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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

Mostly dry, seasonably warm weather favored fieldwork and crop development during the week. Much of the state experienced normal to above-normal temperatures, accelerating growth of emerging corn and soybeans that had been delayed by this spring's relatively cool weather. Conditions were very suitable for alfalfa harvesting, weed management and other field activities. Alfalfa producers harvested an additional 21% of the first crop last week, 46% ahead of last year's progress and 18% ahead of the five-year average. The condition of alfalfa remained fair to good. Soybean planting is virtually complete on the acreage across Wisconsin and reports indicate that 80% of the crop has emerged. Warmer temperatures also stimulated insect development and activity, resulting in increased numbers of potato leafhoppers, armyworms and soybean aphids. Pest pressure should intensify with the heat and humidity predicted for the next week.

LOOKING AHEAD

APPLE MAGGOT: Adult emergence is expected to begin at advanced southern locations before the end of the month. Visual traps should be placed at this time to detect the first flies of the season, which could appear on traps by June 27 in Rock County, June 30 in Dane County, and July 6 in Racine and Kenosha counties. This fruit fly, potentially the most damaging insect in Wisconsin apple orchards, can be differentiated from similar species by an F-shaped wing banding pattern and a prominent white spot on the thorax.

SOYBEAN APHID: The first appearance of this insect was noted on June 9 in Dane County. Surveys of V1-V3 soybeans in the south-central and southeast counties from June 15-18 found alates and nymphs in 15 of 30 fields examined. Densities already are at moderate levels in a small percentage of fields. An occasional plant or group of plants in fields in Dane, Columbia, Jefferson and Rock counties was infested with 11-300 aphids per plant. The economic threshold for this pest remains at 250 per plant based on examination of 20-30 plants per field.

CORN ROOTWORM: Degree day accumulations are appropriate for 50% larval emergence to occur in the southwest and south-central counties next week. The corn rootworm phenology model predicts this event for 684-767 degree days (base 52°F). Damage by larvae should become visible in heavily infested fields soon, particularly if there are severe winds or thunderstorms. The first adults of the western species normally appear by July 4.

WINTER CUTWORM: Significant flights of moths may develop before by late June in the east-central and northeast areas given the unusually high numbers of

larvae observed last winter. The first moths of the season were registered on the night of June 16 at the western Dane County black light trap location. Trap collections should be monitored through early July for the adult form, a large, light brown moth with orange-yellow hindwings and a 3-inch wingspan.

Winter cutworm moth www.piccies.flybywire.org.uk

FORAGES

ALFALFA WEEVIL: Larval populations in alfalfa have declined considerably in the last two weeks, with 0.2 per sweep being the typical count. Some carryover of larvae was noted in a few regrowth fields in Columbia County where counts ranged from 1.9-2.5 per sweep and 40-50% leaf tip injury was observed. Most of the larvae collected by sweeping are in the late instars and should not feed much longer. Pupation is expected to begin in southern areas of the state where 814 degree days (base 48°F) are surpassed next week.

POTATO LEAFHOPPER: Nymphs are appearing in alfalfa fields in the southern counties. Populations remain below economic thresholds in 10-12 inch alfalfa, with a few exceptions. One field each in Dane and Sauk counties contained an average of 2.1 and 2.6 per sweep, respectively. Treatment could be justified in these fields. Counts in other areas of the south-central and southeast districts were below 1.0 per sweep. Close observation of second growth alfalfa is advised this month.

PEA APHID: Surveys indicate that this insect is still very numerous in alfalfa in the southern and east-central areas. Representative counts in Columbia, Dane, Dodge, Fond du Lac, Jefferson and Rock counties range from 2-59 per sweep. Winged forms comprise a smaller percentage of the population than previously. Chemical controls have been applied to alfalfa and peas in some instances.

