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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

Rain continued across the state during the first half of the week, increasing soil moisture supplies for emerging crops but disrupting spring planting and fieldwork. A low pressure system on Sunday brought showers and numerous slow-moving thunderstorms to Wisconsin. Some of the storms became severe and produced quarter-sized hail and heavy downpours in the central and southern counties. A few west-central locations, including Prescott, River Falls and Stockholm, recorded rainfall totals in excess of two inches on May 6. Additional showers and isolated storms developed again on Tuesday before calm weather returned for the remainder of the week. The repeated heavy rain events brought planting of corn, soybeans, oats and potatoes to a standstill and impeded harvesting of first crop alfalfa for the second week. Many fields must be cut during the next available rain-free period to prevent economic alfalfa weevil damage.

LOOKING AHEAD

CORN EARWORM: Last week's active weather pattern directed the first corn earworm migrants into southern Wisconsin. One specimen was registered at Janesville on the night of May 3 and 28 others appeared in the Prairie du Chien trap from May 4-9. This is the earliest recorded corn earworm arrival date in many years.

POTATO LEAFHOPPER: Migrants are distributed in moderate numbers in the southern and central counties. The average in the past week was 0.5 per sweep in Dane, Green, La Crosse, Monroe and Rock counties, although counts ranged as high as 1.8 per sweep. Nymphs are already appearing in alfalfa in the south-central counties, signaling that second crop regrowth will need to be checked frequently as populations increase this month.

BLACK CUTWORM: Larval progeny of the earliest migrants are expected to reach the destructive late-instar cutting stages next week. The combination of a very large moth migration and extensive winter annual weed problems in many fields this spring means conditions are conducive to localized outbreaks. Scouting should begin several days before the predicted cutting date of May 15.

EUROPEAN CORN BORER: The first moths of the spring flight were collected in the Coon Valley black light trap on May 1. Based on the European corn borer phenology model, the majority of moths should emerge by May 29 at advanced southern sites and about 1-2 weeks later in the central and northern areas. Egg deposition is expected to intensify in the week ahead.

BROWN MARMORATED STINK BUG: A single stink bug specimen collected late last month in a Jefferson County garage has been identified by UW Entomologist Phil Pellitteri as the brown marmorated stink bug. This is the fifth

reported case of the insect being found at a residence in Wisconsin. Established populations of the invasive stink bug are suspected in Brown, Dane, and now Jefferson County, but have not been confirmed thus far. To date, there is no authentic record of the insect in an agricultural setting in Wisconsin.

Brown marmorated stink bug inaturer flickr.com

TRUE ARMYWORM: Moths have been flying on warmer evenings for several weeks and continue to appear in black light traps. Counts have ranged as high as 74-166 moths per trap per week since late April but no reports of larval infestations in small grains or corn have been received as of May 9.

DEGREE DAYS JANUARY 1 - MAY 9

LOCATION	50°F	2011	NORM	48°F	40°F
Dubuque, IA	509	181	299	528	959
Lone Rock	502	165	—	505	921
Beloit	517	195	306	530	956
Madison	472	144	286	480	885
Sullivan	468	160	263	473	881
Juneau	433	136	—	438	836
Waukesha	374	117	—	384	769
Hartford	363	113	—	372	751
Racine	334	98	—	347	718
Milwaukee	321	95	223	332	700
Appleton	352	91	229	352	730
Green Bay	292	69	213	270	663
Big Flats	426	115	—	415	812
Hancock	410	112	273	400	796
Port Edwards	396	99	268	387	776
La Crosse	458	147	318	464	884
Eau Claire	381	117	270	384	779
Cumberland	311	108	222	311	689
Bayfield	191	77	—	178	476
Wausau	328	80	223	319	689
Medford	325	81	193	323	694
Crivitz	255	71	—	249	608
Crandon	262	71	177	252	603

Method: ModifiedB50; Sine48; ModifiedB40 as of Jan 1, 2012. NORMALS based on 30-year average daily temps, 1981-2010.

FORAGES

POTATO LEAFHOPPER: Migrants were collected from 19 of 29 alfalfa fields sampled this week, as far north as Monroe County. A report from Manitowoc County in the east-central area states that adults are being found at the rate of 1 per sweep in individual fields there. Nymphs were noted for the first time on May 2 in Lafayette County, indicating that reproduction has begun.

