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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

The weather in the past week consisted of warm, dry days and brisk nights. Clear skies and pleasant temperatures were a welcome change from the rainy, unsettled conditions that prevailed throughout June. Harvest of second crop alfalfa resumed across the state, with many growers reporting excellent quality and yields. Timely operations should help to subdue rising populations of potato leafhoppers that are now beginning to exceed economic levels in some fields. Crop conditions were rated as 80-89% good to excellent at the start of the week, although soils are still very moist from the excess precipitation last month. Corn in particular is developing rapidly and is already 80 inches tall in the southern counties. Warm summer temperatures predicted for the holiday weekend are expected to accelerate plant development into the reproductive stages and should incite emergence of a few key mid- to late-season pests.

LOOKING AHEAD

WESTERN BEAN CUTWORM: The annual flight of western bean cutworm moths is underway in southern and central Wisconsin, as far north as Portage County. Trap counts ranging from 1-78 moths at 21 of 144 monitoring locations probably represent 10-20% emergence of the population. Peak emergence can be anticipated from July 8-15 at most sites. Network cooperators are reminded to replace pheromone lures every three weeks during the major flight.

LATE BLIGHT: Environmental conditions are suitable for disease occurrence throughout much of the state. Although no late blight has been confirmed in Wisconsin yet this field season, it has been identified on potatoes in Michigan, southern Manitoba and southeastern North Dakota. Tomato and potato growers, whether commercial or organic, are encouraged to take appropriate measures to protect their crops.

CORN ROOTWORM: Damage in the form of lodging has become apparent in a few corn fields since the severe thunderstorms of last week, but the extent of larval infestation will not be evident until later this month. Larvae are primarily in the intermediate and late intars, and the first western corn rootworm beetles of the season were observed on July 1 in Richland County.

EUROPEAN CORN BORER: Pupation of first generation corn borers has started near Beloit, Lone Rock, Sullivan and other advanced locations. Black light traps could register the earliest moths of the summer flight by July 5. Surveys indicate that larvae from the spring flight are presently in the second-fifth instars. The treatment window for first generation larvae has closed statewide, with the exception of the far northern counties.

FORAGES

POTATO LEAFHOPPER: Reproduction in alfalfa has increased considerably in the past week, as evidenced by the high nymph-adult ratio. Counts are above economic thresholds in some Dane and Sauk County fields, where surveys found 0.1-3.1 per sweep. Although treatment could be justified for these fields, harvesting the second crop by next week is the preferred form of control.

ALFALFA WEEVIL: A few late-stage larvae still remain, but most have pupated and new adults are appearing in sweep net collections. Larval populations in second crop alfalfa have been reduced to less than 0.2 per sweep, and no further problems are anticipated this year.

PEA APHID: Numbers have not changed significantly since the last report. Sweep net counts of adults and nymphs in the southern and eastern areas are still very low and range from 0.1-1.8, with an average of just 0.4 per sweep. Pea aphids have shown a substantial decline since early June.

Pea aphid *ipm.iastate.edu*

CORN

EUROPEAN CORN BORER: Larvae from the spring flight of moths are generally in the intermediate to late development stages and evidence of their feeding has been observed in a few fields. Examination of grain corn in the south-central, southwest and central districts found second-fifth instar larvae in 8% of surveyed fields. Leaf feeding was apparent on a maximum of 15% of plants, and no economic populations were noted.

DEGREE DAYS JANUARY 1 - JUNE 30

LOCATION	50°F	2009	NORM	48°F	40°F
Dubuque, IA	1307	1027	—	1334	2218
Lone Rock	1262	987	—	1257	2141
Beloit	1371	1029	—	1399	2283
Madison	1229	965	1094	1253	2103
Sullivan	1277	1000	1001	1276	2150
Juneau	1205	957	—	1242	2065
Waukesha	1126	962	—	1166	1966
Hartford	1095	928	—	1142	1937
Racine	1059	875	—	1123	1899
Milwaukee	1028	869	921	1097	1859
Appleton	1086	830	970	1134	1932
Green Bay	966	744	935	1051	1793
Big Flats	1128	887	—	1125	1949
Hancock	1149	889	1093	1143	1975
Port Edwards	1092	847	1025	1108	1916
La Crosse	1252	969	1186	1267	2129
Eau Claire	1129	910	1057	1449	1979
Cumberland	1014	811	1004	1016	1814
Bayfield	748	566	722	759	1469
Wausau	998	735	951	1019	1797
Medford	997	760	851	1025	1800
Crivitz	926	686	—	959	1723
Crandon	900	645	789	892	1647

