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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

Scattered showers and thunderstorms lingered throughout the week as a frontal boundary remained stalled over Wisconsin. High temperatures ranged from the 80s to lower 90s and humid conditions were experienced statewide. Isolated thunderstorms developed early in the afternoon on Wednesday and gradually became more widespread over the southern and central areas by evening. Some of the stronger storms caused minor damage in northern Columbia and Dodge counties. Seasonably warm temperatures promoted rapid phenological development of the corn crop, which continued to progress ahead of the normal pace. Overall, 83% of corn was reported in good to excellent condition, down 1 percentage point from last week but slightly better than the same time last year. Soybeans also improved with the heat and humidity, although concerns about white mold and other fungal diseases are increasing. Alfalfa growers are reporting considerable harvesting problems due to saturated field conditions.

LOOKING AHEAD

EUROPEAN CORN BORER: Pupation is underway. The first moths of the summer flight should begin appearing in back light trap collections next week. Most of the population in the southern and central counties is in the late instars and pupal stage. In the north-central and northwest areas, traps continue to register low to moderate numbers of spring moths.

JAPANESE BEETLE: Defoliation was encountered in soybeans in Dane, Monroe, Sauk and Vernon counties. The incidence of leaf feeding is increasing as more beetles emerge, but severity generally remains low. Densities of this insect can vary greatly between the field interior and border rows, emphasizing the importance of thorough inspection of all areas of corn and soybean fields before making control decisions. In most instances, soybeans can tolerate substantial defoliation without reduction in yield potential.

WESTERN BEAN CUTWORM: The annual flight is gaining momentum in central and south-central Wisconsin. Pheromone and black light traps registered significant activity at a few sites in the past week, with a high count of 550 moths near Sparta in Monroe County. Emergence of the western bean cutworm population is 20-50% complete in the southern half of the state. Egg deposition on corn and dry beans is intensifying.

CORN ROOTWORM: Beetles appeared this week in very low numbers in Dane, Columbia, La Crosse and Monroe counties. These insects will become increasingly abundant throughout July, with the peak of emergence expected by mid-August. If lodging occurs this month,

growers should closely examine the roots to determine whether the cause of injury was feeding by corn rootworm larvae or poorly developed root systems. Excess moisture may contribute to shallow root development in many corn fields.

Western corn rootworm beetle kd arvin flickr.com

CODLING MOTH: Larvae are presently in the late stages of growth, and now is an opportune time to check fruits to assess the efficacy of earlier treatments. Moth counts in pheromone traps varied from 1-26 for the period of July 2-8.

FORAGES

POTATO LEAFHOPPER: Populations in alfalfa are variable and not uniformly above treatment thresholds. Surveyed fields in the southwest and west-central counties contained 0.3-3.2 per sweep, with economic counts of 2.0 or more leafhoppers per sweep detected in about 20% of fields checked. Sweep net counts in the southeastern area were lower and ranged from 0.1-1.2. Nymph production has shown a marked increase in the past two weeks. Heavy populations have been reported in vegetable crops and a few southwestern Wisconsin apple orchards.

ALFALFA CATERPILLAR: Large numbers of butterflies were observed over alfalfa fields in Marathon, Monroe, Portage and Wood counties. The significance of these flights is not known, but high adult populations could produce damaging larval infestations in the third crop.

PEA APHID: Numbers continue to be very low in most areas, seldom exceeding 2.0 per sweep. The abrupt decline in pea aphids last month was probably caused by fungal entomopathogens, which commonly reduce high populations during periods of humid and wet weather.

DEGREE DAYS JANUARY 1 - JULY 8

LOCATION	50°F	2009	NORM	48°F	40°F
Dubuque, IA	1477	1140	—	1508	2458
Lone Rock	1433	1098	—	1451	2383
Beloit	1556	1132	—	1561	2538
Madison	1407	1077	1241	1435	2351
Sullivan	1459	1104	1252	1448	2403
Juneau	1384	1067	—	1423	2314
Waukesha	1304	1074	—	1346	2214
Hartford	1272	1039	—	1333	2186
Racine	1243	987	—	1296	2154
Milwaukee	1208	979	1067	1280	2110
Appleton	1259	944	1115	1321	2175
Green Bay	1132	847	1073	1231	2029
Big Flats	1291	989	—	1292	2183
Hancock	1313	996	1236	1311	2209
Port Edwards	1254	950	1163	1274	2148
La Crosse	1430	1088	1345	1447	2378
Eau Claire	1301	1027	1203	1324	2222
Cumberland	1181	915	1142	1185	2052
Bayfield	901	645	836	915	1693
Wausau	1153	832	1087	1189	2022
Medford	1154	856	976	1196	2027
Crivitz	1090	780	—	1137	1957
Crandon	1053	733	900	1059	1870

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

CORN

WESTERN BEAN CUTWORM: Moth emergence accelerated with the high temperatures of the past week and may have peaked in some areas. Degree day accumulations (base 50°F) through July 8 were 1,556 at Beloit, 1,407 at Madison, 1,243 at Racine, 1,313 at Hancock, and 1,153 at Wausau. Peak flight, or 50% emergence of the population, should occur around 1,422 degree days. Oviposition on corn and dry beans has been underway for two weeks and is intensifying with the latest hot weather. According to one report, as many as 50 egg masses per 400 plants were found in a corn plot near Spring Lake in southern Waushara County. Scouting and treatment of economic infestations (8% of corn plants

infested at 90-95% tassel emergence) should begin over the weekend or in the week ahead.

