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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

Hot and humid weather prevailed during the first days of August. Early week showers and storms maintained adequate moisture reserves for summer crops in most locations, while adding water to already saturated fields in the northwest, north-central and west-central areas. Above-average temperatures continued to promote rapid growth of corn, soybeans and third crop alfalfa. Corn progress is now ahead of the five-year average, with 72% of the annual crop at or beyond the silking stage as of August 1. This compares to 87% last year and a five-year mean of 67%. Condition ratings for corn and soybeans increased to 81% good to excellent, although the effects of the late July heat wave are now becoming evident in the south-central and southwest counties. Warm nighttime temperatures in the past week were very favorable for activity by nocturnal pest insects, including corn earworm migrants, western bean cutworm moths and the European corn borer.

LOOKING AHEAD

SOYBEAN APHID: The first economic infestation of the year was found in Portage County on July 29. The population observed was 451 aphids per plant on 100% of the plants. In 125 other soybean fields sampled as part of the annual survey, counts were generally less than 40 per plant. Foliar treatments are not justified until the 250 aphids per plant threshold has been exceeded. Controls are most effective during the full bloom to full pod (R2-R4) stages.

WESTERN BEAN CUTWORM: The annual flight has peaked statewide and is now declining. The DATCP network of 169 pheromone traps has registered a cumulative total of 2,469 moths as of August 3, a moderate increase over the 1,434 moths reported during the previous week. Based on the latest activity, growers can anticipate larvae appearing in fields for 1-3 more weeks. Moth activity is expected to subside by mid-August at most trap sites.

CORN EARWORM: The combination of favorable southerly winds and precipitation on August 1-2 resulted in increased flights from source regions in the Plains and southern states north into portions of Wisconsin. Significant flights of moths were registered for the second week in Dane County and the Hancock Agricultural Station reported 119 moths. A nightly count of 10 moths for two consecutive evenings should be viewed as an early warning to begin monitoring and treatment of silking sweet corn fields.

EUROPEAN CORN BORER: The treatment window for second generation larvae has opened in locations where the degree day standard has surpassed 1,550 (base 50°F). Corn fields should be inspected next week for egg

masses and small larvae. Controls must be applied before larvae begin boring into corn stalks around 2,100 degree days.

European corn borer moth František ŠARŽÍK www.biolib.cz

EMERALD ASH BORER: Eight beetles were detected on three separate survey traps in northeastern Racine County on July 26. The specimens were sent to federal identifiers and subsequently confirmed as the emerald ash borer (EAB). The beetles were discovered during routine inspection of the traps. This is the first report of EAB in Racine County, although the county has been under quarantine since 2009 due to its close proximity to the Milwaukee County infestation.

JAPANESE BEETLE: Reports indicate beetles are still very abundant in orchards, yards and nurseries, while recent surveys have found extremely high numbers in soybean fields in Dane, Chippewa, Eau Claire, Richland and Trempealeau counties. The problem is unlikely to subside for several more weeks.

FORAGES

POTATO LEAFHOPPER: Counts in alfalfa remain moderate in most fields and high at a few sites. Surveys in the west-central and northwest counties yielded 0.4-5.1 per sweep, with an average of 1.3 per sweep. Scattered fields have populations sufficient to justify treatment, but in most instances, early cutting is the preferred control method. Nymphs are still common in sweep net collections.

ALFALFA CATERPILLAR: Butterflies are numerous in flowering third crop alfalfa in central and western Wisconsin. Surveys in the past week found low-moderate counts of 0.5-2.7 larvae per sweep.

PLANT BUG: Representative counts rarely exceed 3.2 per sweep. The alfalfa plant bug predominates in the northern and west-central areas, while the tarnished plant bug appears to be more common in the south. Nymphs of various maturities were noted in all surveyed fields.

DEGREE DAYS JANUARY 1 - AUG 3

LOCATION	50°F	2010	NORM	48°F	40°F
Dubuque, IA	1975	2112	—	1768	3144
Lone Rock	1894	2063	—	1642	3050
Beloit	1995	2210	—	1753	3180
Madison	1838	2042	1789	1627	2967
Sullivan	1835	2092	1820	1638	2961
Juneau	1763	2005	—	1576	2851
Waukesha	1634	1905	—	1583	2692
Hartford	1627	1868	—	1582	2663
Racine	1555	1859	—	1514	2598
Milwaukee	1544	1807	1628	1511	2566
Appleton	1585	1855	1653	1536	2601
Green Bay	1485	1713	1593	1520	2474
Big Flats	1627	1870	—	1533	2666
Hancock	1643	1897	1768	1535	2686
Port Edwards	1598	1825	1688	1524	2620
La Crosse	1851	2053	1940	1660	2988
Eau Claire	1683	1878	1749	1609	2739
Cumberland	1502	1700	1662	1480	2506
Bayfield	1176	1356	1281	1206	2082
Wausau	1463	1680	1604	1458	2435
Medford	1487	1674	1449	1460	2461
Crivitz	1396	1634	—	1419	2361
Crandon	1322	1517	1304	1313	2248