DEGREE DAYS JANUARY 1 - JUNE 18

LOCATION	50°F	2008	NORM	48°F	40°F
Dubuque, IA	737	761	—	782	1421
Lone Rock	707	691	—	737	1351
Beloit	738	793	—	784	1423
Madison	681	679	840	725	1325
Sullivan	714	746	839	754	1374
Juneau	670	700	—	711	1304
Waukesha	669	668	—	713	1315
Hartford	639	645	—	682	1266
Racine	585	595	—	629	1201
Milwaukee	584	579	680	626	1194
Appleton	552	600	729	575	1121
Green Bay	479	541	700	506	1021
Big Flats	626	626	—	639	1206
Hancock	621	628	845	621	1187
Port Edwards	589	586	785	605	1152
La Crosse	689	671	910	693	1329
Eau Claire	644	583	807	658	1252
Cumberland	572	485	762	539	1094
Bayfield	374	338	539	340	777
Wausau	495	516	717	501	1010
Medford	523	480	640	513	1045
Crivitz	441	485	—	446	941
Crandon	427	448	606	403	875

Method: ModifiedB50; Sine48; ModifiedB40 as of Jan 1, 2009. NORMALS based on 30-year average daily temps, 1971-2001.

PLANT BUGS: Surveys of alfalfa detected low numbers of adults and nymphs in the past week. Counts varied from 0.1-1.5 per sweep in the south-central and southeast counties and averaged 0.4 per sweep. These numbers are well below the economic threshold of 5 plant bugs per sweep.

CORN

TRUE ARMYWORM: Surveys of V4-V6 fields in the east-central, southeast and south-central counties revealed very light armyworm infestations, with leaf feeding noted on 1-9% of the corn plants. Larvae in Dane County measured 1-1¼ inches long on June 18. Although field populations presently are below economically significant

levels, continued scouting for localized outbreaks is recommended. Several black light traps are registering very high numbers of moths.

True armyworm leaf feeding Krista Hamilton DATCP

EUROPEAN CORN BORER: Egg deposition and larval hatch are occurring in southern Wisconsin. Minor injury attributed to 1st instar larvae was observed on 1-12% of plants in the fields examined. Most surveyed fields (92%) had no detectable larval population. The peak in moth activity theoretically has occurred in the southern and west-central areas, according to the degree day model available for this insect. Egg deposition by female moths should continue to intensify in the next week if warm nightly temperatures prevail.

STALK BORER: Larvae ranging in size from ¾-1¼ inches were found to have caused moderate damage to a small percentage of plants in the margins of corn in Columbia, Dane, Fond du Lac, Jefferson, Rock and Washington counties. None of the infestations extended into fields further than is normally expected of this insect. Approximately 10% of the larval population will have migrated from grasses by 1,400 degree days (base 41°F) or June 26 near Madison. Spot treatment is warranted if more than 10% of plants are damaged and should be made before the larvae have tunneled into the stalks.

WESTERN BEAN CUTWORM: The installation of pheromone traps is underway in Adams, Green Lake, and Marquette counties where high numbers of moths were captured in the last several years. About 59 traps also were placed at locations in Dane, Dodge, Fond du Lac, Grant, Iowa, Richland and Sauk counties. Persons interested in participating in the trapping network should email Krista Hamilton at krista.hamilton@wi.gov or call 1-866-440-7523. Please supply your name, address, telephone number, and indicate the number of traps to be placed. Results of this survey will be analyzed and reported in subsequent issues of this bulletin.

SOYBEANS

BEAN LEAF BEETLE: Minor defoliation was noted in some southern Wisconsin soybean fields. Less than 5% of the plants were affected in fields surveyed in Columbia, Dane and Jefferson counties, and no more than 1-2 adults per 25 feet of row were observed. Treatment is usually justifiable at about 40% defoliation or 39 beetles per foot of row during the vegetative stages.

SOYBEAN APHID: A report from Ag Site Crop Consulting indicates that aphids began colonizing soybean fields by June 9 in Dane County and June 10 in eastern Sauk County. Visual surveys of V1-V3 soybeans from June 15-18 found densities of 1-300 aphids per infested plant in 50% of fields checked in the south-central and southeast counties. Near Afton in Rock County, approximately 68% of the plants were infested with as many as 52-300 alates and nymphs per expanding trifoliate. Soybean growers should begin monitoring fields for developing problems.

