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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

Erratic weather characterized by blustery winds, occasional rainfall, and brief periods of sunshine prevailed in the past week. Temperatures varied widely from the low 20s to the high 70s. A low pressure system centered over the state on Monday generated scattered light rain in the east and a mixture of rain and snow in the northwest. Portions of southern and western Wisconsin were under a wind advisory during the day. In Ashland, Bayfield and Washburn counties, some locations recorded snowfall totals of 1.4-3.0 inches on April 16. High pressure brought mostly sunny skies and light winds to the state on Tuesday before rain showers returned on Wednesday and Thursday. Meanwhile, the state's fruit growers continued to monitor the effects of April freezes on early-blooming fruits and other temperature-sensitive plants, while row crop producers were cultivating and applying fertilizer before planting this year's crops. Intermittent precipitation during the week disrupted fieldwork but provided much-needed moisture after a drier-than-normal winter and early spring.

LOOKING AHEAD

ALFALFA WEEVIL: Many alfalfa fields still have no detectable larval population. The average number collected in the last reporting period was 3 per 50 sweeps, although an exceptional field near Darlington in Lafayette County contained 18 per 50 sweeps. Surveys for larvae in La Crosse, Monroe and Vernon counties were negative. Close inspection of fields for small larvae and leaf tip feeding should begin next week.

BLACK CUTWORM: The primary damage period is expected to begin by May 15, or 300 degree days after the first significant migration event on April 1. Near Janesville in Rock County, 101 degree days (base 50°F) have accumulated since the first major flight was documented. Routine scouting will be required from corn emergence until the 5-leaf stage (V5).

PLUM CURCULIO: Migration into apple orchards has started. The first overwintered adults were observed on perimeter trees in southern Wisconsin orchards last week. Signs of infestation should become evident in early-blooming varieties in the 14 days after petal fall.

EUROPEAN CORN BORER: The first spring moths could appear in black light trap collections in the week ahead. The degree day accumulation at Beloit, Lone Rock and Platteville is expected to surpass the 374 (base 50°F) standard at which corn borer flight begins over the weekend. Black light trappers are advised to carefully examine trap contents during the next two weeks for early moths.

EMERALD ASH BORER: Preventive treatment of ash trees should be initiated at this time. Optimal timing for soil injections and drenches is between mid-April and mid-

May to allow 4-6 weeks for the material to be translocated throughout the vascular tissues before larvae establish. Trunk-injected products must be applied after ash tree foliage has expanded but before egg hatch. Treatment is recommended only for healthy ash trees within 15 miles of a known infestation.

Emerald ash borer www.ipm illinois edu

NEW TEMPERATURE NORMALS: The normals listed in the accompanying degree day table represent the 30-year average temperature for the period of 1981-2010. These "new normals" were calculated by the Wisconsin State Climatology Office (WSCO) and replace the previously used normals for 1971-2000. WSCO data indicate that the statewide annual average temperature for Wisconsin has increased by 0.6 Fahrenheit degrees. Similarly, the new 1981-2010 temperature normals for the nation increased by approximately 0.5 Fahrenheit degrees.

DEGREE DAYS JANUARY 1 - APRIL 18

LOCATION	50°F	2011	NORM	48°F	40°F
Dubuque, IA	352	94	134	361	652
Lone Rock	358	81	—	356	634
Beloit	368	100	136	372	658
Madison	340	68	124	341	611
Sullivan	343	73	109	340	612
Juneau	318	60	—	315	579
Waukesha	280	51	—	372	658
Hartford	272	50	—	341	611
Racine	251	43	—	340	612
Milwaukee	240	43	101	315	579
Appleton	254	35	85	249	495
Green Bay	208	28	79	207	443
Big Flats	308	52	—	298	561
Hancock	296	48	111	286	547
Port Edwards	283	41	109	276	532
La Crosse	320	74	136	321	601
Eau Claire	262	52	106	259	515
Cumberland	209	44	77	206	449
Bayfield	133	29	—	125	318
Wausau	234	30	83	228	472
Medford	226	30	65	225	466
Crivitz	181	28	—	174	407
Crandon	183	25	57	177	408

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

FORAGES

ALFALFA WEEVIL: Larvae are beginning to emerge in alfalfa in advanced locations, but counts remain low in most fields. Surveys in Dodge, Grant, Iowa, Lafayette and Marquette counties found 1-18 per 50 sweeps from April 13-18. Alfalfa fields in the southern part of the state should start showing leaf tip feeding caused by this pest before the end of the month.

