Volume 56 No. 07 June 09, 2011

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

Record-setting heat accelerated crop emergence and development across the state. Southwesterly winds early in the week pushed temperatures into the 90s and lower 100s, before a passing cold front on Wednesday brought storms and much cooler temperatures. Many locations, including Eau Claire, Madison, Milwaukee, Rhinelander and Shawano, registered afternoon highs of 95-105°F on Tuesday. Periodic light showers throughout the week maintained adequate soil moisture for corn and soybeans, and aside from intense heat, the weather was very suitable for alfalfa harvesting, weed management and other fieldwork. Alfalfa producers harvested an additional 27% of the first crop, for a total of 34% as of June 6. Soybean planting is nearly complete and 35% of the crop has emerged. High temperatures also stimulated insect development and reproduction, resulting in increased pest pressure in field crops.

LOOKING AHEAD

EUROPEAN CORN BORER: Moths are depositing eggs on vegetables and weed hosts at southern and central locations where 450 degree days (base 50°F) were recently surpassed. Snap beans, lima beans, peppers and potatoes are at increased risk of infestation since corn taller than 18 inches is not yet widely available. The first egg masses in corn were noted on June 8 in Richland County.

SOYBEAN APHID: Surveys in the past week found aphids in two La Crosse County soybean fields. Densities were very low and ranged from 2-6 per infested plant on no more than 5 per 100 plants examined. The initial colonization of most Wisconsin soybeans can be anticipated by late June.

EASTERN TENT CATERPILLAR: Many tents are now vacant and pupation has begun. Complete defoliation of individual roadside trees is apparent in the south-central and central areas. The first adults should begin collecting in black light traps by June 14, following the accumulation of 725 degree days (base 50°F).

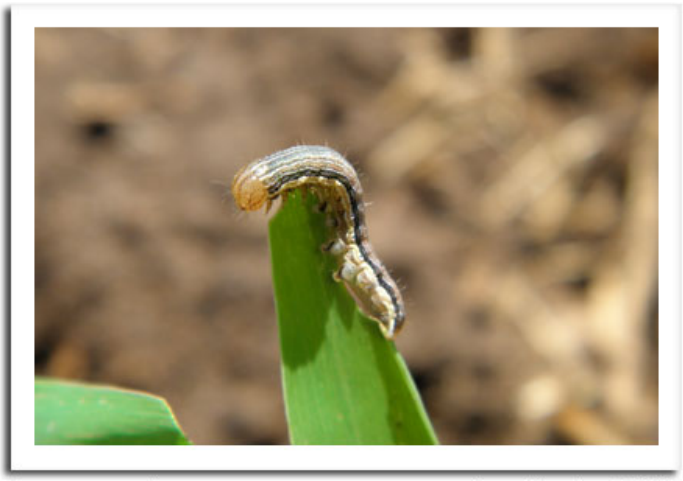
POTATO LEAFHOPPER: Nymphs are appearing in alfalfa in the southern and west-central counties. Populations are well below the economic threshold of 1.0 per sweep in alfalfa 8-11 inches, but with the potential for leafhoppers to proliferate under present hot conditions, regrowth alfalfa should be scouted regularly for signs of injury.

WESTERN BEAN CUTWORM: Pheromone trap installation is planned for the next 2-3 weeks statewide. If warm weather continues, moths could emerge by early July. Persons interested in participating in the program should email Clarissa Hammond at clarissa.hammond@wi.gov

or call 1-866-440-7523 before June 15. Please supply your name, address, telephone number, and specify the number of traps to be placed.

ALERT

TRUE ARMYWORM: Larvae have been detected in corn fields in numbers sufficient to justify immediate treatment. A severe infestation affecting approximately 40-50% of plants was observed on June 6 in the Holmen area of La Crosse County. The ¼ - ¾ inch larvae were as numerous as 18-40 per 100 plants in three adjacent fields, all sod acres converted to corn. Light injury was also reported near Cashton in Monroe County and in the Monroe area of Green County.



