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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

Rainy, unsettled weather disrupted spring planting efforts but improved soil moisture for crop emergence. Periodic showers and thunderstorms occurred throughout the week, though intervals of dry weather allowed fieldwork to continue in most areas. High temperatures were near or above normal for this time of year and ranged from the 60s to lower 80s. According to USDA NASS, remarkable advances in planting were made across Wisconsin during the previous week of dry, mild weather. An estimated 37% of the state's corn crop was planted from April 27-May 3, the highest percentage recorded for this period in over 30 years. Seeding of oats and potatoes was equally rapid, advancing 34 and 35 percentage points, respectively. The combination of seasonal warmth and early May moisture also coaxed apple trees into bloom and caused a noticeable increase in insect activity, with the first asparagus beetles, plum borers, and Colorado potato beetles appearing during the week.

LOOKING AHEAD

BLACK CUTWORM: A moderate flight of 75 migrants arrived this week, with moths reported as far north as Durand in Pepin County. Larvae resulting from the annual migration are expected to reach the corn-cutting fourth-instar stage by May 20 in southern Wisconsin. The low number of black cutworm migrants captured so far this spring indicates a minor risk of damage to vegetative corn later this month.

ALFALFA WEEVIL: Adults have become increasingly common and spring egg deposition is intensifying. Surveys to determine larval populations and assess defoliation should begin during the week of May 10.

EUROPEAN CORN BORER: Pupation of overwintered larvae has started in the south-central and southwestern areas of Wisconsin and the first spring moths could emerge as early as May 10 near La Crosse, May 14 near Madison, and May 16 near Hancock. Black light traps should be installed several days in advance of the flight.

CODLING MOTH: Emergence is likely to begin next week in southern and central Wisconsin apple orchards. Daily monitoring of pheromone traps is suggested once the first moth appears and until the biofix, or first sustained moth capture on consecutive nights, is documented.

COMMON ASPARAGUS BEETLE: Adults are depositing eggs on asparagus spears in the Milton area of Rock County and in other advanced southern Wisconsin locations where 150 degree days (simple base 50°F) have been surpassed. Optimal control of this pest requires elimination of the overwintered beetles early

in the season, before egg laying begins. Treatment is justified if 5% of plants are infested with beetles or eggs are found on 2% of asparagus spears.

Common asparagus beetle David Gould Leicester garden

FORAGES & GRAINS

ALFALFA WEEVIL: Larval emergence is expected to begin over the weekend in advanced southern and western locations. Regular sampling for larvae and leaf tip feeding should start around 300 degree days (sine base 48°F), or by May 8 near Janesville, May 11 near Hancock, and May 15 near Appleton.

POTATO LEAFHOPPER: The first distinct migration occurred late last month and leafhopper adults are now distributed in very low numbers across southern Wisconsin. Migrants were collected from 9 of 59 (15%) alfalfa fields surveyed as of May 6, as far north as Chaseburg in Vernon County.

PEA APHID: Alfalfa sampled this week contained counts of 1-49 aphids per 100 sweeps. Reproduction has not yet started.

TARNISHED PLANT BUG: Adults are more numerous than last week, but counts in alfalfa remain low. Surveyed fields in Columbia, Dodge, Richland, Rock, Vernon and Walworth counties contained an average of nine per 100 sweeps compared to three per 100 sweeps last week. The economic threshold for plant bugs in alfalfa is extremely high at five per sweep (or 500 per 100 sweeps) and is seldom exceeded until July or August.