PEA APHID: Alfalfa surveyed in the south-central and southwest counties showed counts of 2-22 aphids per 50 sweeps this week. The highest numbers were noted in Iowa and Lafayette counties. Although recent cool weather has been conducive to pea aphid development, the rainfall and wet conditions may contribute to the spread of fungal pathogens which suppress population growth. The optimal temperature range for rapid increases in aphid densities is 62-67°F.

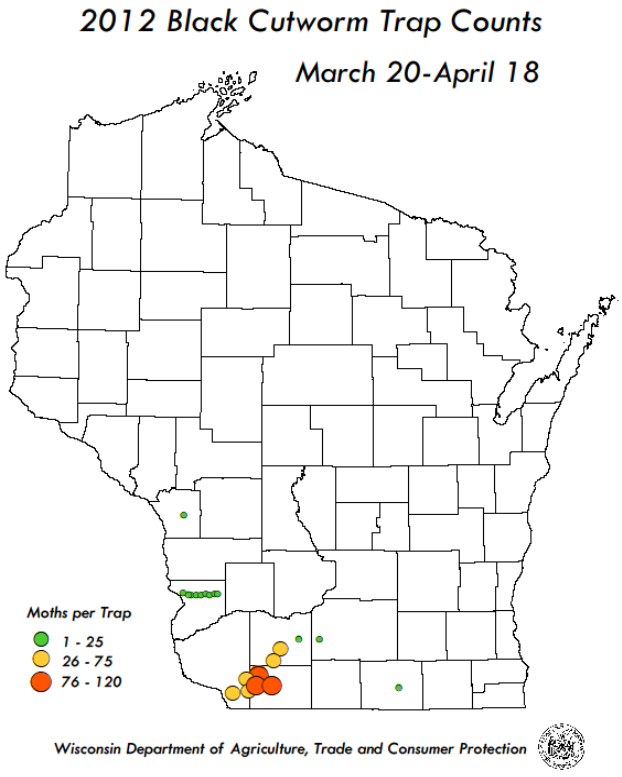
ALFALFA CATERPILLAR: Larvae in all stages of development average 1-2 per 50 sweeps in southern Wisconsin. Damage to the first crop should be insignificant since many of the caterpillars appear to be heavily parasitized by the braconid wasp, *Cotesia medicaginis*. Affected larvae stop feeding soon after parasitism begins and perish in about five days.

ASTER LEAFHOPPER: Migrants are present in moderate numbers in alfalfa fields as far north as Jackson County. Counts range from 3-7 per 50 sweeps at some sites. The early April arrival of this insect suggests that carrots, lettuce and numerous other vegetables and flowers will be at risk of aster yellows disease next month. Aster leafhoppers annually migrate to Wisconsin from the southern US, the same source region from which many of the state's migrant pest populations originate.

TARNISHED PLANT BUG: Counts of this insect were low and ranged from 1-5 per 50 sweeps, with an average of 3 per 50 sweeps. The first small nymphs could appear in sweep net collections by early May. Reports from southern Wisconsin apple orchards indicate the adults are feeding on developing fruit buds, causing bud blast and preventing flowers from opening.

CORN

BLACK CUTWORM: Migrants arrived in high numbers again this week. The network of 21 pheromone traps distributed in southwestern Wisconsin registered another 366 moths, for a cumulative total of 734 moths as of April 18. Moths began appearing in the state by late March this year and egg deposition is now occurring on winter annual weeds such as common chickweed, peppergrass and yellow rocket in no-tillage and reduced tillage fields. Larvae resulting from the spring flight could begin cutting corn seedlings as early as May 15.



TRUE ARMYWORM: Large numbers of moths apparently arrived with the storm systems on Sunday, April 15. The agriculture agents from Monroe and Rock counties both noted numerous moths on Monday and Tuesday after the severe weather. The pheromone trap at East Troy produced 79 specimens this week, while 30 were caught at Janesville on the nights of April 15 and 17. Substantial armyworm migrations can be an indicator of potential larval outbreaks and should be considered an advanced warning. Other nocturnal moths appearing at black light trap sites were the black cutworm, the celery looper and the variegated cutworm.

EUROPEAN CORN BORER: Most overwintered corn borers are still in the pupal stage, but a few early spring moths could emerge before the end of the month. As stated last week, a generally small flight is anticipated based on last fall's extremely low population of only 0.09 borer per plant.

European corn borer moth *František ŠARŽÍK www.biolib.cz*

SEEDCORN MAGGOT: Corn establishment problems due to this soil insect seem improbable for most of the state this spring, but localized problems are a possibility. Failure of seedlings to emerge is usually the first sign of infestation.

