Volume 55 No. 03 May 07, 2010

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

An unsettled weather pattern persisted throughout the first week of May. Wisconsin farmers made considerable progress planting corn, oats and soybeans during the brief periods of quiet weather, but scattered showers, thunderstorms and strong winds caused minor fieldwork delays. Rainfall associated with the storms restored some of the soil moisture that had declined over the last month and improved prospects for emerging summer crops. In the northern areas, accumulations were generally minimal and drought has become a major concern again this season. As of May 3, soil moisture levels were reported as short or very short for 57% of northern Wisconsin crop lands. The remainder of the week was noticeably cooler, with many locations reporting below-normal temperatures and even light snow. Despite limited moisture and a brief cold spell, conditions this spring have been nearly ideal and prospects for crops at this early stage are the best in many years.

LOOKING AHEAD

BLACK CUTWORM: Large flights of migrants were registered for the second consecutive week in Dane and Jefferson counties. The latest influx signals that oviposition should intensify as soon as the weather is conducive to their activity. Egg hatch is already underway across most of the state. At current temperatures, the primary damage period is expected to begin by May 24 in southern Wisconsin and 1-2 weeks later in the central and northern areas.

TRUE ARMYWORM: Larvae were collected this week at the rate of 1-2 per 50 sweeps from alfalfa in Dane, Green and Iowa counties. The ¼ inch armyworms apparently are the result of moth flights during earlier warm periods in April.

EUROPEAN CORN BORER: The first spring moths should appear in black light trap collections in the week ahead. Most overwintered corn borers are still in the pupal stage, so no large flights are likely to occur until late May or early June. As noted last week, an insignificant flight is anticipated based on last season's record low population of only 0.6 borer per plant.

CODLING MOTH: Several apple orchards reported captures of 1-2 moths during the April 30-May 6 monitoring period, indicating the start of the first flight of this destructive apple pest. Frequent trap checks over the next two weeks are advised to document biofix, or the first sustained capture of male codling moths.

BEAN LEAF BEETLE: The first overwintered beetle of the season was swept from alfalfa in Green County on May 5, exactly 14 days earlier than in 2009. A systematic

survey is now being conducted by our entomologists, and the results should provide an indication of beetle numbers and the potential for damage to early soybeans.

Bean leaf beetle Krista Hamilton DATCP

FORAGES

ALFALFA WEEVIL: Larvae were found in 21 of 29 surveyed fields in the south-central, southeast and west-central areas, but in very low numbers. Counts ranged from 1-5 per 50 sweeps. Leaf tip feeding associated with this insect is not yet noticeable, but this will likely change before the first crop is ready for harvest. All alfalfa fields should be checked regularly over the next 2-3 weeks for developing problems. Treatment is justified when the economic threshold of 40% tip feeding is exceeded 7-10 days in advance of harvest.

PEA APHID: Surveys conducted in alfalfa from Walworth County to Trempealeau County yielded 5-45 aphids per 50 sweeps, which represents a minor increase over last week's observations. The numbers noted thus far are comparable to those observed in early spring of 2009 and are standard for this time of year.

PLANT BUGS: Nymphs of the alfalfa plant bug were collected for the first time this week in Dane, Green and Iowa counties at the rate of 1-4 per 50 sweeps. Adults of the tarnished plant bug were noticeably more abundant, with counts ranging from 5-12 per 50 sweeps. These insects are of no consequence to alfalfa at present levels.

POTATO LEAFHOPPER: The mid-April arrival of leafhoppers suggests that reproduction may begin earlier than is customary for this insect, perhaps by the third week of May at advanced southern locations. Surveys in the southern and west-central counties found low counts of 1-3 adults per 50 sweeps from May 3-6.

DEGREE DAYS JANUARY 1 - MAY 06

LOCATION	50°F	2009	NORM	48°F	40°F
Dubuque, IA	376	222	—	378	755
Lone Rock	368	217	—	352	727
Beloit	411	227	—	399	784
Madison	340	200	249	332	695
Sullivan	369	214	231	345	718
Juneau	331	194	—	314	673
Waukesha	304	195	—	290	634
Hartford	285	182	—	278	620
Racine	266	170	—	274	594
Milwaukee	253	165	178	258	578
Appleton	283	151	182	276	615
Green Bay	223	127	175	224	543
Big Flats	331	188	—	301	659
Hancock	332	180	241	304	658
Port Edwards	314	172	221	289	640
La Crosse	365	212	264	353	726
Eau Claire	314	194	221	296	656
Cumberland	275	174	194	243	590
Bayfield	170	88	121	144	436
Wausau	278	138	181	252	591
Medford	275	152	151	249	593
Crivitz	232	124	—	219	544
Crandon	243	115	153	210	537