Soybean aphids Krista Hamilton DATCP

FRUITS

CODLING MOTH: The peak of the first flight of codling moths has occurred in most southern and central orchards. Economic counts of 5 or more moths per trap per week were registered at 15 of 26 apple orchards during the June 12-18 reporting period. The weekly high

count of 71 moths was reported from Dodgeville in Iowa County. Egg hatch is about 50% complete in advanced southern areas such as Beloit where 713 degree days (base 50°F) recently were surpassed.

REDBANDED LEAFROLLER: Pheromone trap counts are likely to increase in the week ahead as the moths of the second flight begin to emerge in southern Wisconsin. Trap counts were very low in the past week, ranging from 0-4 with an average of 1 moth per trap.

VEGETABLES

STRIPED CUCUMBER BEETLE: Reports indicate a low to moderate incidence of adults on cucurbits near Malone in Fond du Lac County, with extensive feeding injury to plants in the edge rows of fields. Traps counts of 1-12 beetles suggest that the adult population is fairly low at this time. The East Troy, Bourbonnais and Poplar Grove, IL trap sites all reported zero beetles from June 12-18.

CABBAGE LOOPER: Low counts ranging from 3-7 moths in pheromone and black light traps signal that a very light flight is in progress. However, the peak egg deposition period cannot be predicted based on the low numbers reported this month. Larvae should be detectable in cabbage fields by early to mid-July.

FLEA BEETLES: County Extension personnel and cooperators are reporting considerable damage to arugula, bok choy and various other vegetables. In the St. Croix County area, leafy greens in home gardens are being fed upon to a significant degree. Chemical treatment is advisable when beetles are present and plants show severe feeding injury.

Flea beetles feeding on cauliflower *www.omafra.gov.on.ca*

WEEDS

VENICE MALLOW: Small seedlings have begun appearing in southern Wisconsin soybean fields. This species emerges later than most weeds and has exceptionally hardy seeds that remain viable for 50 years. Although Venice mallow is relatively uncommon in field crops, these characteristics make it capable of spreading rapidly. Most infestations can be effectively managed with herbicide application timed for late spring.

Venice Mallow *Clarissa Hammond DATCP*

CORN & SOYBEAN WEED SURVEYS: Surveys of weed pressure and composition in corn continued for the third and probably final week. Approximately 70% of surveyed corn fields have been treated with post-emergence herbicides, and the few remaining untreated sites are moderately to heavily infested. Emphasis has shifted to soybeans now that most corn acreage is beyond the critical period of weed control (i.e. the interval in which irreversible yield losses occur before crops are large enough to compete aggressively). By contrast, many soybean fields are just entering the critical period.

COMMON LAMBSQUARTERS: This weed remains prevalent in many corn and soybean fields. Plants were observed at densities of 6-50 plants per sq. meter at 91% of corn sites and 82% of soybean sites. Individual plants in soybeans were slightly more advanced than those in corn, measuring 4 inches or taller.

GIANT RAGWEED: Surveys indicate that this weed is more common in Wisconsin soybeans this spring than in corn. Plants varying in height from 4-8 inches were noted in 36% of soybean fields and 24% of corn fields exam-

ined this week. Population densities in soybeans were 1-5 plants per sq. meter. At such densities, 10-33% yield loss can occur.

GRASSES: Grasses were observed in 67% of corn fields and 46% of soybean fields surveyed from June 9-16. The average height of those plants measured was 8 inches and 6 inches, respectively. Densities in both corn and soybeans ranged from 6-50 plants per sq. meter. One exceptionally grassy field in Dodge County contained an extremely high density of 500 or more plants (greater than 20 inches tall) per sq. meter. Yield loss can be expected at this location.

NURSERY & LANDSCAPE

EUONYMUS CATERPILLAR: An unusually heavy infestation of this insect was reported from the Grafton area of Ozaukee County. Larvae were near maturity and their webs had enveloped the entire tree. Village of Grafton workers removed the defoliated tree on June 12.