Method: ModifiedB50; Sine48; ModifiedB40 as of Jan 1, 2010. NORMALS based on 30-year average daily temps, 1971-2001.

CORN LEAF APHID: Colonies consisting of 10-30 aphids per plant are affecting approximately 5-10% of the corn plants in Adams, Juneau and Monroe counties. Close monitoring is recommended during the late whorl and pollen shed stages to assess densities and the rate of increase. Colonies of 50 or more aphids per plant on 50% of the plants may interfere with pollination.

TRUE ARMYWORM: Larval infestations have subsided due to pupation and chemical treatment of many fields, but there is a remote possibility for new infestations and isolated areas requiring treatment in the next few days. Of greater concern is the potential for problems by the subsequent generation of larvae appearing in 3-4 weeks.

SOYBEANS

ROSE CHAFER: Light leaf feeding injury attributed to this beetle was observed on 1-15% of plants in fields exam-

ined from June 28-July 1. The economic threshold for rose chafer, Japanese beetle, false Japanese beetle and other leaf feeding soybean pests is 20% defoliation between the bloom and pod-fill stages.

SOYBEAN APHID: This insect remains very scarce in Wisconsin soybeans, except in a few scattered fields. Surveys conducted this week in Adams, Dane, Fond du Lac, Juneau, Iowa, Monroe and Sauk counties showed extremely low densities. Only 2 fields in the Mauston area of Juneau County had moderate counts of 25-75 aphids per plant on 10-25% of the plants, and 69% of fields examined had no apparent colonies. Despite low populations thus far, soybean aphids require regular observation from early July through the late reproductive stages of soybean growth in August.

Soybean aphids ZeaMays flickr.com

FRUITS

APPLE MAGGOT: Emergence is escalating in some apple orchards, but not as much as expected under the favorable conditions of the past 2-3 weeks. High counts of 10 flies on an unbaited red sphere and 10 flies on an unbaited yellow sticky trap were reported from McFarland in Dane County and Keystone in Bayfield County in the past week, while most orchards registered no apple maggot activity. Yellow traps baited with ammonium acetate are effective for approximately one week, and should then be replaced or rebaited. Red sphere traps may be used with or without fruit essence lure throughout July and August.

FIRE BLIGHT: This disease of apple, mountain ash, ornamental crabapple, pear and other fruit trees is becoming increasingly prevalent. The threat from fire blight applies mostly to orchards in which terminal buds have not been set. An application of streptomycin within 24 hours of a severe weather event should reduce the risk of new infections.

SPOTTED TENTIFORM LEAFMINER: Sap feeder mines are appearing on the undersides of apple leaves. Orchardists concerned about this pest should apply controls soon, before larvae advance to the tissue feeder stage (visible on the upper leaf surfaces). The treatment threshold is 1 mine per leaf based on examination of 10 terminals and fruit spurs per tree on 2-3 trees per orchard block. Pheromone trap counts should begin to decline over the next two weeks, marking the end of the second flight.

SAN JOSE SCALE: First generation nymphs have been active in southern Wisconsin orchards for the last three weeks, and many have settled onto the fruits and leaves by now. Continued sampling by taping scaffold branches is advised to determine when hatch is complete and if control treatments applied last month were effective. Neonicotinoids, insect growth regulators or other materials directed against mobile crawlers are ineffective once the scales have begun to secrete their waxy covering.