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

CORN

BLACK CUTWORM: The pheromone traps distributed at 14 locations in Columbia, Dane, Dodge, Jefferson and Rock counties registered 95 moths this week, a considerable increase over the 37 moths reported the week before. Intense flights of 9-16 moths were documented near Hooper's Mill, Johnson Creek, Lake Mills, Morrisonville and Sun Prairie. Oviposition by female migrants is intensifying, and early signs of infestation could become evident in emerging corn next week. Close inspection of seedlings for small, irregular holes in the leaves is strongly advised.

Compared to recent years, field conditions this spring may be less conducive to outbreaks since tillage is nearly

complete statewide and more than 51% of the corn crop has been planted. Fields that have been tilled and planted at the time of black cutworm arrival are generally at low risk for damage. According to the degree day model for this insect, larvae resulting from the late April-early May migration can be expected to begin cutting corn seedlings by May 24.

Corn seedling severed by black cutworm www.pioneer.com

VEGETABLES

POWDERY SCAB OF POTATO: A two-year survey of potato fields and storage facilities has thus far detected powdery scab in 43 of 223 (19%) tuber samples from 14 Wisconsin counties. The majority of infected tubers came from the Central Sands production area where potatoes are grown mostly for human consumption. Scab lesions that appear on the surface of potatoes are an aesthetic problem but are not harmful to consumers. Further description of this disease and the ongoing survey effort may be obtained at the new pest survey website: http://pestsurvey.wi.gov/.

POTATO FLEA BEETLE: An infestation of small, dull black flea beetles was noted on tomatoes and pepper plants in La Crosse County. Vegetable growers and home gardeners should be prepared to control this pest as numbers in some areas of the state are already high enough to cause serious defoliation.

ONION MAGGOT: Peak emergence of the first and most damaging of three generations of flies is expected to occur between May 9 and 15 in the southeast, east-central and northern counties. Onion sets planted one week in advance of this event are less susceptible to egg laying and larval feeding. Foliar insecticides, if justified, must be applied at peak adult emergence around 680 degree days (simple base 40°F) to be effective. The degree day accumulation as of May 6 was 594 at Racine, 615 at Appleton, and 591 at Wausau.

FRUITS

CODLING MOTH: Pheromone traps registered the start of the first flight by May 6, but a sustained capture of moths (biofix) was not documented at any reporting orchard. Below-normal temperatures predicted for the weekend should temporarily suppress activity and delay biofix until late next week. In the interim, daily trap checks are recommended.

SPOTTED TENTIFORM LEAFMINER: Numbers are on the decline in most areas, with the exception of the south-eastern counties where a noteworthy increase was charted in the past week. The orchards near Mequon, Plymouth, Raymond and Rochester reported high counts of 521-1030 leafminers per trap. Moth activity is expected to diminish in the very near future as populations transition into the larval stages.

Spotted tentiform leafminer Charles Baker ukmoths.org.uk

CRANBERRY REPORT: Development of cranberry plants continued at a slow but effective rate, despite recent cold nights. Most beds are now at bud break to ¼ inch elongation. Regular frost protection this spring has delayed the start of weed controls, but also reduced early insect activity. Scouts anticipate beginning sweeping efforts next week. With the warmer weather predicted for mid-May, bud development should begin to advance.

WEEDS

DAME'S ROCKET: Purple dame's rocket flowers have become noticeable along roadsides and in woodlands in the southern half of the state. This species is usually not a problem in agronomic crops, but as a prolific producer of seeds, it may invade and overrun open areas.

Dame's rocket *Clarissa Hammond DATCP*

GRASSES: Densities of annual grasses are increasing in many emerging corn fields. Among the species noted this week were giant foxtail, yellow foxtail, green foxtail, wild proso millet and woolly cupgrass. Grasses such as these not only compete with field crops, but also provide suitable oviposition sites for pest insects such as the black cutworm and true armyworm. Fields with an abundance of grassy weeds indicate the need to adjust management strategies for improved weed control.

