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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

Mild and unsettled weather arrived on Tuesday and lingered throughout the week. Periodic showers and storms occurred across the state, as afternoon high temperatures moderated into the 70s. The return of warm weather promoted crop emergence and a rapid pace of fieldwork. At the start of the week, oat producers had seeded 80% of the state's crop, 65 percentage points ahead of last year and 33 points ahead of the 5-year average. Thirty-nine percent of oats were emerged by April 30. Corn planting continued in between showers, while the first acres of soybeans were planted in the southern counties. Episodic rainfall maintained favorable soil moisture for crops in all areas of the state, but caused alfalfa harvesting delays. Significantly higher populations of alfalfa weevil larvae, pea aphids and plant bugs were noted this week, and damage is probable for some fields if rainy weather further disrupts cutting of the first crop.

LOOKING AHEAD

ALFALFA WEEVIL: Larval counts and leaf tip damage have exceeded economic levels in a few south-central and southwestern Wisconsin alfalfa fields, although surveys show considerable regional variation in weevil pressure. Most fields north of Columbia County still have very low counts of less than 10 larvae per 50 sweeps and defoliation is well below the 40% threshold. Routine sampling is especially critical at this time.

EUROPEAN CORN BORER: The spring flight began on May 1 with the capture of two moths at the Coon Valley black light trap location. According to the European corn borer phenology model, the majority of first brood moths are not expected to emerge until late May in the southern areas and early June in the central and northern areas. Black light traps elsewhere should register the first moths of the season in the next 1-2 weeks.

TRUE ARMWORM: Another significant flight of 76 moths was recorded at Janesville from April 26-May 1. Small grains, corn, and other susceptible crops remain under a low to moderate threat of larval infestation this month and should be monitored for developing problems.

POTATO LEAFHOPPER: Surveys this week found migrants in all fields checked in Grant and Lafayette counties, but none were collected at sites north of the lower Wisconsin River in Crawford, Juneau, Richland and Vernon counties, or in the east-central area. Recent observations indicate the earliest migrants are not widely distributed beyond the southernmost Wisconsin counties.

BLACK CUTWORM: The annual migration accelerated this week with the capture of 369 moths and has to date yielded a cumulative total of 1,406 moths at 31 sites. Scouting is imperative for all corn fields during the 10-14 days after emergence and until the 5-leaf stage. Early detection and control is advantageous because later rescue treatments are often ineffective.

Black cutworm moth Brian Stone thenaturalstone.blogspot.com

DEGREE DAYS JANUARY 1 - MAY 2

LOCATION	50°F	2011	NORM	48°F	40°F
Dubuque, IA	415	128	233	424	800
Lone Rock	424	115	—	416	778
Beloit	430	146	239	431	801
Madison	398	101	221	395	744
Sullivan	395	116	203	389	742
Juneau	367	95	—	360	703
Waukesha	317	84	—	316	646
Hartford	309	80	—	307	631
Racine	282	73	—	286	602
Milwaukee	271	68	172	274	586
Appleton	299	57	170	291	614
Green Bay	246	42	158	243	555
Big Flats	367	76	—	349	692
Hancock	351	72	208	334	676
Port Edwards	338	62	205	324	660
La Crosse	390	98	244	387	751
Eau Claire	327	74	204	320	659
Cumberland	269	67	165	264	590
Bayfield	172	52	—	161	420
Wausau	278	48	167	267	586
Medford	274	48	142	268	589
Crivitz	215	42	—	206	512
Crandon	220	42	129	210	511

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

FORAGES

ALFALFA WEEVIL: Counts vary widely in first crop alfalfa. Larval populations in the south-central and southwest areas have increased to moderate-high levels of 4-87 per 50 sweeps. Individual fields in Grant, Lafayette and Rock counties have developed serious infestations with 40%-90% defoliation. Larval estimates in the east-central and west-central counties are substantially lower and range from 1-6 per 50 sweeps. Leaf tip damage in these areas is still insignificant. As previously stated, alfalfa weevil populations are expected to increase exponentially by mid-May and failure to harvest the first crop on time could result in severe damage by the larger and more destructive third- and fourth-instars. Regular monitoring is strongly recommended until the threat of rain subsides and conditions are suitable for alfalfa harvesting.

POTATO LEAFHOPPER: Migrants were collected for the first time last week in Jefferson and Rock counties. Surveys this week found leafhoppers at the rate of 1-16 per 50 sweeps in 11 of 67 sampled fields. High counts of 14-16 per 50 sweeps were noted in Grant and Lafayette counties. Their current distribution appears to be limited to the southernmost two tiers of Wisconsin counties.