ALFALFA WEEVIL: Larval populations have continued to build under the wet weather pattern of the past two weeks. Numbers in the south-central area now range from 2-16 per sweep, with an average of 7 per sweep. Lower counts of 1-3 per sweep can be found in the east-central and west-central districts. Leaf tip damage is generally less than 30%, although a few exceptional fields in Dane, Green and Rock counties have economic defoliation levels of 40-80%. Larvae in the second and third instars are the predominant development stages. Damage will intensify as more larvae enter the larger and most destructive third and fourth-instar stages. First crop alfalfa that is not harvested by mid-May could be degraded to the point that quality and yield have been seriously compromised. Control is suggested when the economic threshold of 40% tip feeding is exceeded more than 7-10 days in advance of harvest.

PEA APHID: Alfalfa fields sampled in the southern half of the state contained 2-6 per sweep. The average count for the period of May 4-9 was 3.5 per sweep, a modest increase from less than 1 per sweep the week before.

MEADOW SPITTLEBUG: The first nymphs and spittle masses were observed in alfalfa late last week. Populations are currently below 2 per 100 stems in all fields checked in the south-central and central areas.

PLANT BUGS: Representative counts range from 0.5-1 per sweep, which is still low relative to the economic

threshold of 5 per sweep. Small nymphs of the tarnished and alfalfa plant bug species are appearing more commonly in sweep net collections.

CORN

EUROPEAN CORN BORER: The emergence of spring moths continued for the second week, but numbers in black light traps are still very low. Counts of 1-5 moths per trap were registered at Arlington, Coon Valley, East Troy and Prairie du Chien during the period of May 3-9. The phenology model for this pest suggests that egg deposition is beginning in areas of the state where 450 degree days (base 50°F) have accumulated, including Janesville, Lancaster and Madison. At current temperatures, the first flight could peak by May 29 in the southern counties, June 6 in the central counties and 1-2 weeks later in the northern counties.

TRUE ARMYWORM: Conditions remain favorable for localized infestations of this insect. Crop consultants and growers should continue to monitor corn and small grains throughout the month. Small larvae have been swept from alfalfa in the past two weeks, but no significant problems have been reported to date.

True armyworm moth *Krista Hamilton DATCP*

BLACK CUTWORM: Larvae from the April-May migration are expected to reach the damaging late-instar stages next week and could be encountered in emerging corn fields. Although previous weed infestation and reduced tillage are perhaps the most important factors influencing cutworm potential, farmers and crop advisors should be aware that problems can develop in conventionally-tilled and Bt fields as well. During periods of wet weather (such as most of Wisconsin has experienced lately), the larvae usually cut plants at the soil surface. Timely detection of cutworm infestations is critical for insecticide treatments to be effective and economical. Economic thresholds have been established for the following crops:

CORN: 3% of plants damaged
SNAP BEANS: 2 larvae per row foot
POTATOES: 4 larvae per row foot
LEAFY GREENS: 3% of stand affected

Black cutworm feeding injury *ipm.missouri.edu*

CORN EARWORM: Several early moths have been captured in the Janesville and Prairie du Chien pheromone traps. The first adult was registered on the night of May 3 and 30 others appeared from May 4-9. Moth flights also have been reported in southern source regions of Texas and Arkansas in the past 7-14 days. Although susceptible crops are not at a stage where damage could occur, more isolated moth flights may follow this month and in June.

SOYBEANS

SOYBEAN APHID: The DATCP Pest Survey Program, in partnership with the UW-Madison, is seeking volunteers for its 2012 Soybean Aphid Survey. Participants will be asked to provide exact field locations and basic production information, including: 1) Soybean variety and number, 2) Seed treatment chemicals, 3) Planting date, 4) Seeds planted per acre, 5) Row spacing, 6) Fertilizer and herbicide use, 7) Foliar pesticide applications, and 8) Average yield (bu/acre). In exchange, volunteers will receive current aphid counts as fields are sampled. The

program expects to check each soybean field 2-3 times from June through August. Consultants, agronomists, county agents and growers interested in taking part in the annual survey should email or call Krista Hamilton by June 1 at krista.hamilton@wi.gov or 1-866-440-7523. Specific counties in which fields are needed are Columbia, Dane, Dodge, Green, Iowa, Jackson, Jefferson, Lafayette, Manitowoc, Richland, Rock, Sauk and Walworth, although all sites will be considered for the survey.