DEGREE DAYS JANUARY 1 - MAY 6

LOCATION	50°F	2014	NORM	48°F	40°F
Dubuque, IA	319	171	269	300	517
Lone Rock	299	135	—	278	470
Beloit	301	179	274	280	495
Sullivan	193	87	235	174	329
Madison	280	124	257	257	440
Juneau	231	89	—	214	376
Racine	155	80	—	145	303
Waukesha	193	87	—	174	329
Milwaukee	159	77	200	146	299
Hartford	193	87	—	174	329
Appleton	210	60	—	194	355
Green Bay	164	47	189	162	310
Big Flats	271	98	—	241	379
Hancock	271	98	243	241	379
Port Edwards	261	84	240	231	385
La Crosse	317	132	285	301	511
Eau Claire	269	91	241	252	433
Cumberland	234	56	197	204	348
Bayfield	164	15	—	137	229
Wausau	209	47	198	187	318
Medford	204	42	170	181	311
Crivitz	153	39	—	136	256
Crandon	172	28	155	143	240

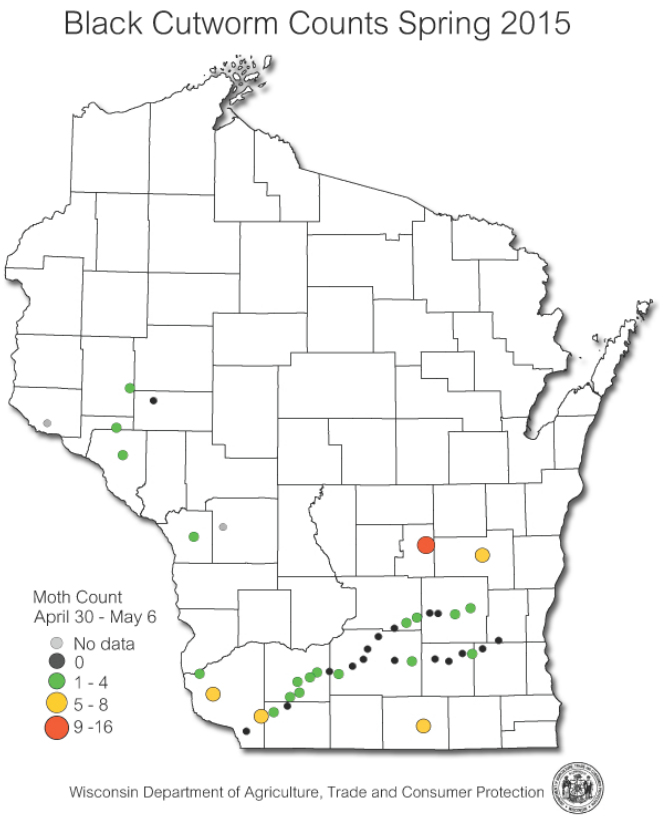
Method: ModifiedB50; Sine48; ModifiedB40 as of Jan 1, 2015. NORMALS based on 30-year average daily temps, 1981-2010.

CORN

EUROPEAN CORN BORER: Emergence of the first spring moths may start next week in advanced southern locations. Most overwintered larvae are in the pupal stage, which requires 10 days to complete at average daily temperatures of 65°F. Degree day accumulations near Beloit and La Crosse, currently the warmest locations in the state, are expected to surpass the 374 units (modified base 50°F) required for moth emergence by May 10.

BLACK CUTWORM: Moths arrived in moderate numbers this week. The DATCP network of 42 pheromone traps registered 75 migrants during the reporting period ending May 6, for a cumulative total of 117 moths to date. This week's capture of moths in 58% of the survey traps is indicative of a larger and more substantial flight, and signals that egg deposition has intensified 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 by May 20.



WIREWORM: This soil pest has been noted during surveys in the last two weeks and, like the black cutworm, can injure seedling corn this month. Untreated corn planted into fields formerly in alfalfa or pasture is most vulnerable to infestation. Damage should become evident shortly after emergence. In severe situations, or if wireworms have been a serious problem in the past, treatment may be necessary.

Wireworms *forestryimages.org*

SOYBEANS

SOYBEAN APHID: Spring surveys of common buckthorn have not yielded soybean aphid colonies as of May 6. The annual visit to known aphid overwintering locations in Illinois, Indiana and Ohio by entomologists David Hogg and David Voegtlin planned for next week should provide an indication of winter survival and spring abundance (or absence) on buckthorn. Despite extensive research conducted since the first detection of soybean aphid in Wisconsin in 2000, the overwintering habits of this insect are still poorly understood and no overwintering sites have been identified in Wisconsin to date.

