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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
2811 Agriculture Dr. Madison, WI 53718 • http://pestbulletin.wisconsin.gov

## WEATHER & PESTS

Another week of hot and humid conditions, with daytime highs reaching the lower 90s, advanced crop development across the state. Mostly dry, sunny weather dominated, except for a few locally heavy rain showers that occurred early in the week. The mid-July heat spurred a more rapid rate of growth for late-planted crops and favored fieldwork, including alfalfa harvesting, insect and weed control, and fertilizer applications. Corn, soybeans and small grains responded well to the hot conditions, though as of July 15 only 1% of the state's corn acreage had reached the silking stage, 29 percentage points behind last year and 10 points behind the 5-year average. Monarch, red admiral, and painted lady butterfly activity has also increased with the summer heat, and this season's abundant rain has produced a lush growth in forests, prairies, and wildflowers favorable to these species. Insect pests such as the potato leafhopper also capitalized on the hot weather, with high populations observed by DATCP in alfalfa and other crops.

## LOOKING AHEAD

JAPANESE BEETLE: Numbers are increasing in fruit and field crops over much of the state. This beetle is likely to become a serious problem again this season since adequate to surplus soil moisture levels have generally been favorable for the subterranean larvae. Damage to fruit trees, ornamentals and field crops will continue to intensify this month. Targeted spot treatment of individual trees or problem areas is usually an effective alternative to broadcast applications.

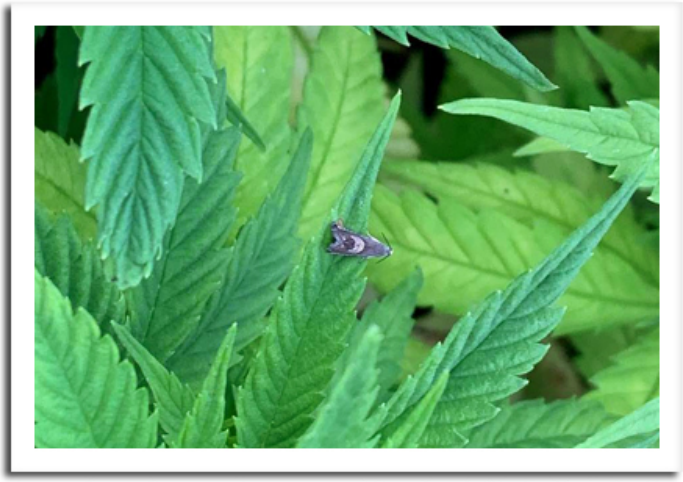
SPOTTED WING DROSOPHILA: Fly emergence is accelerating. Egg laying has intensified with the recent hot weather and the small white SWD larvae have become noticeable in fruits. Berry growers are advised to increase sampling for larvae to determine fruit marketability and whether management actions are working. Larval sampling methods are provided in the FRUIT section.

APPLE MAGGOT: Counts of 1-4 adult flies per trap were reported in the past week from seven of 25 apple orchard locations. Fly emergence is expected to escalate throughout July and peak in August. Apple growers concerned about this pest should set a minimum of three traps per 10 acres at this time, increasing the density to one trap every 200-300 feet along the orchard perimeter as the season progresses. The traps should be hung at eye-level near wild hosts and early-ripening cultivars.

EUROPEAN CORN BORER: Summer moths are appearing in the Columbia, Dodge, and Fond du Lac County black light traps. The predominant stages noted in fields this week were fourth and fifth-instar larvae, as well as pupae. Surveys in corn suggest that infestations are generally

very light, with fewer than 4% plants infested with first-generation larvae.

EURASIAN HEMP BORER: The second flight of moths began on July 18 in Walworth County. Moths of this flight will produce second-generation larvae capable of causing additional damage to greenhouse and field hemp plants. Some industrial hemp growers are already reporting moderate to heavy stem boring injury to their crops resulting from the first generation. Scouting for EHB stem holes to determine the need for control should occur soon. Any treatments targeting the second generation larvae must be applied during the narrow window between egg hatch and before the caterpillars bore into hemp stems.



*Eurasian hemp borer moth* *Steve Tomlins Turtle Creek Gardens*

WESTERN BEAN CUTWORM: The annual moth flight is beginning, with 25% emergence forecast for next week throughout most of southern Wisconsin. Routine scouting of corn plants for egg masses and small larvae should start once fields enter the late-whorl and pre-tassel stages. If control is warranted, the optimal timing for insecticide treatment is at 90-95% tassel emergence.

## FORAGES & GRAINS

PLANT BUG: Counts of this pest in alfalfa remain unusually low for mid-July. Surveys conducted in the west-central area found 0-0.4 plant bugs per sweep (average 0.01 per sweep), which is very low in comparison to the economic threshold of five per sweep in alfalfa.