Soybean aphids *Krista Hamilton DATCP*

BEAN LEAF BEETLE: Surveys of alfalfa found overwintered beetles in Dane, Lafayette and Rock counties since the last report. This insect is economically unimportant to forage crops, but its abundance can be an indicator of soybean defoliation potential. The earliest-planted soybean fields are highly attractive to overwintered beetles and should be checked for feeding injury beginning at emergence.

FRUITS

CODLING MOTH: Low to moderate numbers of moths are appearing in pheromone traps. Reports of activity were received from 17 of 29 orchards in the past week, with a high count of 14 moths per trap near Deerfield in Dane County. The spring biofix was set on May 2 or 3 at several sites in southern and central Wisconsin.

It should be noted that the viability of codling moth eggs declines rapidly when female moths cannot fly and oviposit due to unfavorable weather conditions. Most egg masses become unviable after 5-6 days. Orchard locations that registered 5 or more moths on May 2-3 but have experienced cold, windy nights in the subsequent 5-6 days may need to disregard the preliminary biofix and plan controls based on the next sustained moth capture.

SPOTTED TENTIFORM LEAFMINER: The second of three flights this season is expected to begin in the next 1-2 weeks in the southern and central counties, once 539-750 degree days (base 50°F) are surpassed. By contrast, counts in Bayfield and Marinette counties continue to escalate as the first flight gains momentum.

VEGETABLES

LOOPERS: Migrant celery loopers and cabbage loopers have been collected in the last two weeks in Grant and Lafayette counties. Their early May arrival indicates that scouting regimens should be initiated well ahead of schedule this year. Cabbage loopers typically migrate northward in late June or July, so the captures on May 7-9 are unusually early for this pest.

Celery looper moth *Chris Helzer The Nature Conservancy*

ONION MAGGOT: First generation flies are active near Cumberland, Medford and Wausau in northern Wisconsin. As mentioned in last week's issue, flies of this spring generation are often the most abundant and damaging, especially at sites where onions are grown in succession. Preventive soil insecticides should be considered if maggot damage to the previous year's crop exceeded 5-10%.

SPOTTED CUCUMBER BEETLE: This distinctive yellowish-green beetle with black spots is appearing in alfalfa in the southern half of the state. Similar to the cabbage looper, the spotted cucumber beetle does not overwinter in Wisconsin but migrates in from southern states each year, arriving around June. Both this species and the

striped cucumber beetle are efficient vectors of bacterial wilt of cucumbers, muskmelons and watermelons. Early beetle control may be required in large commercial muskmelon or cucumber operations this month. The first symptom of bacterial wilt on cucumber and melon is a distinct flagging of lateral and individual leaves.

POTATO LEAFHOPPER: Migrants were detected in the state three weeks ago and reproduction of nymphs is already occurring in the first alfalfa crop. Harvesting of fields in the week ahead may force adults into snap beans, potatoes and other hosts. Growers of these vegetables should be alert to the possibility of a sudden increase in leafhopper populations, particularly as temperatures rise next week. Recommended treatment thresholds for snap beans are 0.5 per sweep for seedlings and 1.0 per sweep for plants in the third trifoliate to bud stages. Control in potatoes is warranted when 0.5-1 adults are swept consistently for 10-14 days or if nymphs are present.

WEEDS

MUSK THISTLE: Second-year shoots are elongating and have surpassed 12 inches in southern alfalfa fields and pastures. Regular harvesting of alfalfa and mowing pastures will help to prevent seed production and can be a valuable management tool if used consistently. The preferred time to treat plants with herbicides is in late fall or early spring, prior to the appearance of flowering stalks. Maintaining a healthy pasture through proper fertilization and avoiding overgrazing will reduce the number of new seeds that germinate.

NURSERY & FOREST

GYPSY MOTH: Btk treatments were applied from May 3-9 in Chippewa, Dunn, Eau Claire, Grant, Iowa, Jackson, Lafayette, Trempealeau and Vernon counties. Approximately 14,973 acres were treated. Spraying is scheduled to continue through the end of this week in Chippewa, Clark, Eau Claire, Jackson and Trempealeau counties, where sites will receive applications of Btk or Gypchek. Treatments have been completed for the season in Green, Grant, Iowa and Lafayette counties.