True armyworm larva Krista Hamilton DATCP

Due to the severity of this infestation and the potential for larger outbreaks, it is very important that consultants and farmers check corn, peas and wheat immediately and consult their county agents for control recommendations. Damage is expected to become more severe and pronounced next week as both the armyworms and corn plants increase in size.

FORAGES

ALFALFA WEEVIL: Counts vary widely in first crop alfalfa. Larval populations in the southern and west-central areas have declined due to harvest operations, although the few remaining first growth fields now have serious infestations of 2.5-6.2 larvae per sweep and 40-80% leaf tip feeding. Damage and larval estimates are significantly lower in the northern, central and east-central counties of Barron, Clark, Door, Kewaunee, Marathon, Portage,

DEGREE DAYS JANUARY 1 - JUNE 8

LOCATION	50°F	2010	NORM	48°F	40°F
Dubuque, IA	666	826	—	603	1228
Lone Rock	636	814	—	582	1177
Beloit	676	878	—	605	1248
Madison	589	779	668	549	1110
Sullivan	595	814	660	552	1118
Juneau	546	761	—	514	1041
Waukesha	487	698	—	473	964
Hartford	475	676	—	460	937
Racine	425	630	—	416	888
Milwaukee	419	614	520	408	867
Appleton	459	680	568	456	900
Green Bay	393	578	545	403	818
Big Flats	506	736	—	479	967
Hancock	500	748	674	466	960
Port Edwards	483	712	624	461	929
La Crosse	598	815	723	560	1123
Eau Claire	517	738	638	512	984
Cumberland	455	669	598	448	889
Bayfield	294	474	418	286	659
Wausau	435	647	564	426	843
Medford	443	651	497	425	855
Crivitz	376	573	—	365	785
Crandon	385	583	481	373	766

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

Shawano, Washburn, Waushara and Wood, where the average count is 0.6 per sweep and leaf feeding ranges from 10-30%. Larvae in all stages are present, but third and fourth instars are the predominant development stages in the southern half of the state. Pupae were observed on June 8 as far north as Waushara County.

POTATO LEAFHOPPER: Recent hot weather has favored leafhopper development and activity. Surveys in the southern and west-central areas yielded 1-9 per 10 sweeps, with an average of 0.5 per sweep. In the northern and central counties, populations were lower and ranged from 0-7 per 10 sweeps, with an average of 0.2 per sweep. Nymphs were found in 2 of 53 fields sampled during the period of June 2-8, indicating the possibility of a population increase later this month.

ALFALFA BLOTCH LEAFMINER: Leaf mines caused by this insect were observed on 5-10% of alfalfa stems during surveys in La Crosse, Monroe, Richland and Vernon

counties. These percentages are very low relative to the economic threshold of 30-40% of trifoliates with pinholes or mines.

Alfalfa blotch leafminer mine *Krista Hamilton DATCP*

PEA APHID: Populations from Columbia to Washburn County ranged from 0.2-23.8 per sweep and averaged 2.5 per sweep, which is a minor increase over last week's count. In Door and Kewaunee counties, the average was only 0.9 per sweep. The highest count of 23.8 per sweep was found in a Barron County alfalfa field. Pea aphid counts have generally been very low since late April.

PLANT BUG: Reproduction has intensified and nymphs are now more abundant than the adults in most areas. Combined counts of the tarnished, alfalfa and rapid plant bug species averaged 0.4 per sweep in the northern counties, 0.2 per sweep in the east-central counties, 1.1 per sweep in the west-central counties, and 0.7 per sweep in the south. These averages are well below the economic threshold of 5.0 per sweep. The tarnished plant bug continues to be most common of the three species.