SMALL GRAINS

RUST ON WHEAT: The latest issue of the Cereal Rust Bulletin reports that the early spring is leading to significant development of rusts on grains throughout the Southern U.S., particularly wheat leaf rust and wheat stripe rust. Since most rust of small grains in Wisconsin originates in the South (the exception being crown rust of oats, which has an alternate host of buckthorn), this information should be of interest to Wisconsin wheat growers.

Reports from Texas also indicate that some wheat varieties which had previously shown resistance to stripe rust are now fully susceptible, suggesting a change in races in that area.

Observations on four wheat fields in Dane and Dodge counties this week found no rust. Symptoms of tan spot and powdery mildew were present in one field each at low levels of severity, though the incidence of powdery mildew was very high. Wheat was still tillering (Feekes stage 3), but development may be rapid in this unusual growing season.

Although it is probably early to begin scouting for disease development, the abnormally warm spring and potential for spore production in the south should have growers preparing to spend time in their wheat fields this year.

FRUITS

PLUM CURCULIO: Overwintered adults are migrating into orchards. A report from Orchard IPM Consultant John Aue states that both the insect and damage were observed on the edges of two orchards last week. Feeding and oviposition activity can be expected to increase with warmer temperatures next week.

OBLIQUEBANDED LEAFROLLER: Larvae noted in orchards in the past week ranged in development from second- to fourth-instar. The later instars are evident in the buds and should be fairly easy to detect. Unlike other common fruit moths which overwinter as pupae and emerge as adults by early April, the OBLR overwinters in the second- and third instar stages and must complete larval development and pupate before emerging in May. Pheromone traps should be placed next week to capture the first OBLR moths of the 2012 growing season.

Obliquebanded leafroller moth *Ilona L. bugguide.net*

CODLING MOTH: The first sustained capture of moths, referred to as the “biofix”, is anticipated in the next 1-2 weeks in southern and central orchards. The codling moth flight begins in Wisconsin from 201-340 degree days (base 50°F). According to the 50°F column in the degree day table on Page 9, the upper range of this threshold has been surpassed near Beloit, Dubuque, Lone Rock and Sullivan. Daily monitoring is recommended over the next two weeks to establish the biofix.

REDBANDED LEAFROLLER: Larval emergence has begun at locations where 228 degree days (base 50°F) have accumulated. The first RBLR larvae generally appear around petal fall and this is when scouting should commence. Controls applied at petal fall for other target pests usually provide satisfactory control of RBLR.

SPOTTED TENTIFORM LEAFMINER: The spring flight has accelerated in the southern half of the state. Presumably, egg laying is heavy at this time. Sampling for first generation sapfeeder larvae is advised 10-14 days after a peak flight (i.e. high trap count) has occurred. A count of one mine per 10 leaves signals the population is high and may increase to economic levels by the second generation.

TARNISHED PLANT BUG: Adults are reportedly causing damage to flower buds in southern Wisconsin apple orchards. Tarnished plant bug concerns are secondary to frost and freeze damage for now, but the levels noted suggest this pest warrants close attention. Chemical intervention at petal fall or first cover may be required for some orchards this spring.

APPLE SCAB: The first lesions were observed on April 15-16. Ordinarily scab lesions are rare and difficult to see at this time of year, but with the early spring they are relatively easily to find in some orchards and in some varieties. Most are on the first leaves at the base of the cluster, at the leading edge of the leaf.

VEGETABLES

IMPORTED CABBAGEWORM: Adults are emerging in greater numbers and ovipositing on cruciferous weeds and available early-planted cole crops. Close examination of transplants for eggs and small larvae is critical during this oviposition period. Infestation levels in cabbage should not exceed 30% at the transplant to cupping development stages.

CABBAGE MAGGOT: Peak emergence of flies theoretically has occurred near Green Bay and Wausau following

the accumulation of 300 degree days (base 43°F) last weekend. Damage by this pest can be averted by planting or transplanting cole crops 1-2 weeks from now, after most of the population has pupated.

COMMON ASPARAGUS BEETLE: Egg deposition has begun in the central and northern parts of the state. The larvae of this insect damage the ferns and spears of asparagus. Both larval feeding and adult egg-laying can render spears unmarketable.

WEEDS

GARLIC MUSTARD: Flowering plants are apparent along roadsides and in wooded areas throughout the state. Mechanical control measures should be implemented at this time, as plants are in bloom and prior to seed set. Pulling individual plants by hand is effective in reducing populations and seed productivity as long as the upper portion of the root is removed. Plants should be bagged and disposed of to prevent seed maturation. Landfill disposal of garlic mustard and other invasive plants collected for eradication purposes is permitted if the weeds are separated from other yard waste and placed in a clear plastic bag.