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

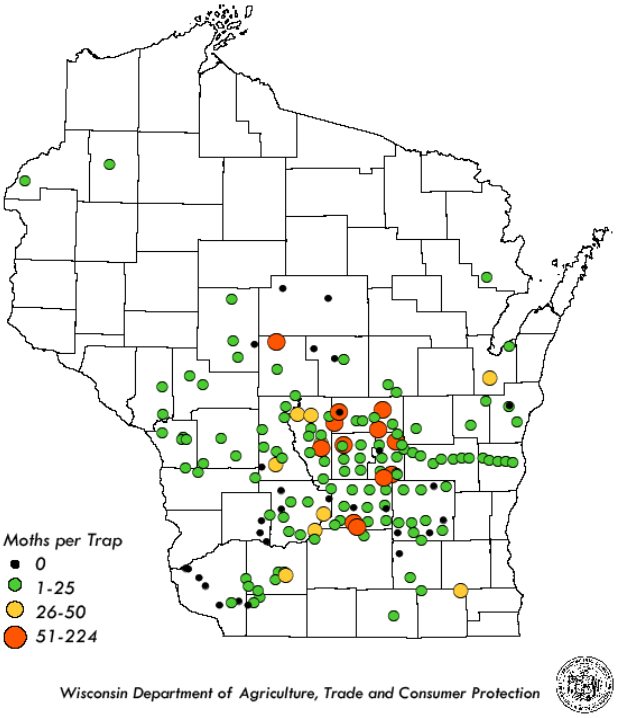
CORN

EUROPEAN CORN BORER: The peak in summer moth activity should occur before August 12 in the southern and central counties and August 29 in the northern counties, a few days earlier than last predicted. Pupae and fifth instar larvae are still common in many corn fields, and these stages will contribute to the flight in coming weeks. The optimal treatment period for second generation larvae has opened in the southern and central

counties where 1,550 degree days (base 50°F) were surpassed as of August 4.

WESTERN BEAN CUTWORM: The phenology model for this insect suggests that 75% of the annual moth population has emerged as far north as Stevens Point in Portage County. Moth counts have begun to decline across the southern half of the state. By contrast, emergence is only 50% complete in the north-central and northeastern counties where the peak flight is underway. High counts for the period of July 28-August 3 were 101 moths in the black light trap near East Troy in Walworth County and 93 moths in the pheromone trap near Arlington in Columbia County.

2011 Western Bean Cutworm Trap Counts



CORN ROOTWORM: Corn surveyed in the southwest district yielded averages of 0-0.9 beetles per plant, with economic counts of 0.75 or more beetles per plant in only 3 of 14 fields sampled. An exceptional field near Bloomington in Grant County had an extreme population of 8.9 beetles per plant, but counts at other sites were still fairly low for early August.

SOYBEANS

SOYBEAN APHID: The annual survey is partially complete and preliminary results show very low populations throughout the state. Less than 5% of the 125 fields examined from June 18-August 4 had densities of 26-101 aphids per plant, 93% had 1-25 per plant, and 2% had no apparent population. Only one surveyed field in Portage County had an average count above the 250 aphids per plant threshold. A follow-up evaluation is planned for mid-August at the same sites to determine the rate of aphid increase and where controls have been applied.

JAPANESE BEETLE: This insect continues to cause light to moderate (2-18%) defoliation of soybeans in the southern and west-central areas, particularly along field margins. Moderate damage and extremely high numbers of beetles were noted in Chippewa, Eau Claire and Trempealeau counties this week. The economic threshold for Japanese beetle and other leaf feeding soybean pests is 20% defoliation between bloom and pod fill. Spot treatment is an acceptable form of control for fields with the heaviest injury occurring in the peripheral areas.

GREEN CLOVERWORM: Larvae are common in field collections in the southern and western counties where counts range from 1-4 per 100 sweeps. Defoliation was less than 5% in surveyed fields and reports of economic damage by this insect have not been received as of August 4. Based on the low counts observed, populations in soybeans are unlikely to attain the very high levels found in many fields at this time last season.

