Volume 55 No. 02 April 30, 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
2811 Agriculture Dr. Madison, WI 53718 • http://pestbulletin.wisconsin.gov

## WEATHER & PESTS

Light, scattered precipitation lingered over the state early in the week, temporarily interrupting fieldwork, but restoring moisture deficits for pastures, winter wheat and emerging spring crops. Daytime temperatures during this period were somewhat cooler, ranging from the low 40s to high 50s. Occasional frost was a concern with respect to fruit crops, many of which had bloomed during the early April heat wave. Reports from orchardists indicate that most apple trees and other temperature-sensitive fruits avoided serious damage. The cool, showery weather yielded to mild, mostly dry conditions by mid-week, allowing corn planting and other field operations to continue at a record early pace for this time of year. Spring dryness and warmth following wet fall and winter months have resulted in very favorable planting conditions. As of April 26, corn producers had planted 20% or more of their crop, 15 percentage points ahead of last year and 13 percentage points ahead of the 5-year average. Activity of most pest insects appeared reduced this week, due in part to cooler nighttime temperatures.

## LOOKING AHEAD

EUROPEAN CORN BORER: Larvae are pupating throughout the southern half of the state. Based on current degree day accumulations (base 50°F), the first moths of the spring flight could emerge as early as May 5 near Janesville and May 13 near Stevens Point. Larval abundance surveys performed last fall indicate an extremely low risk for severe infestations of first generation borers in May and June. Black light trappers concerned about this insect should have their traps in operation by next week.

BLACK CUTWORM: Migrants arrived this week in significant numbers. The first intense capture of 9 moths per trap was registered at Juneau in Dodge County from April 23-25, signaling the start of oviposition in fields with winter annual weeds. Larvae require 300 degree days (base 50°F) beyond an intense capture to grow large enough to damage corn seedlings.

ALFALFA WEEVIL: The first larvae of the 2010 growing season were collected from Dane County alfalfa on April 26. Surveys conducted in the south-central and west-central areas found very low numbers, 1-2 per 50 sweeps in 40% of fields checked. Alfalfa growers are advised to begin monitoring fields for small larvae and leaf tip feeding by May 7.

POTATO LEAFHOPPER: Adults are unevenly distributed over southern and central Wisconsin and have been encountered as far north as Waushara County. The high count for the week was 4 per 50 sweeps noted near Reedsburg in Sauk County.

# ALERTS

POTATO CULL PILES: Potato growers are reminded to dispose of all cull piles before May 20 using one or more of the options specified in ATCP 21.15 Wis. Adm. Code: 1) feed to livestock so that they are completely consumed; 2) spread on fields and incorporate into the soil; 3) deposit in a licensed landfill with the written permission of the landfill operator; 4) another method which DATCP approves in writing. The intent of the cull pile regulation is to prevent volunteer potato plants from serving as a source of late blight inoculum.

# FORAGES

ALFALFA WEEVIL: A few larvae are beginning to appear in alfalfa in the southern and central areas, but at this time counts are very low. Surveys in Columbia, Dane, Dodge, Juneau, La Crosse and Monroe counties yielded no more than 2 per 50 sweeps. Alfalfa fields, especially in the southern part of the state, should start showing evidence of this insect by May 7.

*Alfalfa weevil larvae* *Krista Hamilton DATCP*

WEEVILS: A variety of weevils of minor importance are fairly numerous in some alfalfa fields. The clover root curculio adult is most abundant in the south, often with counts of 6 or more per 50 sweeps. Adults of a similar species, the alfalfa curculio, were collected at the rate of 1-5 per 50 sweeps in Juneau, La Crosse and Monroe counties.

TARNISHED PLANT BUG: Adults are common but not abundant in field collections, with counts ranging from 4-12 per 50 sweeps. This insect is of primary concern to strawberry growers at this time of year due to its capacity to injure flower buds and developing seeds. Nymphs could not be found this week.

PEA APHID: Numbers in alfalfa remain low. Counts vary from 4-23 per 50 sweeps throughout the south, but average fewer than 7 per 50 sweeps. Reproduction has started.