CORN

EUROPEAN CORN BORER: The spring emergence of moths continued for the third week, but numbers in black light traps are still very low. Counts of 1-21 moths per trap were registered from Janesville to Chippewa Falls during the period of June 2-8. The phenology model for this pest suggests that the peak in moth activity should occur before June 13 in the southern counties, June 20 in the central counties, and June 27 in the northern counties. Since most corn is unsuitable for larval development, most egg deposition is occurring on peas, peppers, potatoes, snap beans and various weed hosts.

BLACK CUTWORM: Conditions remain favorable for an outbreak of this insect. Crop consultants and growers should continue to monitor corn fields for another 1-2 weeks, particularly those fields affected by spring flooding or with previous grassy weed infestations. Light feeding has been detected in corn throughout the state this spring, but only two cases of significant injury have been reported as of June 8.

STALK BORER: Minor feeding injury has become evident in corn fields in the south-central district. In Columbia County, 1-7% of plants in the marginal 2-3 rows of fields were damaged or infested with small larvae. The number of affected plants was well below economically significant levels in all areas checked. Larvae of this insect complete 7-10 instars and feed for about eight weeks.

SOYBEANS

BEAN LEAF BEETLE: Soybean fields in La Crosse, Monroe, Richland and Vernon counties are showing 5-10% of plants with minor defoliation caused by this insect. Damage is currently limited to a few holes in the leaves, but injury could become more severe next week as additional beetles migrate to emerging soybeans.

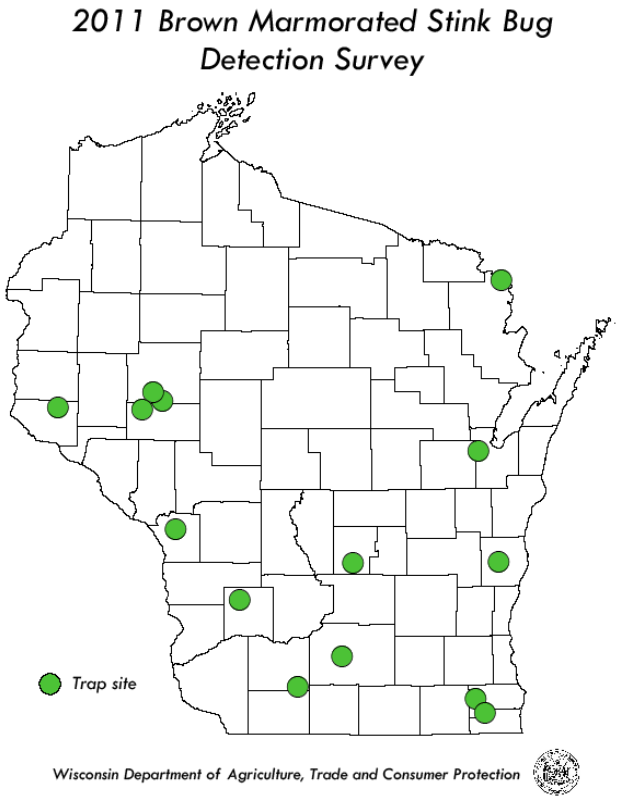
Bean leaf beetle *Krista Hamilton DATCP*

SOYBEAN APHID: This insect has begun to colonize soybean fields in west-central Wisconsin. Both alates and nymphs were found on 5% of plants in a field surveyed near Holmen and on 3% of plants in a field near Rockland in La Crosse County on June 7. A total of 24 aphids

were counted in the Holmen field and 13 in the Rockland field. Nineteen other fields sampled in Columbia, Clark, Marathon, Monroe, Portage, Richland and Vernon counties had no detectable population.

FRUITS

BROWN MARMORATED STINK BUG: A detection survey for this insect is being conducted at 14 orchard sites. Apple growers and county agents from Racine to Chippewa County are cooperating in the trapping program, which will continue through September. The brown marmorated stink bug was discovered in Dane and Manitowoc counties for the first time last November, but reproducing populations have not yet been documented in the state.