Western bean cutworm eggs *Mark Moore, Moore Communications*

CORN ROOTWORM: Beetles have made their first appearance in corn in the southwest and south-central areas. Counts are very low at this time, but can be expected to increase gradually over the next six weeks and peak by mid-August. One field in Sauk County that has been planted to corn for at least four consecutive seasons had an average of about 15% lodging, although the cause was not determined. With root systems shallower this year because of wet soils, lodging could occur even in corn fields without rootworm pressure.

CORN EARWORM: Migrants are appearing in black light and pheromone traps. Counts have been low and no larval infestations have been noted yet, but source populations in the southern U.S. are currently very high and any migration event could direct significant numbers into the state. Sweet corn growers are encouraged to follow the migratory insect forecast available at http://www.insectforecast.com/insectforecast/.

SOYBEANS

SOYBEAN APHID: Densities remain very low in Wisconsin soybeans. Reports and field observations indicate excessive rain and the threat of disease are causing more concern than aphids. Infestation rates this week varied from 0-60%, with an average of only 13%. Counts were below 41 aphids per 20 plants examined (2.1 per plant), and soybean aphids could not be found in 48% of surveyed fields. Historically, the first economic densities of 250 aphids per plant have been detected by the third week of July, so continued scouting is in order. Populations thus far have not exceeded economic levels.

WHITE MOLD: This soybean fungal disease could become very serious following the climatic conditions of the past several weeks. Early canopy closure, high relative humidity and surplus soil moisture all favor its development. Disease incidence can be especially severe when these conditions occur during the two weeks prior to peak flower. White mold appears as fluffy white mycelium, most prominently on the stems. Scouting at canopy closure for the tan, cup shaped apothecia (mushrooms) on the soil surface is strongly advised. Foliar fungicide sprays must penetrate the canopy in order to protect flowers.

White mold mycelium on soybean stem *Craig Grau UW-Madison*

FRUITS

APPLE MAGGOT: The emergence of flies continued this week. Oviposition on apples is occurring, especially in orchards that had severe hail problems late in the season last year. Hail-damaged fruits release volatiles that attract large numbers of flies from long distances. The high count for the last reporting period was 27 flies on a baited red sphere trap at Plymouth in Sheboygan County.

REDBANDED LEAFROLLER: Large flights of moths have been registered in many orchards since mid- to late June, but hatch of summer larvae is just beginning. Growers concerned about this pest should start scouting next week for larvae in the terminals and around the fruits.

POTATO LEAFHOPPER: Populations in a few orchards are very high. The nymphs are feeding in the terminals,

and this is where growers should scout for the tiny, bright green insects. Heavy leafhopper feeding causes leaf curling, reduced photosynthesis and may also stunt tree growth. The economic threshold of 1 nymph per leaf applies mainly to non-bearing apple trees.

NURSERY & LANDSCAPE

VENTURIA SHOOT BLIGHT: Quaking aspens at nurseries in Dane County are showing black, blighted shoots indicative of this fungal disorder. The initial symptoms appear in May as irregular brown or black spots on the upper leaf surfaces, which later expand to new shoots and cause the characteristic shepherd's crook. Secondary infection cycles can occur throughout the shoot elongation period, particularly during extended periods of wet weather. The fungus overwinters in infected shoots, so pruning the blighted shoots is recommended.

Venturia shoot blight on aspen *Liz Meils DATCP*

PHYLLOSTICTA LEAF SPOT: The light brown lesions with purple-red borders observed on serviceberry leaves in Dane County have been field diagnosed as phyllosticta leaf spot. Severe infection induces premature yellowing and shedding of leaves, but the disease is usually inconsequential. Controls consist of removing infected leaves, increasing air flow and avoiding overhead watering. Fungicide treatments are not advised.

ORIENTAL BEETLE: Emergence of this imported pest can be anticipated over the next several weeks in southeast and east-central Wisconsin, where nursery inspectors have deployed many pheromone traps at garden centers. Oriental beetle has been found in Brown, Kenosha, Milwaukee, Racine and Washington counties since detection trapping began in 2001. The introduction and spread of this exotic beetle has occurred primarily with movement of infested sod and nursery stock.

Oriental beetle *David Miyazaki flickr.com*

VEGETABLES

BACTERIAL WILT: Reports indicate this insect-transmitted disease is developing on cucumbers in Dane, Sauk and Walworth counties. The vectors are the striped and spotted cucumber beetles, mentioned in previous bulletin issues. Treatment is justified for infestations of 4-5 beetles per 50 plants.