PEA APHID: Levels have increased sharply since the last report. Representative counts now range from 22-99 per 50 sweeps in the southwest area, from 16-221 per 50 sweeps in the west-central area, and from 1-22 per 50 sweeps in the east-central area. Winged aphids were noted in Grant County on May 2.

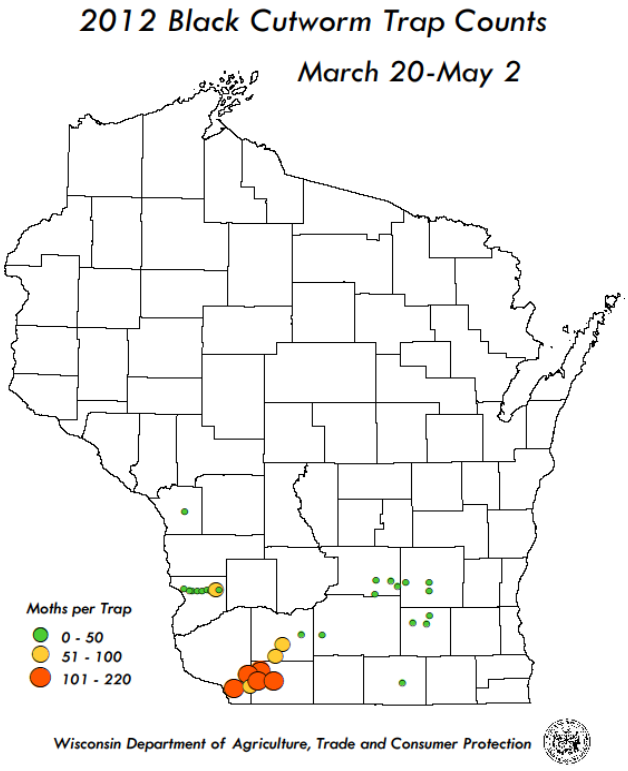
PLANT BUGS: Alfalfa surveyed in the southern half of the state showed low counts of 1-17 per 50 sweeps. The first small nymphs of the alfalfa plant bug were swept from scattered fields this week.

CORN

EUROPEAN CORN BORER: Moths are appearing in low numbers in black light traps. The spring flight is expected to escalate during the next 2-3 weeks and peak before the end of the month in the southern areas and by early June in the central and northern areas. Egg deposition should intensify by mid-May unless the weather turns cold.

BLACK CUTWORM: Large flights of 40-65 moths per trap were again registered at pheromone trap sites in the southwestern counties. The very high numbers of migrants collected since late March suggests that certain fields may be at high risk for black cutworm damage this month. Included in this category are poorly drained and low lying fields, those next to areas of natural vegetation,

and fields that are weedy or have reduced tillage. The start of the primary damage period has been projected for May 15. Crop consultants and field scouts are advised to begin inspecting corn (including Bt hybrids) for evidence of this pest next week. Pinholes in the leaves are an early indicator of potential cutting.



FRUITS

OBLIQUEBANDED LEAFROLLER: Late instar larvae (about 1 inch long) and rolled leaves were noted this week near Mineral Point in Iowa County, signaling that more adults should emerge in the near future. The first flight has already begun in Dane, Dodge, Pierce and Rock counties. Most larvae are in the intermediate to late-instars at this time.

CODLING MOTH: The numbers listed in the apple table on page 25 suggest that pheromone traps produced very few specimens from April 26-May 1. However, these counts may not reflect the most recent activity. A report from the cooperator near Beldenville in Pierce County states that 11 moths appeared in traps on the night of May 2. The biofix was likely established at several other locations on the same night.

REDBANDED LEAFROLLER: Counts of this pest have declined to their lowest levels in several weeks. The average count was 32 moths per trap from April 26-May 3, which compares to 48 last week, and 101 per trap the week before. Egg hatch has increased in response to the warmer weather and larvae in southern orchards now range from newly hatched to ¼ inch long.

SPOTTED TENTIFORM LEAFMINER: The comparatively low numbers of moths registered this week signals most apple orchards are in between the first and second flights. Populations in the southern two-thirds of the state consist mostly of the later-stage tissue feeder larvae.

PLUM CURCULIO: Weevil activity has resumed with the warmer weather. Growers should continue checking early-blooming cultivars and orchard perimeter trees for oviposition scars and feeding injury caused by this pest.

PLANT BUGS: Fruit growers should anticipate more plant bug adults appearing on apples, strawberries and other hosts as harvesting of alfalfa accelerates in the next two weeks. Nymphs are collecting in sweep nets, and could contribute to problems in fruit crops this spring.