REDBANDED LEAFROLLER: Moth counts are expected to increase as the second flight begins next week. This event is projected for 780 degree days (base 50°F), or June 14 at Brodhead, June 19 at Madison, and June 25 at Eau Claire. The average count this week was only 11 moths per trap, which compares to 24 one week ago.

CODLING MOTH: A substantial flight is underway at most trapping locations. Moths are extremely abundant and heavy egg deposition should continue as long as nightly temperatures remain above 62°F. A definite potential exists for damaging populations if treatments are not applied on time. Trap counts ranged from 1-71, with the high count reported from Fond du Lac County.

PLUM CURCULIO: Beetle activity has intensified across the state. The cooperator near Stoughton in Dane County reports that plum curculio has been more prevalent than he has ever experienced in past years, and as a result, he applied Assail® on June 6. The oviposition period, which ordinarily extends for 6-8 weeks, is being hastened this season by high temperatures. Counts in pyramid traps ranged as high as 20 per trap from June 2-8.

VEGETABLES

IMPORTED CABBAGEWORM: Larvae ranging in size from ½-¾ inch were the cause of moderate defoliation of red cabbage and radishes in a La Crosse County vegetable garden. Manual removal of the caterpillars will generally give reasonable control, but a Bt insecticide is recommended for larger plantings.

RED TURNIP BEETLE: This red and black beetle was noted in Adams, Barron, Monroe and Wood County alfalfa fields on June 8. Red turnip beetle is an occasional pest in the Central Sands area of the state. Hosts include broccoli, cabbage, kohlrabi, radish and turnip, but hoary alyssum and yellow rocket are thought to be the primary food plants. Reports of damage to home gardens are infrequent, except in high population years.

Red turnip beetles in alfalfa *Krista Hamilton DATCP*

POTATO LEAFHOPPER: Counts thus far have not justified treatment, but populations in alfalfa are approaching the

economic threshold of 1.0 per sweep for 6-11 inch fields and 2.0 per sweep for fields taller than 12 inches. This observation suggests populations are likewise increasing in vegetable hosts such as snap beans and potatoes.

WEEDS

COMMON LAMBSQUARTERS: Secondary flushes are emerging in corn and soybean fields, likely due to the combination of a long emergence period and soil disturbance (i.e. planting, tillage, herbicide applications). This summer annual weed is very common in annual cropping systems and can be culturally managed by rotating fields into a perennial forage or winter grain crop. Chemical and mechanical measures are also effective, especially if applied when plants are small. Adequate control is important since in addition to reducing yields, common lambsquarters has been documented as a host for several crop diseases, including alfalfa mosaic virus, cucumber mosaic virus and soybean mosaic virus.

Common lambsquarters Clarissa Hammond DATCP

NURSERY & FOREST

PESUDOMONAS BLIGHT: Potted lilacs, forsythia and variegated dogwood in Dane, Dodge, Sauk, Washington and Waukesha counties were showing symptoms of this disease. The principal diagnostic characteristics are yellowish-brown leaf lesions, black streaks along the leaf veins and midribs, and withered, black shoots which bend to form a distinctive shepherd's crook. Control consists of pruning out blighted twigs, thinning plants to increase air circulation, and growing resistant varieties. Pruning shears should be disinfected between cuts to prevent spread of the disease.

EMERALD EUPHORIA: Beetles were noted late last month on perennials at two Dane County residences. One specimen was collected from perennial foxglove and identified by UW-Madison Entomologist Phil Pellitteri. This species (*Euphoria fulgida*) is considered common but not abundant in the state. UW Insect Research Collection records list it as occurring in Crawford, Dane, Door, Iowa, Iron and Monroe counties.

Emerald euphoria beetle Sean McCann flickr.com

NON-VIABLE NURSERY STOCK: Nursery plants that have not leafed out by now are considered non-viable and cannot be offered for sale. Dry bulbs and trees and shrubs with plastic-wrapped roots are especially prone to moisture deficiency problems after distribution to retail stores and should be sold within three weeks of arrival. Non-viable stock may be set aside and observed for late growth, but otherwise must be destroyed or returned to the supplier.