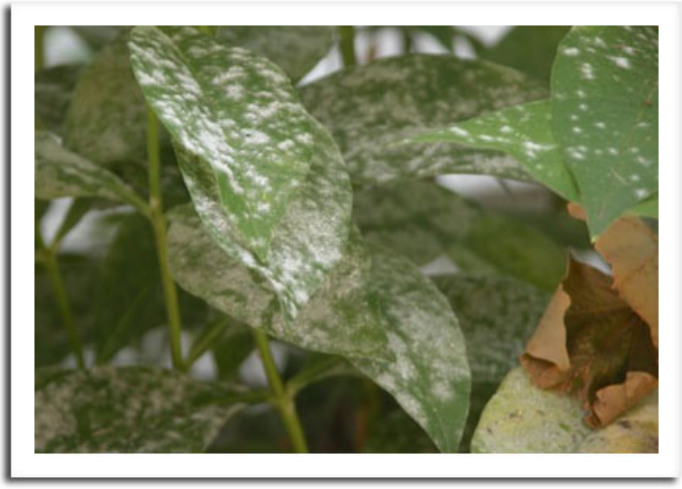
NURSERY & LANDSCAPE

WHITE PINE BLISTER RUST: Symptoms of this lethal canker disease were noted on white pines in a St. Croix County nursery. White pine blister rust has a complex lifecycle in which it alternates between five-needle pines and currants or gooseberries. Removing branches that contain cankers 4 or more inches from the trunk and eradicating susceptible Ribes plants from within 900 feet of white pines are effective controls.

TOBACCO RATTLE VIRUS: This previously mentioned disorder (Bulletin No. 2 April 30) was found in the past week on the hosta varieties 'Krossa Regal', 'Regal Splendor' and 'Magic Fire' in a northeastern Wisconsin greenhouse. The plants displayed classic signs of ring-spot virus, which laboratory testing later confirmed as tobacco rattle virus and not Hosta Virus X. DATCP officials are in the process of tracing the source of the virus and removing the plants from sale.

Hosta 'Krossa Regal' infected with TRV *Anette Phibbs DATCP*

POWDERY MILDEW: Nursery inspectors observed this common fungal disease on the perennials monarda, phlox and rudbeckia in Pierce County. The initial symptoms appear as a grayish-white powder on the upper leaf surfaces which later causes leaves to turn yellow and senesce prematurely. The incidence of powdery mildew may be reduced by controlling humidity and spacing plants to increase air circulation. Discretion should be exercised in using fungicides since the mildew and light defoliation usually can be tolerated by the plants.



Powdery mildew on Monarda *Konnie Jerabek DATCP*

PINE PITCH MIDGE: Resin masses exuding from white pines in a St. Croix County nursery were attributed to

feeding by the larvae of this midge. Heavy infestation causes damage to branches, reduces tree vigor, and may result in dieback.

TRAPPING NETWORKS

BLACK LIGHT TRAPS: Rather favorable migration conditions for true armyworms prevailed earlier this week, as evidenced by high numbers at the Janesville black light trap location. Counts of 44 and 137 moths were registered on the nights of May 4 and 5, respectively. Large flights of armyworm adults may precede larval outbreaks by 3-4 weeks, but in most instances damaging populations fail to materialize. The only other nocturnal species that appeared at Janesville was the celery looper.

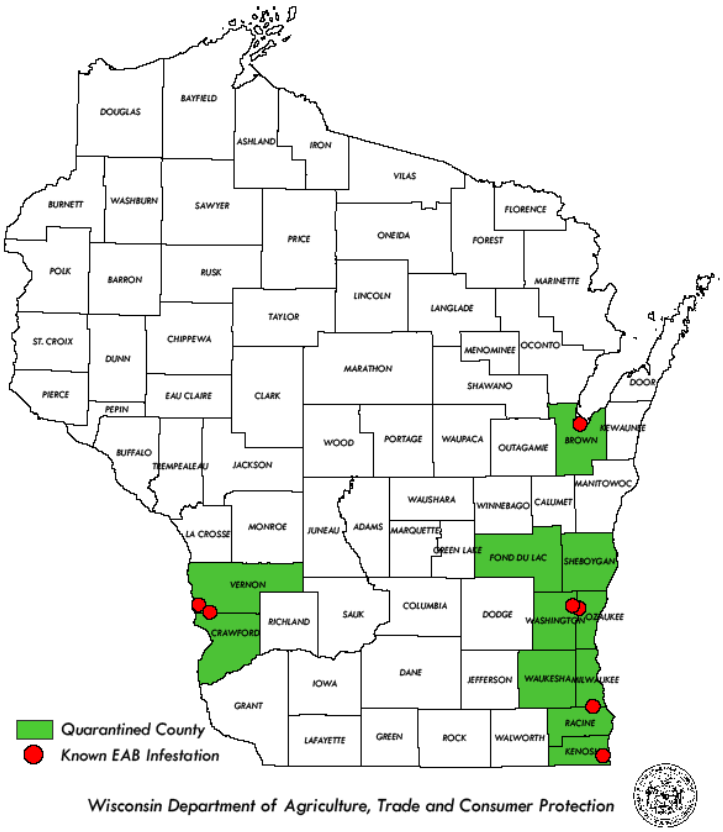
True armyworm moth Krista Hamilton DATCP