WOOLLY APPLE APHID: These insects are colonizing leaf axils, terminal shoots and water sprouts. A variety of beneficial insects, including syrphid flies, gall midge larvae and parasitic wasps, have kept densities at low levels thus far, according to Orchard IPM Specialist John Aue. Nevertheless, weekly evaluations of aphid abundance and parasitism rates should continue through mid-July to determine the need for an insecticide this year.

GRAY MOLD: Raspberries and strawberries throughout the state have suffered from this fruit disease, exacerbated by wet weather. Fungicide sprays have not been effective because of frequent rains diluting the materials. The pick-your-own strawberry season ended as early as June 20 in La Crosse, Marathon, Monroe and several other counties.

VEGETABLES

SQUASH VINE BORER: The early-stage larvae of this insect are excavating the stems and runner vines, causing squash plants to wilt. Closer examination of the vines should reveal entrance holes from which their

sawdust-like frass is expelled. Varieties most susceptible to squash vine borer damage are 'Blue Hubbard', 'Boston Marrow' and 'Golden Delicious', while 'Butternut', 'Dickenson pumpkin' and 'Green Striped Cushaw' have shown some resistance.

CORN EARWORM: Low numbers of migrants have been collected in black light and pheromone traps at scattered sites since May 28. The main flight ordinarily does not occur until August, but extra attention to this species in sweet corn may be in order this month.

STRIPED CUCUMBER BEETLE: Extension personnel and vegetable growers are reporting considerable damage to cucurbits, especially in the southeast and west-central areas. Treatment may be justified for infestations of 4-5 beetles per 50 plants.

NURSERY & LANDSCAPE

HONEYLOCUST PLANT BUG: Damage to honeylocusts was found this week at nurseries in Dane, Dodge, Jefferson and Ozaukee counties. Heavy feeding by adults in June and July can result in leaf distortion, discoloration and stunted leaflets, but generally the most serious damage is caused by the nymphs early in the season. The optimal time to treat honeylocust plant bugs is 7-10 days after budbreak in May. Green-leaved cultivars, such as 'Sunset' or 'Shademaster', are less susceptible to injury than some of the yellow-leaved strains.

Honeylocust plant bug damage *Liz Meils DATCP*

ERIOPHYID MITE: Light infestations of this mite were observed on highbush cranberry viburnums in Dodge and Jefferson counties. Their pattern of feeding causes very distinct erineum galls—essentially a mass of leaf hairs containing thousands of tiny mites—to develop on the undersides of viburnum leaves. Damaged foliage usually wrinkles and turns reddish. Activity should subside later this month and no corrective action is needed.

VIBURNUM SHOOT SAWFLY: Nannyberry viburnums in Dane and Jefferson counties were exhibiting brown, withered terminal shoots caused by larvae of the viburnum shoot sawfly. The adult form is a small, black, wasp-like insect about $^1/_3$ inch long. All infested shoots should be pruned and destroyed to eliminate the larvae inside.

Shoot damage caused by viburnum shoot borer *Liz Meils DATCP*

FOREST

GYPSY MOTH: The adult flight period began in Madison this week and as far north as Wisconsin Dells. Official trap checks conducted as part of the annual trapping program are expected to start by July 12 for areas south of Highway 21 and about a week later for areas to the north. As of June 30, approximately 88% of the total 29,622 traps had been set. The last pheromone flake treatments of the year are planned for 53,735 acres in Bayfield and Douglas counties on July 8.

TRAPPING NETWORKS

BLACK LIGHT TRAPS: Reports indicate that true armyworm, spotted cutworm and western bean cutworm activity has intensified. Armyworm counts increased from 12-83 at Janesville, while Marshfield registered the high count of 60 spotted cutworms. The first western bean cutworm moths began appearing in traps this week.