Green cloverworm larva *Krista Hamilton DATCP*

FRUITS

APPLE MAGGOT: Emergence and oviposition continued for the sixth consecutive week, but activity has likely peaked in all but the southeast, north-central and north-

eastern areas. Trap counts have been unusually low this season and some monitoring sites have yet to capture a single fly. Apple maggot flies are expected to persist in orchards for several more weeks, so continued maintenance of red sphere traps is recommended.

JAPANESE BEETLE: Spot treatment of individual trees should be considered for those orchards that continue to experience high numbers of beetles. This pest is still very active and abundant as far north as Chippewa County.

CODLING MOTH: Most apple orchards are 250 or more degree days (base 50°F) beyond the second biofix and treatment for second generation larvae has begun. An increase in moth counts from the spring to summer flight suggests that some degree of fruit injury is probable later this month and fruits should be closely inspected for damage. Apple growers are reminded to rotate insecticides between generations to prevent resistance to chemical materials. Selective larvicide applications are an acceptable alternative to orchard-wide treatment for sites with variable larval pressure between cultivars or blocks.

Codling moth larval damage to apples Patrick Clement flickr.com

VEGETABLES

CORN EARWORM: Moths appeared in significant numbers at Hancock in Waushara County in the past week. Sweet corn growers in the central area can expect infestations if silking fields are not monitored and treated punctually. Larvae were noted in Jackson and Monroe County corn fields on August 1, and it is reported that treatments have been underway for two or more weeks in southern Wisconsin. Pheromone trap counts from July 28-August 3 were as follows: Chippewa Falls 0, Coles Valley 0, Coon Valley 1, East Troy 1, Hancock 119, Janesville 8, Manitowoc 0, Mazomanie 8, Prairie du Chien 0, and Wausau 2.

Corn earworm larva Mark Moore Moore Communications

LATE BLIGHT: Since the July 6 detection of late blight on tomato in Waukesha County, Wisconsin still has no new cases of the disease. Late blight on potato has not been confirmed anywhere in the state this year.

ONION MAGGOT: The third generation of flies should begin emerging in the southwest, south-central and west-central areas in the week ahead, following the accumulation of 3,230 degree days (base 40°F). Since this final generation of flies will produce larvae that overwinter in cull onions and old bulbs left behind in fields, good sanitation or rotating to a non-crop host are recommended for growers who experienced onion maggot problems earlier in the season.

FLEA BEETLE: Home gardeners and commercial growers continue to report damage to cole crops and various leafy vegetables. Flea beetles are extremely abundant this year and have caused considerable defoliation statewide. Chemical treatment is seldom advisable or economical at this late point in the season.

CUCURBIT DOWNY MILDEW: This disease was detected in Dane and Columbia counties since the last report. According to the ipmPIPE disease forecast at http://cdm.ipm pipe.org, the risk of disease spread is currently low, but this may change in the week ahead. Inspection of cucumbers, cantaloupes, pumpkins, squash and other cucurbits for initial downy mildew symptoms should begin in the southeastern and east-central growing areas.

WEEDS

GIANT RAGWEED: The prevalence of 10 foot tall plants in field crops statewide indicates that giant ragweed is one of the most common weed escapes again this season. Ineffective ragweed control usually results from a combination of its competitive characteristics (i.e. early seedling emergence, staggered emergence times, and rapid growth rate) and failed management programs.

Giant ragweed is highly adapted to survive newer agronomic practices such as earlier planting and reduced tillage. The most consistent control programs are those that combine a sequential management approach that includes the use of both preemergence (PRE) and postemergence (POST) herbicide applications. Management programs for giant ragweed should include the following:

- Control weeds that emerge prior to planting with tillage or a preplant burndown application.
- Apply PRE herbicides with activity on giant ragweed to reduce competition with crops, provide flexibility in the timing of POST applications, and minimize the need for additional POST glyphosate applications.
- Where a PRE herbicide is used, apply POST herbicides before plants are 6-10 inches tall. If a PRE is not used, apply when giant ragweed is less than 6 inches tall. With non-glyphosate herbicides, applications should be made prior to 4 inches tall.
- Scout fields two weeks after the POST application. Control escapes or plants that emerge after the initial POST application with a second POST application.