Spring soybean aphids on buckthorn *Chris DiFonzo, Michigan State*

FRUITS

SPOTTED TENTIFORM LEAFMINER: Moths of the spring flight have been active for five or more weeks, and peak emergence has occurred at several orchard sites. Populations are now transitioning into the larval stages. The optimal sample period for first generation sapfeeder larvae is 10-14 days after a peak capture is registered. Pheromone trap counts for the period of April 30-May 6 ranged widely from 0-1,085 moths, with the high count reported from Edgar in Marathon County.

REDBANDED LEAFROLLER: Larvae are emerging in areas of the state where 228 degree days (simple base 45°F) have accumulated, including much of southern Wisconsin. The first RBLR caterpillars generally appear around petal fall, which is when scouting should commence. Treatments specifically for this apple pest and the STLM are usually not required.

CODLING MOTH: The first sustained capture of moths on consecutive nights, referred to as the "biofix", is anticipated in the next two weeks. Daily monitoring of traps is advised until the biofix date is established.

OBLIQUEBANDED LEAFROLLER: Pheromone traps should be in place to detect the first OBLR moths of the season. Larvae have resumed activity after overwintering under the bark of scaffold limbs and twigs and will first appear as ¼-inch, yellowish-green caterpillars with black head capsules feeding on blossoms and shoots. Early signs of feeding should be evident next week.

Obliquebanded leafroller moth Derrick Ditchburn www.dereila.ca

VEGETABLES

CABBAGE MAGGOT: Peak emergence of flies theoretically has occurred near Beloit, La Crosse, Lone Rock and Madison following the accumulation of 300 degree days (simple base 43°F) as of May 6. Emergence should peak next week across the southeastern and central counties. Damage by this pest can be avoided by planting or transplanting cole crops two weeks from now, after most of the population has pupated.

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

COLORADO POTATO BEETLE: Overwintered adults are emerging from hibernation and dispersing to plants near field edges. The early colonizing population is rarely damaging to young potatoes protected with a systemic neonicotinoid, but beetle abundance should be monitored to ensure effectiveness of insecticide products. Egg deposition and larval hatch can be expected by mid-May. The orange-yellow eggs are deposited in clusters of 15-30 on the undersides of leaves.

Colorado potato beetle Phillippe_Boissel flickr.com

ONION MAGGOT: Emergence of the first and most damaging generation of flies is likely to begin by May 15 in parts of southern Wisconsin. Basic cultural controls such as removing onion cull piles and rotating new seedings away from previous crops (at least ½ mile for commercial fields) have become even more critical now that the onion maggot has developed resistance to many of the insecticides used as granular furrow treatments at seeding. Proper sanitation and planting onion sets one week before fly emergence are the best preventative measures.

LATE BLIGHT: Potato growers are reminded that Wisconsin Administrative Code (ATCP 21.15(2)) requires potato cull piles to be fed, disked in or otherwise removed by May 20, to prevent late blight from developing on volunteer plants. Although no cases have been confirmed in Wisconsin so far this season, risk of this disease occurring again in 2015 is elevated given the presence of the late blight pathogen in the state in 2014.

NURSERY & FOREST

PINE NEEDLE SCALE: Emergence of first generation crawlers has begun across portions of southern and west-central Wisconsin, where lilacs are in full bloom.

Controls applied against this mobile stage shortly after egg hatch are most effective. The proper timing of insecticidal treatments should be determined by monitoring infested pines for newly emerged crawlers.

Pine needle scale *arbortech.biz*

CEDAR-APPLE RUST: Mature galls on juniper are sporulating in Richland County. 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 sporulation 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*

NR 40 INVASIVE SPECIES RULE: Revisions to the DNR's Chapter NR 40 Invasive Species Rule were enacted on Friday, May 1 and will be enforced by DATCP inspectors this season. The revised regulations include the addition of 42 new prohibited plant species, 29 new restricted plants, and two species listed as both prohibited and restricted. A phase-out period is provided for plants on the restricted list: three years for herbaceous species and five years for trees and shrubs. Plants on the prohibited list do not have a phase-out option.