RED SPOT: Peonies at nurseries in Jefferson, Ozaukee, Rock, Washington and Winnebago counties were infected with this disease, also known as leaf blotch or measles. Symptoms include small, circular, red or purple spots or “measles” which appear on upper leaf surfaces shortly before bloom and later on the undersides of leaves. The lesions enlarge rapidly and merge to form large, irregular blotches as leaves mature. This disease also can infect stems, flowers and seed pods. Red spot may be controlled by cutting back all old growth to ground level in fall or early spring, before new shoot growth appears. Fungicide treatments, although seldom warranted, should be applied to the soil around plants in spring, just before shoots emerge through the soil. A second post-emergence application may be needed to obtain sufficient control.

Red spot on peony leaves *Liz Meils DATCP*

ROSE RUST: The rose variety ‘Carefree Sunshine’ in Sawyer County was showing leaves with bright orange, powdery pustules indicative of this fungal disease. Because rose rust requires only one host to complete its life cycle, it can spread rapidly through holding areas of potted roses. The fungus overwinters primarily in rose stems and foliage, so thorough removal and destruction of infected leaves and debris are suggested control measures. Fungicides may be applied as new leaves emerge.

Rose rust *Konnie Jerabek DATCP*

PSEUDOMONAS BLIGHT: This blight, identified by irregular or circular dark lesions surrounded by yellow margins or “halos”, was observed on the leaves of potted lilacs in Ozaukee County. Bacterial blight is characterized by withered leaves, shoots, and occasionally flower

clusters. Lesions on the petioles and shoots cause the symptom referred to as a "shepherd's crook". White-flowered lilac varieties generally are most susceptible. The integration of proper sanitation, pruning infected twigs several inches below the damaged tissue, and promoting increased air circulation should alleviate this problem.

Pseudomonas blight of lilac *Peggy Sellers www.ppdl.org*

CRANBERRIES

CRANBERRY REPORT: Warmer temperatures experienced in Wisconsin in the past week caused cranberry development to accelerate. Degree day accumulations remain behind normal levels by as much as 29% in the central bog areas and 35% in the northern bogs, but flowering has commenced around ditch levels. The majority of beds are in the hook to pre-bloom stages and perhaps 7-10 days from full bloom. Honeybee hives have been placed in anticipation of the bloom period. Increased pest insect activity also has become evident with the more rapid accumulation of heat units.

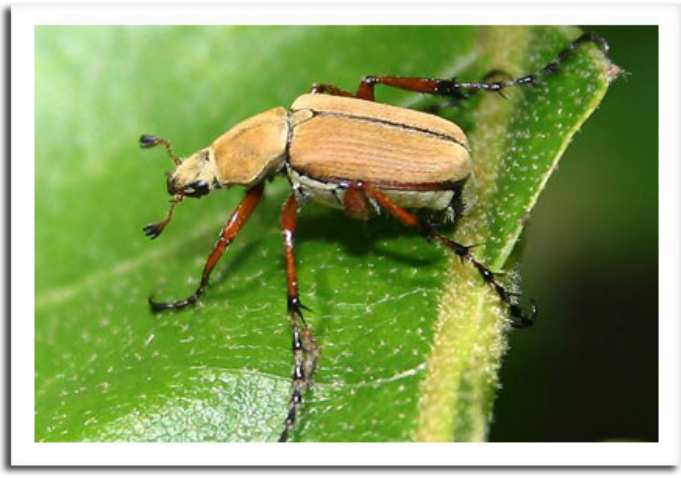
CRANBERRY PESTS: Traps distributed in the cranberry growing areas continue to register a diversity of pest insects. Counts of JUNE BEETLES (white grub adults) increased from an average of 75 per trap during the first week of June to 82 per trap last week. The ROSE CHAFER was observed for the first time this season on June 10, and counts currently average 50-75 per trap in a 3-day period. Flights of both the BLACKHEADED FIREWORM and CRANBERRY FRUITWORM adults were suppressed by low nightly temperatures two weeks ago, but average counts of 12 and 7 moths, respectively, were documented in the last reporting period.

TRAPPING NETWORKS

BLACK LIGHT TRAPS: The expected increase in European corn borer numbers was observed at some black light trap locations in the past week. Counts for the June 12-18 reporting period ranged from 0-10 moths per trap, with a total of 24 moths captured at 7 sites (average 3.4 per trap). Moths are being caught with regularity as far north as Marshfield in Wood County. It is probable that the emergence of adults will continue for another week or two.