DOWNY MILDEW: Several veronica plants in a Sauk County nursery were lightly infected with this common fungal disease, characterized by growth of whitish-gray mold on the lower leaf surface and corresponding yellowish-green or tan areas on the upper leaf surface. Its incidence may be reduced by controlling humidity levels and spacing plants to increase air circulation.

GYPSY MOTH: Btk treatment was conducted in Brown, Chippewa, Clark, Eau Claire, Jackson, La Crosse, Monroe, Marinette, Menominee, Polk, Price, Rusk, Shawano, Trempealeau and Washburn counties last week. Bayfield and Ashland counties received Btk treatment June 7-8. Bayfield County is scheduled to receive a second application early next week, which will conclude this year's Btk treatment program.

APPLE INSECT & BLACK LIGHT TRAP COUNTS JUNE 2 - 8

COUNTY	SITE	STLM[1]	RBLR[2]	CM[3]	OBLR[4]	OBLR[5]	PC[6]	AM RED[7]	GDD 50°F
Bayfield	Keystone	14	12	0	0				
Bayfield	Orienta	15	0	0	0				
Brown	Oneida	160	15	18	0				
Chippewa	Chippewa Falls	0	0	8	0	0			545
Columbia	Rio	2	7	26	0		8		
Dane	Deerfield	26	10	30	1	1			
Dane	Mt. Horeb	—	0	4	1				
Dane	Stoughton	12	30	16	1	0			499
Dane	McFarland	0	0	80	0		20		
Dane	West Madison	2	5	15	0				
Dodge	Brownsville	14	12	0	6				
Fond du Lac	Campbellsport	0	12	0	5				
Fond du Lac	Malone	15	0	71	1				
Grant	Sinsinawa	0	2	2	1				
Green	Brodhead	0	23	12	0	0			
Iowa	Mineral Point	1	1	19	0	0	2		482
Jackson	Hixton	20	24	2	2	9			
Kenosha	Burlington	0	2	3	1				422
Marinette	Niagara	236	51	0	0				336
Marquette	Montello	10	2	0	0				409
Ozaukee	Mequon	0	17	23					407
Pierce	Beldenville	0	0	23	2	0			
Pierce	Spring Valley	9	20	9	0	0			
Polk	Turtle Lake	0	0	6	1				494
Racine	Raymond	14	11	4	2				
Racine	Rochester	34	1	35	0		0		462
Richland	Hillpoint	3	0	6	0	0			
Sheboygan	Plymouth	10	46	4	0				386
Walworth	East Troy	0	3	1	0				
Walworth	Elkhorn	0	10	0	0				
Waukesha	New Berlin	8	15	28	—				

[1]Spotted tentiform leafminer; [2]Redbanded leafroller; [3]Codling moth; [4]Obliquebanded leafroller EASTERN; [5]Obliquebanded leafroller WESTERN; [6]Plum Curculio; [7]Apple maggot red sphere.

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	5	0	10	0	2	0	0	0	0	0
Columbia	Arlington	0	56	0	0	0	0	5	1	0	0
Crawford	Prairie du Chien	5	0	0	1	0	1	0	0	0	0
Dane	Mazomanie	12	5	4	0	0	2	1	0	4	0
Manitowoc	Manitowoc	0	23	0	0	0	0	0	0	12	0
Marathon	Wausau	0	62	1	1	0	0	25	0	7	0
Monroe	Sparta	3	4	0	0	0	0	0	0	1	0
Rock	Janesville	1	90	0	0	0	0	5	0	4	0
Walworth	East Troy	21	0	0	0	0	0	0	0	1	0
Wood	Marshfield	1	70	1	0	0	0	30	0	18	8
Vernon	Coon Valley	13	31	2	0	0	0	5	0	10	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.