WILD PARSNIP: Controls directed against newly emerged, vegetative plants should begin in the next 2-3 weeks. Options include herbicide treatment, manual removal and burning. Foliar herbicides spot-applied to vegetative plants are most useful in spring. Removal of plants by hand is practical through mid-July, but extreme caution must be taken to protect skin from its toxic sap. The third option, burning plants, is recommended from May to mid-June, but only for trained individuals.

CREEPING CHARLIE: The treatment window for control of creeping Charlie is from 200-350 degree days (base 50°F), while plants are in full bloom and most susceptible to herbicides. The upper range of this threshold is approaching for much of southern Wisconsin, indicating controls should be implemented in the next week.

NURSERY & FOREST

HETEROSPORIUM LEAF SPOT: This common leaf spot disease of iris was observed on several plants in a Dane County nursery. Symptoms appear early in the season as brown spots with water-soaked margins near the leaf tips. After blooming, the spots enlarge rapidly, coalesce, and may cause death of the leaf from the tip back. Later the spots turn yellow to reddish-brown with characteristic gray centers. Although the fungus does not attack the bulbs or rhizomes, premature killing of the leaves can weaken plants and cause gradual decline. Since the fungus overwinters on dead iris leaves, removing and disposing of all diseased leaves in fall will reduce the amount of inoculum available for infection in spring. Under severe disease conditions, a fungicide spray program is recommended.

Heterosporium leaf spot on iris *Liz Meils DATCP*

BLACK KNOT: The black, irregular-shaped galls apparent on the branches of many wild cherry and plum trees this spring are characteristic symptoms of black knot, a very common fungal disorder of trees in the genus *Prunus*. Severe infection by this disease is disfiguring and potentially fatal if the galls girdle large limbs or the tree trunk. All infected branches and twigs must be pruned 6-8 inches below each gall to adequately control black knot. Pruning should occur in winter or early spring, before fungal spores are released from existing galls. Fungicide treatment is not advised.

JUNE BEETLE: Reports of adults have come in from Crawford, Dane and Walworth counties. Emergence of June beetles, like most other resident insects, is about a month ahead of schedule.

GYPSY MOTH: Late April is the recommended time to apply sticky barrier bands to oak trees to reduce larval movement into the canopy. This tactic is a moderately effective alternative to the use of insecticide sprays and may decrease defoliation by as much as 47% in high-density areas. Barrier bands must be maintained all season. Residents and property owners considering ground-based insecticide treatments should consult with an arborist or tree service in the immediate future.

APPLE INSECT & BLACK LIGHT TRAP COUNTS APRIL 12 - 18

COUNTY	SITE	STLM[1]	RBLR[2]	CM[3]	OBLR[4]	OBLR[5]	AM RED[6]	YELLOW[7]	GDD 50°F
Bayfield	Keystone	—	—	—					
Bayfield	Orienta	—	—	—					
Brown	Oneida	800	105						
Chippewa	Chippewa Falls	50	52	0					
Columbia	Rio	19	35	0	0				
Dane	Deerfield	575	28	1					
Dane	McFarland	248	420	0					
Dane	Mt. Horeb	63	248	0					
Dane	Stoughton	29	83	0					
Dane	West Madison	—	—	—					
Dodge	Brownsville	2	24	0	0				
Fond du Lac	Campbellsport	0	6	0					
Fond du Lac	Malone	3	75	0					
Fond du Lac	Rosendale	—	—	—					
Grant	Sinsinawa	9	12	2					
Green	Brodhead	26	52	0					
Iowa	Mineral Point	106	230	0					
Jackson	Hixton	86	42	0					
Kenosha	Burlington	70	82	0					
Marathon	Edgar	812	120	0					
Marinette	Niagara	0	2	—					
Marquette	Montello	137	0						
Ozaukee	Mequon	60	192	0					
Pierce	Beldenville	243	81	0	0				
Pierce	Spring Valley	28	126						
Polk	Turtle Lake	—	—	—					
Racine	Raymond	616	97						
Racine	Rochester	820	160						
Richland	Hillpoint	130	410						
Sheboygan	Plymouth	—	—	—					
Walworth	East Troy	3	5	0					
Walworth	Elkhorn	10	10	0					
Waukesha	New Berlin	80	25						

[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										
Grant	Lancaster										
Manitowoc	Manitowoc										
Marathon	Wausau										
Monroe	Sparta										
Rock	Janesville	0	30	1	0	0	0	9	0	0	1
Walworth	East Troy	0	79	10	0	0	0	0	0	0	0
Wood	Marshfield										
Vernon	Coon Valley										

[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.