# DEGREE DAYS JANUARY 1 - APRIL 29

| LOCATION | 50°F | 2009 | NORM | 48°F | 40°F |
|---|---|---|---|---|---|
| *Dubuque, IA* | 299 | 148 | — | 294 | 618 |
| *Lone Rock* | 289 | 139 | — | 268 | 589 |
| *Beloit* | 323 | 150 | — | 302 | 633 |
| *Madison* | 262 | 124 | 193 | 246 | 554 |
| *Sullivan* | 284 | 139 | 177 | 251 | 569 |
| *Juneau* | 250 | 119 | — | 224 | 528 |
| *Waukesha* | 223 | 122 | — | 199 | 488 |
| *Hartford* | 208 | 111 | — | 192 | 480 |
| *Racine* | 183 | 100 | — | 181 | 447 |
| *Milwaukee* | 175 | 96 | 139 | 170 | 436 |
| *Appleton* | 211 | 82 | 134 | 197 | 482 |
| *Green Bay* | 160 | 68 | 128 | 152 | 417 |
| *Big Flats* | 260 | 114 | — | 226 | 533 |
| *Hancock* | 256 | 105 | 184 | 224 | 526 |
| *Port Edwards* | 249 | 102 | 168 | 220 | 519 |
| *La Crosse* | 294 | 142 | 202 | 276 | 595 |
| *Eau Claire* | 265 | 131 | 159 | 245 | 554 |
| *Cumberland* | 238 | 122 | 143 | 206 | 505 |
| *Bayfield* | 145 | 46 | 85 | 118 | 365 |
| *Wausau* | 220 | 75 | 134 | 191 | 479 |
| *Medford* | 227 | 91 | 108 | 200 | 494 |
| *Crivitz* | 170 | 66 | — | 150 | 423 |
| *Crandon* | 194 | 60 | 110 | 158 | 436 |

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

# CORN

WESTERN BEAN CUTWORM: A comparison of moth counts from 2009 with the previous year's numbers shows a 51% increase. The total number of moths captured in the state doubled from 2,433 in 2008 to 4,928 in 2009. If trap counts are indicative, then Wisconsin corn growers can anticipate higher populations and potentially more significant larval infestations this season.

EUROPEAN CORN BORER: Degree day accumulations are appropriate for emergence of the first spring moths by May 5, unless the weather turns cold. This would be 17 days ahead of last year and unusually early for this pest. Black light trap counts listed on the final page of each bulletin issue should be followed over the next several weeks to monitor the progress of this insect.

European corn borer moth woodcreeper flickr.com

## SOYBEANS

BEAN LEAF BEETLE: Emergence of overwintered adults is probable in the week ahead. Normally the first beetles of the season are collected from first growth alfalfa by early to mid-May. Review of past issues of the Wisconsin Pest Bulletin shows this annual event has occurred from as early as May 1 in 2006 to as late as May 19 in 2009. The population and distribution survey for this insect has tentatively been set for the week of May 3.

## FRUITS

SPOTTED TENTIFORM LEAFMINER: Peak flights have been documented at several apple orchards in the past week. Trap counts are expected to decline in the southern areas as populations transition into the larval stages. The optimal sampling period for orchards that recently registered peak moth counts begins around May 10-14. Scouting regimens should include checking 10 terminals and fruit spurs per tree on 2-3 trees in each orchard block to determine the average number of sap-feeder leaf mines per leaf. A count of 1 mine per 10 leaves is high and indicates an elevated risk of economic injury by the second generation.

CODLING MOTH: The first sustained capture of male moths, or biofix, should occur next week in some southern and central orchards. The codling moth flight period begins in Wisconsin from 201-340 degree days (base 50°F). Reference to the 50°F column in the degree day table on Page 9 shows the lower range of this threshold has been surpassed in all areas of the state, with the exception of the far southeastern and northeastern counties.

SPOTTED WING DROSPOHILA: This new invasive fruit fly (*Drosophila suzukii*) was identified for the first time in the U.S. last year. Infestations have already accounted for 30% losses to cherries in portions of California, 80% losses to peaches in the Willamette Valley of Oregon, and 20% losses to raspberries in Oregon. Unlike similar fruit flies, the spotted wing drosophila attacks both healthy ripening fruit and damaged or rotting fruit. Potential hosts include blackberries, blueberries, cherries, grapes, kiwi, pears, raspberries, strawberries, tomatoes and many others. The outbreaks in California, Florida Oregon and Washington should be an indication to fruit growers, home gardeners and county agents to be alert for this new pest. Males are identifiable by a single spot on the tip of the forewing.

Spotted wing drosophila male and female www.growingproduce.com

PLUM CURCULIO: Adults have not moved into apple orchards in detectable numbers, but warmer temperatures projected for the weekend may activate their six-week migration period. Early blooming varieties such as 'Gala', 'McIntosh' or 'Paulared' should be examined for

evidence of feeding and oviposition in the first 14 days after petal fall.

CEDAR-APPLE RUST: Mature galls on juniper are sporulating in southern Wisconsin. Removal of the galls before the bright orange, gelatinous tendrils emerge is recommended to limit the spread of spores to the alternate hosts apple, flowering crabapple and hawthorn.