NURSERY & FOREST

SHOT HOLE DISEASE: Nursery inspectors observed this disease on purple sand cherry in Columbia and Dane counties. The shot holes or tatters that appear on the leaves are the late-season symptoms of earlier fungal or bacterial leaf spots. Diagnosing the causal agent is difficult at the shot hole stage, after the initial leaf spots have become leaf holes. Treatment is not advised unless the specific cause can be identified.

PEONY RED SPOT: Peonies at nurseries in Crawford and Richland counties were severely infected with this fungal disease. Late-season symptoms are large, irregular blighted areas on the leaves that first appeared in spring as circular, reddish-purple leaf spots. All above-ground portions of peonies are susceptible to red spot, so cutting foliage back to ground level in fall is strongly recommended. Fungicides can be effective, but only if applied in spring, when new shoots are 2-4 inches tall.

Red spot on peony leaves *Liz Meils DATCP*

LEAF SCORCH: A wide assortment of nursery plants statewide are exhibiting leaf scorch, characterized by browning of the leaf margins and yellowing or darkening of tissues between the primary veins. This physiological disorder is common in trees and shrubs that are stressed due to drought, transplanting, nutrient deficiency, inadequate space for root growth and soil compaction. Affected plants generally recover once the stress factor has been resolved.

Leaf browning due to sun scorch *Liz Meils DATCP*

APPLE INSECT & BLACK LIGHT TRAP COUNTS JULY 28 - AUGUST 3

COUNTY	SITE	STLM[1]	RBLR[2]	CM[3]	OBLR[4]	OBLR[5]	AM RED[6]	YELLOW[7]	GDD 50°F
Bayfield	Keystone	22	8	3	5	—	*8	*14	
Bayfield	Orienta	22	3	0	3	3	0	0	
Brown	Oneida	150	40	18	2	—	0	0	
Chippewa	Chippewa Falls	—	4	15	3	0	0	0	1161
Columbia	Rio	—	—	—	—	—	—	—	
Dane	Deerfield	677	14	2	1	—	*5	0	
Dane	Mt. Horeb	0	22	8	2	—	0	0	
Dane	McFarland	80	56	32	—	—	**25	—	
Dane	Stoughton	110	18	15	1	0	*0	**3	1712
Dane	West Madison	27	5	4	4	—	*2	—	
Fond du Lac	Campbellsport	25	150	0	15	—	0	0	
Fond du Lac	Malone	50	125	16	4	—	0	0	
Fond du Lac	Rosendale	76	45	2	1	—	*2	*0	
Grant	Sinsinawa	0	8	6	0	0	0	0	
Green	Brodhead	1	39	10	1	1	*0	*0	
Iowa	Mineral Point	143	50	13	1	0	0	0	1799
Jackson	Hixton	22	4	1	7	0	0	0	
Kenosha	Burlington	200	61	16	3	—	0	0	1583
Marinette	Niagara	346	19	5	0	—	2	0	
Marquette	Montello	28	2	4	0	—	*0	*0	
Ozaukee	Mequon	15	44	6	2	—	*2	*0	1592
Pierce	Beldenville	391	243	28	0	0	*0	*1	
Pierce	Spring Valley	47	33	12	0	0	*0	*0	
Polk	Turtle Lake	—	—	—	—	—	—	—	
Racine	Raymond	195	135	3	1	—	*0	*1	
Racine	Rochester	632	31	15	1	—	*12	*1	
Richland	Hillpoint	222	55	20	7	—	**0	**1	
Sheboygan	Plymouth	—	—	—	—	—	**0	0	
Walworth	East Troy	5	6	0	4	—	**0	**0	
Walworth	Elkhorn	50	5	0	10	—	**0	**0	
Waukesha	New Berlin	70	40	14	11	—	*0	*0	

[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	7	0	0	0	0	0	0	8	0	0
Columbia	Arlington	2	2	0	0	0	1	3	29	7	0
Dane	Mazomanie	2	1	0	0	1	0	1	2	0	0
Grant	Prairie du Chien	13	0	0	0	0	1	0	2	1	0
Manitowoc	Manitowoc	0	13	0	0	0	0	0	0	20	6
Marathon	Wausau	1	5	5	3	57	0	5	29	51	0
Monroe	Sparta	1	0	0	0	0	2	0	97	1	0
Rock	Janesville	12	14	2	0	0	0	11	1	15	0
Walworth	East Troy	11	2	0	0	1	1	0	101	6	0
Wood	Marshfield	15	32	8	0	20	13	21	19	51	3
Vernon	Coon Valley	31	12	5	0	11	4	4	20	15	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.