Nursery operators and brokers are advised to review the proposed revisions and know the invasive plants regulated under Chapter NR40: http://docs.legis.wisconsin.gov/ code/admin_code/nr/001/40.

CROWN RUST: The orange-yellow cluster cups which produce spores capable of infecting oats, rye and other grasses are appearing on buckthorn leaves. Heavy amounts of rust inoculum on the buckthorn host may indicate greater rust potential for oats this year, should suitable conditions for infection develop.

Crown rust on buckthorn *Liz Meils DATCP*

GYPSY MOTH: Aerial spraying for gypsy moth caterpillars is scheduled to start around May 12 in southern Wisconsin. Twelve blocks are slated for treatment in Green, Lafayette and Rock counties through DATCP's Slow the Spread program, and a single block in Rock County is scheduled to be treated by the DNR's Suppression program. All treatments are dependent on weather conditions and gypsy moth development. Spraying starts at sunrise, and at most sites, a second application will be made three to seven days after the first application. Additional spray program updates, including information on treatment locations and progress, are available at gypsymoth.wi.gov.

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

COUNTY	SITE	STLM[1]	RBLR[2]	CM[3]	OBLR[4]	APB[5]	LPTB[6]
Bayfield	Orienta	0	0				
Brown	Oneida	650	68				
Clark	Greenwood	40	30			28	0
Columbia	Rio	343	223				
Crawford	Gays Mills	—	—				
Dane	Deerfield	—	—				
Dane	DeForest	17	164			0	0
Dane	Edgerton	263	121			2	0
Dane	McFarland	211	153				
Dane	Mt. Horeb	140	164			0	0
Dane	Stoughton	132	96			7	0
Fond du Lac	Campbellsport	52	110				
Fond du Lac	Malone	65	50			0	0
Fond du Lac	Rosendale	—	—				
Grant	Sinsinawa	22	31				
Green	Brodhead	600	128				
Iowa	Mineral Point	343	167				
Jackson	Hixton	102	55				
Kenosha	Burlington	215	142				
Marathon	Edgar	1,085	168				
Marinette	Niagara	4	35				
Marquette	Montello	486	121				
Ozaukee	Mequon	130	127				
Pierce	Beldenville	934	269				
Pierce	Spring Valley	139	111				
Racine	Raymond	303	98				
Racine	Rochester	540	224				
Richland	Hill Point	525	75			0	0
Sheboygan	Plymouth	585	113				
Walworth	East Troy	2	24				
Walworth	Elkhorn	98	20				
Waukesha	New Berlin	60	57				

[1]Spotted tentiform leafminer; [2]Redbanded leafroller; [3]Codling moth; [4]Obliquebanded leafroller; [5]American plum borer; [6]Lesser peachtree borer.

COUNTY	SITE	BCW[1]	CEL[2]	CE[3]	DCW[4]	ECB[5]	FORL[6]	SCW[7]	TA[8]	VCW[9]	WBC[10]
Columbia	Arlington										
Crawford	Prairie du Chien	0	2	0	0	0	3	0	1	0	0
Dane	Mazomanie										
Fond du Lac	Ripon	0	0	0	0	0	0	0	9	0	0
Manitowoc	Manitowoc										
Marathon	Wausau										
Monroe	Sparta										
Portage	Plover										
Rock	Janesville	0	1	0	0	0	1	0	16	0	0
Vernon	Coon Valley										

[1]Black cutworm; [2]Celery looper; [3]Corn earworm; [4]Dingy cutworm; [5]European corn borer; [6]Forage looper; [7]Spotted cutworm; [8]True armyworm; [9]Variegated cutworm; [10]Western bean cutworm.