Cedar-apple rust on juniper www.sciencemusings.com

CRANBERRY REPORT: Plants are beginning to break dormancy. Development slowed in response to low nighttime temperatures of the past week and additional frost protection was required, but bud growth generally has been rapid this spring. The bloom period is projected to begin 7-10 days ahead of normal. Reports from growers indicate that newer hybrids appear to be slightly more advanced than standard cultivars in terms of bud movement. Minimal pest activity has been noted thus far.

## VEGETABLES

COMMON ASPARAGUS BEETLE: Egg deposition and hatch are underway in southern and central Wisconsin, as far north as Hancock in Waushara County. Although no reports of adults or feeding injury were received as of April 29, this insect is likely infesting some asparagus plantings.

IMPORTED CABBAGEWORM: These pale yellow cabbage butterflies were noted for the first time this season on April 11 in Dane and Richland counties. Adults have become more abundant in the past three weeks, and females are ovipositing on cruciferous weeds and early-planted cole crops. Routine scouting for eggs and new larvae during the oviposition period is advised. Infestation levels in cabbage should not exceed 30% at the transplant to cupping stages of growth, 20% at the cupping to early head stages, and 10% at the early head to harvest stages.

## WEEDS

WINTER ANNUALS & PERENNIALS: Several species of winter annual and perennial weeds, namely carpetweed, common chickweed, dandelion, field pennycress, shepherd's purse and yellow rocket, are flowering in alfalfa and no-till fields throughout the state. Fields with an abundance of these weeds provide ideal sites for egg deposition by female black cutworm moths.

## NURSERY & LANDSCAPE

HOSTA VIRUS X (HVX): Nursery inspectors continue to encounter hostas with mottled, crinkled, deformed or abnormally streaked leaves indicative of HVX. Since mid-April, the virus has been found on the cultivars 'Albomarginata', 'August Moon', 'Dream Weaver', 'Earth Angel', 'Krossa Regal', 'Paul's Glory', 'Sum and Substance' and 'Wide Brim' in Eau Claire, Kewaunee, Outagamie and St. Croix counties. Hostas expressing the symptoms listed should be returned to the supplier or destroyed.

Hosta showing symptoms of HVX Liz Meils DATCP

TOBACCO RATTLE VIRUS: Unlike the preceding virus which infects only hostas, tobacco rattle virus (TRV) can infect over 400 species of herbaceous and ornamental garden plants, vegetables and field crops. Symptoms

include light and dark green mottling of the leaves, stunting, leaf distortion, crinkling or curling, streaking and ringspots. Standard inspections in the past two weeks found TRV on astilbe 'Fanal', delphinium 'Magic Fountains', Oriental lily 'Angelique' and pink bleeding heart. Laboratory testing confirmed the initial diagnosis. The astible variety 'Fanal' was especially symptomatic, and was found to be infected with both TRV and cucumber mosaic virus (CMV). Removal and destruction of symptomatic nursery stock is recommended as there are no effective chemical controls for this virus.

CURRANT APHID: An infestation of these small yellowish aphids was reported on black currant in Dane County. The affected leaves showed moderate cupping, dwarfing and chlorosis. Under most circumstances, currant aphids are primarily an aesthetic problem and rarely become abundant enough to cause serious damage.

*Leaf cupping caused by currant aphids* *utahpests.usu.edu*

EASTERN TENT CATERPILLAR: Development has been rapid in the last three weeks and 3rd instar larvae are common in the southern and central areas. Although defoliation of roadside wild cherry, apple and crabapple trees is noticeable statewide, populations generally appear to be lower than in the previous year. Prompt removal of the tents is advised.

## FOREST

GYPSY MOTH: Annual Btk applications are scheduled to begin in southern Wisconsin on May 5, the earliest tentative start date in the last three years. Aerial treatments are planned for sites in Crawford, Iowa, Green and Rock counties next week.

BANDED ELM BARK BEETLE: New state and county records were recently established for this exotic invasive insect. The state record was documented at Lake Kegonsa State Park in Dane County where adults were collected last summer. Verification by a USDA Forest Pest identifier was made on December 19, 2009. It was also found in March at a residence near Brookfield in Waukesha County.

FOREST TENT CATERPILLAR: Surveys for egg masses in Iron, Oneida and Vilas counties were negative, according to the DNR Northern Region Forest Health Specialist. This finding suggests that large outbreaks of the cyclical forest pest are unlikely this year in northern Wisconsin.

PINE NEEDLE SCALE: Egg hatch occurred last week in Rock County. This event corresponds with first bloom of common lilac. Treatments should be applied once the reddish crawlers are active but before the white waxy coverings start to form on new needles.