VOLUTELLA BLIGHT: This potentially lethal disease is reported to be infecting pachysandra at several nurseries in Ozaukee County. Volutella blight begins as small water-soaked lesions on the leaves that eventually turn brownish-black and necrotic. Recommended controls include removing diseased leaves, stems and debris, and thinning existing plantings to promote air flow. For severe problems, nursery operators should dig up or prune back infected plants and follow with one or more applications of a broad-spectrum fungicide (containing chlorothalonil) labeled for use on pachysandra.

Volutella blight on pachysandra *missouribotanicalgarden.org*

FROST INJURY: Nursery trees, shrubs and perennials are showing the effects of the frigid nights last month. The problem is evident statewide. Reports from the northwest and southeast regions indicate a wide variety of plants have been affected to some degree, including bleeding heart, hosta, hydrangea, magnolia, maple, spirea, weigela, spruce and yew.

TOBACCO RATTLE VIRUS: Standard inspections in the past week found tobacco rattle virus (TRV) on bleeding hearts in Ozaukee, Racine, Walworth and Waukesha counties. This relatively new and increasingly common virus in the nursery trade can infect over 400 species of herbaceous and ornamental garden plants, vegetables and field crops. Symptoms include light and dark green mottling of the leaves, stunting, leaf distortion, crinkling or curling, streaking and chlorotic ringspots. Removal and destruction of symptomatic nursery stock is required as there are no effective chemical controls for this virus.

APPLE INSECT & BLACK LIGHT TRAP COUNTS MAY 3 - 9

COUNTY	SITE	STLM[1]	RBLR[2]	CM[3]	OBLR[4]	OBLR[5]	AM RED[6]	YELLOW[7]	GDD 50°F
Bayfield	Keystone	5	42	—	—				
Bayfield	Orienta	11	5	—	—				
Brown	Oneida	1130	82	0	—				
Chippewa	Chippewa Falls	0	0	0	4				
Dane	Deerfield	74	6	14	0				
Dane	McFarland	0	36	0	—				
Dane	Mt. Horeb	3	13	2	—				
Dane	Stoughton	20	21	4	4				
Dane	West Madison	—	—	—	—				
Dodge	Brownsville	4	0	0	2				
Fond du Lac	Campbellsport	30	35	0	0				
Fond du Lac	Malone	8	4	1	0				
Fond du Lac	Rosendale	5	14	1	0				
Grant	Sinsinawa	—	—	—	—				
Green	Brodhead	8	6	6	0				
Iowa	Mineral Point	18	24	2	0				
Jackson	Hixton	26	6	1	2				
Kenosha	Burlington	20	7	2	—				
Marathon	Edgar	193	80	0	9				
Marinette	Niagara	132	17	0	0				
Marquette	Montello	6	1	0	0				
Ozaukee	Mequon	40	19	0	—				
Pierce	Beldenville	1	11	6	0				
Pierce	Spring Valley	61	220	2	0				
Polk	Turtle Lake	63	149	4	0				
Racine	Raymond	110	16	2	0				
Racine	Rochester	160	8	5	—				
Richland	Hillpoint	52	21	1	0				
Sheboygan	Plymouth	60	85	2	—				
Walworth	East Troy	1	2	3	—				
Walworth	Elkhorn	2	4	0	—				
Waukesha	New Berlin	—	—	—	—				

[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	0	0	0	0	0	0	0	0	0	0
Columbia	Arlington	3	3	0	0	0	0	2	0	1	0
Crawford	Prairie du Chien	3	1	0	1	0	0	3	0	18	0
Manitowoc	Manitowoc	0	166	81	0	0	0	9	0	6	0
Marathon	Ripon	0	82	0	0	0	0	0	0	0	0
Rock	Janesville	0	74	0	0	0	0	29	0	13	6
Walworth	East Troy	1	18	0	0	0	0	5	0	5	0
Wood	Marshfield	—	21	8	0	0	0	16	0	0	24
Vernon	Coon Valley	5	12	9	0	0	2	10	0	14	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. *Moth ID has not been confirmed.