FOREST

EASTERN TENT CATERPILLAR: Most larvae are in the 4th instar at this time. The largest tents in southern Wisconsin measure 21 inches long and 9 inches across, and complete defoliation of scattered roadside trees is evident in many counties. Larvae should start to migrate and show signs of pupation before the end of the month.

EMERALD ASH BORER: Emerald ash borer was detected in five new locations last season and now infests Brown, Crawford, Kenosha, Milwaukee, Ozaukee, Vernon and Washington counties. The accompanying map shows the approximate detection sites and areas of the state currently under quarantine.

Emerald Ash Borer Detection Sites and Quarantined Counties



Wisconsin Department of Agriculture, Trade and Consumer Protection

Eastern tent caterpillars Krista Hamilton DATCP

APPLE INSECT & BLACK LIGHT TRAP COUNTS APRIL 30 - MAY 6

COUNTY	DATE	SITE	STLM[1]	RBLR[2]	CM[3]	OBLR[4]	OBLR[5]	AM RED[6]	AM YELLOW[7]
Bayfield	4/30-5/06	Keystone	4	85	0				
Bayfield	4/30-5/06	Bayfield	—	—	—				
Bayfield	4/26-5/03	Orienta	9	0	0				
Brown	4/30-5/06	Oneida	972	19	1				
Chippewa	4/30-5/06	Chippewa Falls 1	40	8	1				
Chippewa	4/30-5/06	Chippewa Falls 2	—	—	—				
Dane	4/30-5/06	Deerfield	306	20	0				
Dane	4/30-5/06	McFarland	1	10	0				
Dane	4/29-5/05	Stoughton	47	51	0				
Dane	4/30-5/05	West Madison	41	15	0				
Dodge	4/30-5/06	Brownsville	50	68	0				
Fond du Lac	4/29-5/05	Campbellsport	100	40	0				
Fond du Lac	4/30-5/06	Malone	150	5	1				
Fond du Lac	4/29-5/05	Rosendale	25	8	0				
Grant	4/30-5/06	Sinsinawa	2	1	0				
Green	4/30-5/06	Brodhead	0	27	2				
Iowa	4/30-5/06	Dodgeville	155	28	0				
Iowa	4/30-5/06	Mineral Point	26	60	1				
Jackson	4/30-5/06	Hixton	44	13	0				
Kenosha	4/30-5/06	Burlington	375	34	0				
Marinette	4/30-5/06	Niagara	220	11	0				
Marquette	4/26-5/03	Montello	10	4	0				
Ozaukee	4/30-5/06	Mequon	910	61	0				
Pierce	4/30-5/06	Beldenville	340	—	0				
Pierce	4/29-5/06	Spring Valley	146	86	0				
Racine	4/30-5/06	Raymond	521	129	0				
Racine	4/30-5/06	Rochester	1030	56	1				
Richland	4/30-5/03	Hillpoint	205	40	0				
Sheboygan	4/29-5/05	Plymouth	765	133	0				
Walworth	4/30-5/06	East Troy	15	5	0				
Walworth	4/30-5/06	Elkhorn	10	50	1				
Waukesha	4/30-5/06	New Berlin	220	63	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 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	4/30-5/06	Chipp Falls										
Columbia	4/30-5/06	Arlington										
Dane	4/30-5/06	Mazomanie										
Grant	4/30-5/06	Lancaster										
Manitowoc	4/30-5/06	Manitowoc										
Marathon	4/30-5/06	Wausau										
Monroe	4/30-5/06	Sparta										
Rock	4/30-5/06	Janesville	0	183	0	0	0	0	8	0	0	0
Walworth	4/30-5/06	East Troy										
Wood	4/30-5/06	Marshfield	0	6	1	0	0	0	0	0	2	1

[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.