## TRAPPING NETWORKS

BLACK LIGHT TRAPS: The low nightly temperatures of the last reporting period were apparently unfavorable for flights of nocturnal moths. No black cutworm or true armyworm adults appeared in the trap at Janesville and the only activity to speak of was the single celery looper registered on the night of April 27.

As noted previously, the first European corn borer moths of the spring flight could begin emerging as soon as May 5, so it is important for all persons who operate black light traps to install their traps by next week.

*Celery looper moth* *larsonmorgan/Moths*

# APPLE INSECT & BLACK LIGHT TRAP COUNTS APRIL 23 - 29

| COUNTY | DATE | SITE | STLM[1] | RBLR[2] | CM[3] | OBLR[4] | OBLR[5] | AM RED[6] | AM YELLOW[7] |
|---|---|---|---|---|---|---|---|---|---|
| Bayfield | 4/23-4/29 | Keystone | 0 | 3 | 0 | | | | |
| Bayfield | 4/23-4/29 | Bayfield | — | — | | | | | |
| Bayfield | 4/19-4/26 | Orienta | 3 | 0 | | | | | |
| Brown | 4/23-4/29 | Oneida | 700 | 27 | | | | | |
| Chippewa | 4/23-4/29 | Chippewa Falls 1 | 45 | 13 | | | | | |
| Chippewa | 4/23-4/29 | Chippewa Falls 2 | — | — | | | | | |
| Dane | 4/22-4/28 | Deerfield | 267 | 56 | | | | | |
| Dane | 4/23-4/29 | McFarland | 0 | 10 | 0 | | | | |
| Dane | 4/22-4/28 | Stoughton | 101 | 61 | | | | | |
| Dane | 4/23-4/29 | West Madison | 25 | 28 | 0 | | | | |
| Dodge | 4/23-4/29 | Brownsville | 32 | 9 | | | | | |
| Fond du Lac | 4/23-4/29 | Campbellsport | 28 | 12 | 0 | | | | |
| Fond du Lac | 4/23-4/29 | Malone | 250 | 8 | 0 | | | | |
| Fond du Lac | 4/21-4/29 | Rosendale | 163 | 96 | 0 | | | | |
| Grant | 4/23-4/29 | Sinsinawa | 6 | 0 | 0 | | | | |
| Green | 4/23-4/29 | Brodhead | 25 | 56 | | | | | |
| Iowa | 4/23-4/29 | Dodgeville | 800 | 41 | | | | | |
| Iowa | 4/23-4/29 | Mineral Point | 105 | 26 | | | | | |
| Jackson | 4/23-4/29 | Hixton | — | — | | | | | |
| Kenosha | 4/23-4/29 | Burlington | 125 | 20 | 0 | | | | |
| Marinette | 4/23-4/29 | Niagara | 24 | 21 | | | | | |
| Marquette | 4/19-4/26 | Montello | 378 | 4 | | | | | |
| Ozaukee | 4/22-4/29 | Mequon | 100 | 13 | 0 | | | | |
| Pierce | 4/23-4/29 | Beldenville | 120 | 150 | 0 | | | | |
| Pierce | 4/23-4/29 | Spring Valley | 196 | 186 | | | | | |
| Racine | 4/23-4/29 | Raymond | — | — | | | | | |
| Racine | 4/22-4/29 | Rochester | 670 | 31 | | | | | |
| Richland | 4/20-4/27 | Hillpoint | 500 | 121 | | | | | |
| Sheboygan | 4/23-4/29 | Plymouth | 135 | 35 | | | | | |
| Walworth | 4/23-4/29 | East Troy | — | — | | | | | |
| Walworth | 4/23-4/29 | Elkhorn | — | — | | | | | |
| Waukesha | 4/23-4/29 | New Berlin | — | — | | | | | |

[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 | 4/15-4/22 | Chipp Falls | | | | | | | | | | |
| Columbia | 4/15-4/22 | Arlington | | | | | | | | | | |
| Dane | 4/15-4/22 | Mazomanie | | | | | | | | | | |
| Grant | 4/15-4/22 | Lancaster | | | | | | | | | | |
| Manitowoc | 4/15-4/22 | Manitowoc | | | | | | | | | | |
| Marathon | 4/15-4/22 | Wausau | | | | | | | | | | |
| Monroe | 4/15-4/22 | Sparta | | | | | | | | | | |
| Rock | 4/15-4/22 | Janesville | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Walworth | 4/15-4/22 | East Troy | | | | | | | | | | |
| Wood | 4/15-4/22 | Marshfield | | | | | | | | | | |

[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.