SOYBEANS

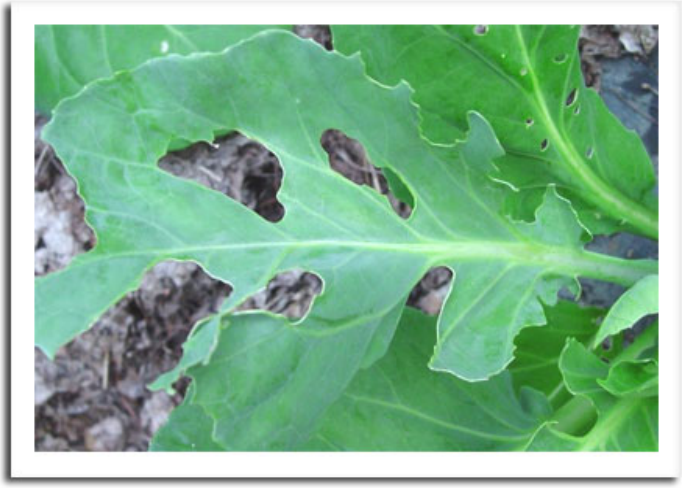
BEAN LEAF BEETLE: Overwintered beetles were found in only 1 of 67 alfalfa fields sampled this week. The first appearance of this insect was noted on May 2 in Lafayette County. The very low number of beetles collected thus far suggests a minor risk of early soybean damage.

Bean leaf beetle *Steve Scott bugguide.net*

VEGETABLES

IMPORTED CABBAGEWORM: Larvae are appearing in areas of the state where 300 degree days (base 50°F)

have been surpassed. This includes most of the southern and central counties, as far north as Eau Claire. Cabbageworms chew large, irregular holes in leaves, bore into heads, and drop brown fecal pellets that contaminate the marketed product. Cole crops can tolerate considerable defoliation at the thinning or transplanting stages, but frequent sampling is recommended to assess populations and to avoid insecticide treatments that disrupt biological control. During the head-formation stages, even low numbers of larvae can cause economic damage. The biological insecticide, *Bacillus thuringiensis* (Bt) is very effective against early-instar caterpillars and is an organically acceptable form of control. Economic thresholds for cabbage are 30% infestation at the transplant to cupping stages and 20% infestation at cupping to early head stages.



Imported cabbageworm damage *marysveggiegarden.files*

ONION MAGGOT: Emergence of first generation flies continued at south-central and southwestern locations. The first flies are anticipated in the Eau Claire and Hancock areas next week, following the accumulation of 680 degree days (base 40°F). Flies of this spring generation are generally 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%. Home gardeners are advised to plant onion sets one week before fly emergence is predicted to avoid damage.

VARIEGATED CUTWORM: Low numbers of this nocturnal moth have been registered in the Janesville and Mazomanie black light traps since late April. Unlike standard cutworms which clip plants at ground level, this species climbs at night to feed on foliage, flowers, buds and fruits. The variegated cutworm is one of the most important cutworm pests of potatoes and tomatoes in home gardens. The brownish larvae are distinguished by 4-7 pale yellow, circular dorsal spots.

WEEDS

GARLIC MUSTARD: Dense stands of flowering plants are now evident across much of the state. Many of the plants are developing seed pods, or "siliques", suggesting that controls should be initiated very soon. Management options include pulling, cutting, applying herbicide, and repeated burning. Each of these methods must be implemented several years in a row to sufficiently deplete the seedbank. In addition, proper disposal of removed plants is imperative since the seeds will continue to mature after plants are pulled. Composting will not generate enough heat to kill the seeds and should not be used as a disposal method.

GIANT RAGWEED: Giant ragweed has become one of the most aggressive weed competitors in Wisconsin row crops in the last decade. Single-application herbicide programs in combination with the plant's own adaptations, such as lengthening of the emergence period and herbicide resistance, are thought to be factors contributing to its increased abundance. As more acres of corn and soybeans emerge this month, growers are reminded that fields should be checked for weed "escapes" and newly emerged weeds approximately two weeks after post-emergence herbicides are applied. Yield loss resulting from weed competition is most likely during the first 4-6 weeks following crop emergence.

Giant ragweed *Clarissa Hammond DATCP*

LEAFY SPURGE: This deep-rooted perennial, now flowering in advanced locations, degrades pasture quality,

displaces native vegetation, and is extremely difficult to control. Spurge populations may be reduced by sequential herbicide treatments applied in spring when the true flowers emerge, or in fall. Biological control is also effective but the required USDA and DATCP permits must be obtained prior to releasing any insect agents.