APPLE INSECT & BLACK LIGHT TRAP COUNTS JUNE 25 - JULY 1

COUNTY	DATE	SITE	STLM[1]	RBLR[2]	CM[3]	OBLR[4]	OBLR[5]	AM RED[6]	AM YELLOW[7]
Bayfield	6/25-6/30	Keystone	0	0	4	8	—	*4	*10
Bayfield	6/25-7/01	Bayfield	—	—	—	—	—	—	—
Bayfield	6/21-6/28	Orienta	16	0	0	0	—	—	—
Brown	6/25-7/01	Oneida	—	—	—	—	—	—	—
Chippewa	6/25-7/01	Chippewa Falls 1	0	52	6	8	1	0	0
Chippewa	6/25-7/01	Chippewa Falls 2	—	—	—	—	—	—	—
Dane	6/25-7/01	Deerfield	481	86	6	2	—	0	0
Dane	6/25-7/01	McFarland	0	0	5	0	—	*10	0
Dane	6/24-6/30	Stoughton	340	115	7.5	0	—	*0	*4
Dane	6/25-7/01	West Madison	70	9	3	3	—	*1	0
Dodge	6/25-7/01	Brownsville	8	4	1.5	3	—	0	0
Fond du Lac	6/25-7/01	Campbellsport	200	32	0	10	—	—	—
Fond du Lac	6/25-6/30	Malone	1540	138	12	17	—	0	0
Fond du Lac	6/25-7/01	Rosendale	236	32	3	5	—	*1	0
Grant	6/25-7/01	Sinsinawa	—	—	—	—	—	—	—
Green	6/25-7/01	Brodhead	21	10	0	3	—	0	0
Iowa	6/25-7/01	Dodgeville	240	65	33	24	0	4	5
Iowa	6/25-7/01	Mineral Point	300	115	1	6	0	0	0
Jackson	6/25-7/01	Hixton	42	27	0	3	0	0	0
Kenosha	6/25-7/01	Burlington	1000	18	5	2.5	—	0	0
Marinette	6/25-7/01	Niagara	673	7	31	52	—	—	—
Marquette	6/21-6/27	Montello	27	0	0	0	—	—	—
Ozaukee	6/25-7/01	Mequon	700	49	16	21	—	**3 *3	—
Pierce	6/25-7/01	Beldenville	280	41	0	6	0	0	*1
Pierce	6/24-7/01	Spring Valley	382	94	1	5	0	—	—
Racine	6/25-7/01	Raymond	797	17	1	17	—	0	0
Racine	6/25-7/01	Rochester	560	125	6	4	—	*4	0
Richland	6/23-6/29	Hillpoint	735	113	1	2	1	0	0
Sheboygan	6/25-7/01	Plymouth	440	2	2	42	—	**2	1
Walworth	6/25-7/01	East Troy	50	15	0	0	—	0	0
Walworth	6/25-7/01	Elkhorn	50	14	0	5	—	0	0
Waukesha	6/25-7/01	New Berlin	540	17	9	11	—	0	0

[1]Spotted tentiform leafminer; [2]Redbanded leafroller; [3]Codling moth; [4]Obliquebanded leafroller EASTERN; [5]Oblique-banded leafroller WESTERN; [6]Apple maggot red ball; *Unbaited AM trao; **Baited AM trap; [7]Apple maggot yellow board.

COUNTY	DATE	SITE	ECB[1]	TA[2]	BCW[3]	SCW[4]	DCW[5]	CE[6]	CEL[7]	WBC[8]	FORL[9]	VCW[10]
Chippewa	6/25-7/01	Chipp Falls	19	5	0	2	10	0	8	0	0	0
Columbia	6/25-7/01	Arlington	0	1	0	2	0	0	4	0	2	0
Grant	6/25-7/01	Lancaster	5	0	0	0	0	0	0	0	5	0
Manitowoc	6/25-7/01	Manitowoc	—	—	—	—	—	—	—	—	—	—
Marathon	6/25-7/01	Wausau	—	—	—	—	—	—	—	—	—	—
Monroe	6/25-7/01	Sparta	8	0	0	0	6	0	6	78	0	0
Rock	6/25-7/01	Janesville	0	83	0	0	0	0	34	0	7	0
Walworth	6/25-7/01	East Troy	0	0	0	2	0	0	0	2	7	0
Wood	6/25-7/01	Marshfield	0	10	1	60	0	0	0	1	0	1
Vernon	6/25-7/01	Coon Valley	0	5	0	4	4	0	2	2	0	0

[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.