True armyworm activity also has intensified. Adults were numerous in trap collections at Janesville and Marshfield. Egg deposition on grasses and small grains is expected to be heavy at this time. Large numbers of moths reported since early June are an indication of a potentially large larval population which may or may not materialize.

The spotted cutworm count increased sharply from 3 to 51 moths per trap at Marshfield and from 1 to 47 at Arlington. Low numbers of this species have been reported from several trap sites during the last 2-3 weeks.



Rose chafer *Tony DiTerlizzi bugguide.net*

APPLE INSECT & BLACK LIGHT TRAP COUNTS JUNE 12-18

COUNTY	DATE	SITE	STLM[1]	RBLR[2]	CM[3]	OBLR[4]	OBLR[5]	AM RED[6]	AM YELLOW[7]
Bayfield	6/12-6/18	Keystone	0	0	0	0			
Bayfield	6/12-6/18	Bayfield Apple	36	—	26	—			
Bayfield	6/12-6/17	Erickson	700	0	4	0			
Bayfield	6/12-6/18	Hauser	—	—	2	—			
Bayfield	6/08-6/15	Orienta	43	0	0	0			
Brown	6/12-6/18	Oneida	27	0	5	4			
Chippewa	6/12-6/18	Chippewa Falls 1	10	0.66	5.1	0	1		
Dane	6/11-6/18	Deerfield	164	0	10	11			
Dane	6/12-6/18	McFarland	0	0	30	5			
Dane	6/12-6/18	Stoughton	60	2	8	4	0		
Dane	6/12-6/18	West Madison	40	0	10	34			
Dodge	6/12-6/18	Brownsville	4	0	0.5	1			
Fond du Lac	6/12-6/18	Campbellsport	0	0	0	3			
Fond du Lac	6/12-6/18	Malone	15	0	8	38			
Grant	6/12-6/18	Sinsinawa	—	—	—	—			
Green	6/12-6/18	Brodhead	—	—	—	—			
Iowa	6/12-6/18	Dodgeville	332	0	71	4	11		
Iowa	6/12-6/18	Mineral Point	10	0	2	5		2 PC	
Jackson	6/12-6/18	Hixton	20	0	1	14	0		
Kenosha	6/12-6/18	Burlington	25	0	3	37		0 PC	
Marinette	6/12-6/18	Niagara	35	1	13	0			
Marquette	6/12-6/18	Montello	12	2	1	0		0 PC	
Ozaukee	6/11-6/17	Mequon	10	0	2	3			
Pierce	6/12-6/18	Beldenville	40	2	20	0			
Pierce	6/11-6/18	Spring Valley	84	1	9	0	3	0 PC	
Racine	6/12-6/18	Rochester	120	0	11	50		0 PC	
Richland	6/10-6/17	Hillpoint	14	0	18	2			
Richland	6/12-6/18	Richland Center	—	—	—	—			
Sauk	6/12-6/18	Baraboo	—	—	—	—			
Sheboygan	6/12-6/18	Plymouth	18	2	7	3			
Walworth	6/12-6/18	East Troy	30	0	1	24			
Walworth	6/12-6/18	Elkhorn	7	4	0	15			

[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 red ball; **Baited red ball; [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	6/10-6/16	Chipp Falls	4	0	0	5	0	0	0	0	0	0
Columbia	6/11-6/17	Arlington	5	10	0	47	0	0	3	0	0	0
Dane	6/11-6/17	Mazomanie	10	5	0	3	0	0	0	0	0	0
Grant	6/11-6/18	Lancaster	0	7	0	5	0	0	0	0	0	0
Manitowoc	6/11-6/18	Manitowoc	0	21	0	5	0	0	0	0	1	0
Marathon	6/11-6/18	Wausau	—	—	—	—	—	—	—	—	—	—
Monroe	6/11-6/18	Sparta	—	—	—	—	—	—	—	—	—	—
Rock	6/11-6/18	Janesville	2	1135	0	3	0	0	3	0	1	0
Walworth	6/11-6/18	East Troy	—	—	—	—	—	—	—	—	—	—
Wood	6/11-6/18	Marshfield	3	95	0	51	0	0	6	0	1	5

[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.