NURSERY & FOREST

CEDAR-APPLE RUST: Mature galls on juniper began sporulating by late April in southern Wisconsin. The bright orange, gelatinous tendrils that emerge from these galls release spores which can infect apples and related fruit trees 2-3 miles away. Cedar-apple rust alternates between junipers and rosaceous plants and requires both hosts to complete its life cycle. Removal of the galls before they sporulate is recommended to limit spread of the disease to the alternate hosts, apple, crabapple, hawthorn, quince, pear and serviceberry.

Cedar-apple rust gall on juniper *Liz Meils DATCP*

HEUCHERA RUST: Nursery inspectors observed symptoms of this disease on the foliage of coral bells in Jefferson County. The raised pustules with dark orange-red spores which develop on the undersides of leaves are diagnostic. Heuchera rust spreads rapidly under humid greenhouse conditions and can severely distort foliage. Retailers are advised to inspect incoming plants for rust and cull any that appear to be infected.

POWDERY MILDEW: This common fungal disease of ornamental plants is reported to be infecting coreopsis 'Early Sunshine' in a Jefferson County nursery. Powdery mildew is characterized on most plants by its grayish white powdery dusting on the upper leaves, which later causes the foliage to turn yellow and prematurely sensece. Reducing humidity levels and increasing air circulation will alleviate the problem.

Powdery mildew on coreopsis *Marcia Wensing DATCP*

PSEUDOMONAS BLIGHT: Potted lilacs in Jefferson and Washington 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 as soon as they occur, thinning plants to increase air circulation, and growing resistant varieties. Pruning shears should be disinfected with bleach or 70% alcohol between cuts.

Pseudomonas blight on lilac *Marcia Wensing DATCP*

GYPSY MOTH: The first of two Btk applications was completed at a few sites in Grant and Green counties on April 26. Spraying continued on May 2 in Grant, Green, Lafayette and Vernon counties. Second applications will likely be made at the same sites next week. Treatments in Green County have been completed for the year.

APPLE INSECT & BLACK LIGHT TRAP COUNTS APRIL 27 - MAY 2

COUNTY	SITE	STLM[1]	RBLR[2]	CM[3]	OBLR[4]	OBLR[5]	AM RED[6]	YELLOW[7]	GDD 50°F
Bayfield	Keystone	0	21	—	—				
Bayfield	Orienta	1	0	—	—				
Brown	Oneida	400	30	0					
Chippewa	Chippewa Falls	20	50	0	0				
Columbia	Rio	24	11	0	0				
Dane	Deerfield	301	27	3	—				
Dane	McFarland	0	63	0	0				
Dane	Mt. Horeb	5	7	0	—				
Dane	Stoughton	2	46	1.5	3				
Dane	West Madison	—	—	—	—				
Dodge	Brownsville	0	2	0	8				
Fond du Lac	Campbellsport	—	—	—	—				
Fond du Lac	Malone	18	4	0	0				
Fond du Lac	Rosendale	18	41	0	0				
Grant	Sinsinawa	0	0	0	0				
Green	Brodhead	13	8	0	2				
Iowa	Mineral Point	2	15	0	0				
Jackson	Hixton	35	28	1	0				
Kenosha	Burlington	75	4	0	—				
Marathon	Edgar	297	169	0	—				
Marinette	Niagara	0	8	—	0				
Marquette	Montello	12	0	0	0				
Ozaukee	Mequon	10	11	0	—				
Pierce	Beldenville	324	38	0	4				
Pierce	Spring Valley	53	118	0	0				
Polk	Turtle Lake	594	84	—	—				
Racine	Raymond	54	9	0	0				
Racine	Rochester	80	22	1	—				
Richland	Hillpoint	67	38	1	—				
Sheboygan	Plymouth	33	76	0	—				
Walworth	East Troy	—	—	—	—				
Walworth	Elkhorn	—	—	—	—				
Waukesha	New Berlin	65	1	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	0	0	0	0	0	0	0	0	0	0
Columbia	Arlington	0	6	0	0	0	0	3	0	0	0
Crawford	Prairie du Chien	0	2	2	0	0	0	0	0	0	0
Dane	Mazomanie	0	9	4	0	0	0	1	0	1	11
Fond du Lac	Ripon	0	9	1	0	0	0	1	0	0	0
Rock	Janesville	0	76	0	0	0	0	3	0	0	2
Walworth	East Troy	0	15	1	0	0	0	1	0	0	0
Wood	Marshfield	0	29	7	0	0	0	3	0	0	6
Vernon	Coon Valley	2	1	0	0	0	0	0	0	0	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.