CUCURBIT DOWNY MILDEW: This disease has been verified for the first time this season in Columbia County. Other states reporting outbreaks since mid-June include Maryland, Michigan, Ohio, New York and Ontario, Canada. Disease development is favored by warm, rainy weather and high relative humidity. Early detection and preventive fungicide applications are critical for suppressing epidemics. The ipmPIPE website at http://cdm.ipmpipe.org provides current downy mildew forecasts.

FOREST

GYPSY MOTH: Recent heavy rains washed out many roads, preventing seasonal workers from accessing trapping areas. Nevertheless, trap deployment is expected to be complete by the end of the week. As of July 7, trappers have set 94% of the total of 29,622 traps. Official trap checks for male gypsy moths will start by July 12 in areas south of Highway 21. Moth flight is underway as far north as Clark County.

APPLE INSECT & BLACK LIGHT TRAP COUNTS JULY 2 - 8

COUNTY	DATE	SITE	STLM[1]	RBLR[2]	CM[3]	OBLR[4]	OBLR[5]	AM RED[6]	AM YELLOW[7]
Bayfield	7/02-7/08	Keystone	0	10	6	11	—	*3	*7
Bayfield	7/02-7/08	Bayfield	—	—	—	—	—	—	—
Bayfield	6/28-7/06	Orienta	26	1	0	5	—	0	0
Brown	6/25-7/08	Oneida	800	19	16	0	—	0	0
Chippewa	7/02-7/08	Chippewa Falls 1	0	31	6	12	2	0	0
Chippewa	7/02-7/08	Chippewa Falls 2	—	—	—	—	—	—	—
Dane	7/02-7/08	Deerfield	378	47	3	0	—	*2	0
Dane	7/02-7/08	McFarland	0	0	0	0	—	*12	0
Dane	7/01-7/07	Stoughton	71	49	1	0	—	0	*4
Dane	7/02-7/08	West Madison	151	62	1	0	—	0	0
Dodge	7/02-7/08	Brownsville	—	—	3	2	—	0	*2
Fond du Lac	7/02-7/08	Campbellsport	250	70	3	4	—	—	—
Fond du Lac	7/02-7/08	Malone	525	80	15	10	—	0	0
Fond du Lac	7/02-7/08	Rosendale	196	24	5	4	—	*2	*1
Grant	7/02-7/08	Sinsinawa	—	—	—	—	—	—	—
Green	7/02-7/09	Brodhead	7	22	0	1	—	0	0
Iowa	7/02-7/08	Dodgeville	391	26	26	1	6	0	0
Iowa	7/02-7/08	Mineral Point	266	83	0	14	—	0	0
Jackson	7/02-7/08	Hixton	32	0	1	0	6	0	*1
Kenosha	7/02-7/08	Burlington	1300	15	4	0	—	*1	0
Marinette	7/02-7/08	Niagara	948	18	24	28	—	*1	0
Marquette	6/28-7/04	Montello	576	41	4	0	—	0	0
Ozaukee	6/30-7/05	Mequon	400	21	8	9	—	**12 *1	—
Pierce	7/02-7/08	Beldenville	190	6	2	0	—	0	0
Pierce	7/01-7/08	Spring Valley	48	64	1.5	0	0	0	0
Racine	7/02-7/08	Raymond	675	110	15	12	—	0	0
Racine	7/01-7/08	Rochester	350	135	6	4	—	*9	1
Richland	7/02-7/08	Hillpoint	560	110	0	12	2	0	0
Sheboygan	7/02-7/08	Plymouth	864	96	16	11	—	**27	0
Walworth	7/02-7/08	East Troy	30	24	0	10	—	0	0
Walworth	7/02-7/08	Elkhorn	100	8	0	6	—	0	0
Waukesha	7/02-7/08	New Berlin	500	24	8	14	—	*1	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 trap; **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	7/02-7/08	Chipp Falls	12	0	0	0	10	0	3	0	0	0
Columbia	7/02-7/08	Arlington	0	44	6	1	0	0	23	6	2	0
Grant	7/02-7/08	Lancaster	—	—	—	—	—	—	—	—	—	—
Manitowoc	7/02-7/08	Manitowoc	—	—	—	—	—	—	—	—	—	—
Marathon	7/02-7/07	Wausau	2	6	0	8	0	2	2		3	0
Monroe	7/02-7/08	Sparta	—	—	—	—	—	—	—	550	—	—
Rock	7/02-7/07	Janesville	0	32	1	0	0	0	10	0	1	0
Walworth	7/02-7/08	East Troy	0	13	16	0	0	0	0	6	4	0
Wood	7/02-7/08	Marshfield	57	66	4	58	1	1	19	12	14	1
Vernon	7/02-7/08	Coon Valley	4	21	7	8	0	0	14	8	2	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.