

CODLING MOTH: The first sustained capture of moths, referred to as the 'biofix', should soon occur in southern and central orchards. 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 13, the lower range of this threshold has been surpassed at a few southern locations, including Beloit, Dubuque, Lone Rock and Sullivan.

Codling moth ukmoths.org.uk

VEGETABLES

CABBAGE MAGGOT: Emergence of flies from the soil may have peaked around May 9 in the Madison area, according to the cabbage maggot degree day model. This event generally occurs around 300 degree days (base 43°F), as lilacs are in bloom. Preventive measures consist of chemical treatment directed at the adults during peak emergence/egg deposition, or delaying transplanting for 2-3 more weeks, until most of the population is in the non-damaging pupal stage.

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 Kim Davis & Mike Strangeland 2005

SEEDCORN MAGGOT: As degree day accumulations surpass 392 (simple base 3.9°C), peak adult emergence and oviposition should be anticipated. Similar to the cabbage maggot, damage by this pest can be averted by planting or transplanting 1-2 weeks from now, after most of the population has pupated.

WEEDS

CREEPING CHARLIE: Plants are in full bloom at southern locations where the degree day standard has surpassed 200 (base 50°F). Early spring is the optimal time to weed or treat infestations, while plants are flowering and most responsive to herbicides. Hand weeding or raking is an effective control for small problem areas, and should be done when soil is moist and the tiny rootlets are easily lifted from the ground.

HERBICIDE RESISTANCE: As herbicides are applied to fields this month, producers are advised to note the site of action or herbicide group number listed on the label. Rotating herbicides with different sites of action between pre-and post emergence applications, or combining two different site-of-action herbicides (with overlapping control spectrums) when tank mixing, is key to maintaining herbicide effectiveness. The integration of

mechanical, cultural and biological controls, in addition to herbicides, can also help eliminate resistant biotypes before they establish.

NURSERY & FOREST

TOBACCO RATTLE VIRUS: Greenhouse inspections in Pierce County found this increasingly common virus on dicentra, anemone 'Serenade', and epimedium 'Orange Queen' and 'Rubrum'. Symptoms vary widely, but may include ringspots, leaf mottling, stunting, crinkling, curling and general distortion. Preventing the introduction of TRV into nursery and greenhouse settings is the best management strategy. There are no effective controls for TRV, so destruction of symptomatic nursery stock is required.

TRV ringspots on Anemone 'Serenade' *Konnie Jerabek DATCP*

IMPORTED WILLOW LEAF BEETLE: Emergence of over-wintered adults was noted by May 11. The larvae, which feed gregariously in rows and skeletonize leaves, should be visible next week. Leaf injury caused by this pest is primarily an aesthetic problem and has little adverse effect on willows. In rare, high population situations, horticultural oils, *Bacillus thuringiensis* var. *tenebrionis*, or insecticidal soaps can be used against the early larval stages. Two generations occur annually in Wisconsin.

HEUCHERA RUST: Symptoms of this rust disease were observed on the coral bells cultivars 'Georgia Peach', 'Marmalade' and 'Obsidian' in a Pierce County nursery. The raised pustules with dark orange-red spores on the undersides of leaves are a good diagnostic indicator. Heuchera rust spreads rapidly under humid greenhouse conditions, and though it is not fatal, the pustules can severely distort foliage. It is recommended that retailers inspect incoming plants and cull any that appear to be infected.

Heuchera rust on Heuchera 'Obsidian' *Konnie Jerabek DATCP*

APPLE INSECT & BLACK LIGHT TRAP COUNTS MAY 5 - 11

COUNTY	SITE	STLM[1]	RBLR[2]	CM[3]	OBLR[4]	OBLR[5]	AM RED[6]	YELLOW[7]	GDD 50°F
Bayfield	Keystone	0	0						
Bayfield	Orienta	0	0						
Brown	Oneida	500	31						
Chippewa	Chippewa Falls	30	49						
Columbia	Rio	729	270						
Dane	Deerfield	800	91						
Dane	Mt. Horeb	20	148						
Dane	Stoughton	34	81						119
Dane	West Madison	57	53						
Dodge	Brownsville	0	15						
Fond du Lac	Campbellsport	55	50						
Fond du Lac	Malone	284	22						
Fond du Lac	Rosendale	—	—						
Grant	Sinsinawa	—	—						
Green	Brodhead	7	37						
Iowa	Dodgeville	—	—						
Iowa	Mineral Point	125	116						84
Jackson	Hixton	980	28						
Kenosha	Burlington	102	45						92
Marinette	Niagara	336	9						56
Marquette	Montello	36	30						
Ozaukee	Mequon	5	25						93
Pierce	Beldenville	5	30						
Pierce	Spring Valley	11	61						
Polk	Turtle Lake	0	0						86
Racine	Raymond	378	101						
Racine	Rochester	180	75						117
Richland	Hillpoint	82	72						
Sheboygan	Plymouth	19	94						
Walworth	East Troy	—	—						
Walworth	Elkhorn	—	—						
Waukesha	New Berlin	756	18						

[1]Spotted tentiform leafminer; [2]Redbanded leafroller; [3]Codling moth; [4]Obliquebanded leafroller EASTERN; [5]Obliquebanded leafroller WESTERN; [6]Apple maggot red ball; *Unbaited AM trap; **Baited AM trap; [7]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	—	—	—	—	—	—	—	—	—	—
Grant	Prairie du Chien	0	0	0	0	0	0	0	0	0	0
Manitowoc	Manitowoc	0	7	14	0	0	0	1	0	0	0
Marathon	Wausau	—	—	—	—	—	—	—	—	—	—
Monroe	Sparta	0	5	3	0	0	0	1	0	4	0
Rock	Janesville	0	20	0	0	0	0	0	0	0	0
Walworth	East Troy	0	21	5	0	0	0	0	0	2	0
Wood	Marshfield	0	4	3	0	0	0	0	0	0	0
Vernon	Coon Valley	—	—	—	—	—	—	—	—	—	—

[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.