POTATO LEAFHOPPER: Counts in 56% of the fields surveyed this week were above the economic threshold of 2.0 leafhoppers per sweep for alfalfa 12 inches and taller. A few sites had very high averages of 5-6 leafhoppers per sweep, and moderate to severe hopperburn has become evident in fields with significant populations. The average across all sites sampled was 2.3 per sweep. Potato leafhopper pressure is also reportedly high in fruit and vegetable crops.

PEA APHID: Levels of this insect decreased in late June and are now very low. All alfalfa sampled in Buffalo, Chippewa, Eau Claire, Jackson and Trempealeau counties had counts below one aphid per sweep. Pea aphid counts usually decrease abruptly by mid-summer. The July 11-17 average of only 0.5 per sweep was unchanged from the previous week.

## DEGREE DAYS JANUARY 1 - JULY 17

| LOCATION | 50°F | 2018 | NORM | 40°F |
|---|---|---|---|---|
| *Dubuque, IA* | 1540 | 1789 | 1490 | 2517 |
| *Lone Rock* | 1397 | 1593 | — | 2323 |
| *Beloit* | 1424 | 1559 | 1508 | 2356 |
| *Sullivan* | 1294 | 1453 | 1415 | 2177 |
| *Madison* | 1392 | 1553 | 1438 | 2327 |
| *Juneau* | 1233 | 1483 | — | 2097 |
| *Racine* | 1144 | 1332 | — | 2009 |
| *Waukesha* | 1253 | 1382 | — | 2134 |
| *Milwaukee* | 1183 | 1383 | 1307 | 2056 |
| *Hartford* | 1211 | 1427 | — | 2071 |
| *Appleton* | 1185 | 1489 | — | 2031 |
| *Green Bay* | 1148 | 1444 | 1259 | 1987 |
| *Big Flats* | 1207 | 1506 | — | 2075 |
| *Hancock* | 1153 | 1394 | 1395 | 1998 |
| *Port Edwards* | 1153 | 1413 | 1362 | 1989 |
| *La Crosse* | 1342 | 1682 | 1575 | 2268 |
| *Eau Claire* | 1271 | 1592 | 1411 | 2139 |
| *Cumberland* | 1077 | 1316 | 1305 | 1847 |
| *Bayfield* | 892 | 1144 | — | 1603 |
| *Wausau* | 1006 | 1289 | 1274 | 1764 |
| *Medford* | 993 | 1254 | 1161 | 1742 |
| *Crivitz* | 1076 | 1341 | — | 1861 |
| *Crandon* | 990 | 1219 | 1000 | 1720 |

*Method: Modified B50; Modified B40 as of January 1, 2019. NORMALS based on 30-year average daily temps, 1981-2010.*

## INDUSTRIAL HEMP

REDHEADED FLEA BEETLE: This flea beetle was observed on hemp this week in southeastern Wisconsin. Although

the RHFB is not considered major threat to crops, locally high populations occasionally develop and may warrant control in rare situations. Hemp growers are advised to watch for an increase in beetle activity. Flea beetles typically hatch in July and August and feed on plants until September.

*Red headed flea beetle* *NC State Extension*

EURASIAN HEMP BORER: A report from Walworth County in southeastern Wisconsin notes that the second flight of moths began on July 18, although most EHB are currently in the pupal stage. In Polk County in the northwestern region, larvae are still in the late instars and will pupate in the next few days.

*Eurasian hemp borer stem boring damage* *Konnie Jerabek DATCP*

Industrial hemp growers who have observed EHB holes in plant stems are advised to scout their crops now to determine the approximate percentage of infested plants. If levels are high enough to warrant control, treatment of second-generation EHB larvae must target the newly hatched caterpillars before they bore into hemp stems. This narrow treatment window lasts only a few days and can only be determined by watching for the next emergence of EHB moths, which fly at dawn and dusk, and closely inspecting plants for the tiny larvae. Products available for hemp pest control in Wisconsin are listed here: https://datcp.wi.gov/Documents/IHPesticides.pdf

## CORN

JAPANESE BEETLE: The annual emergence is well underway. Beetles are common at low levels in corn, soybeans, and fruit crops, and perimeter damage can be expected this month. For corn, the primary concern is to protect the silks from clipping since heavy beetle feeding on corn silks can impair pollination. Treatment may be justified for fields with three or more beetles per ear and silks that have been clipped to ½ inch when pollination is occurring (less than 50% complete). Japanese beetles collect on plants in the edge rows, emphasizing the importance of obtaining a representative sample from several areas throughout the field before making control decisions. Border row spot treatments may be sufficient if the beetles and damage are confined to the field edges. Beetles must be on the outside of the ear to be killed by contact insecticides.

*Japanese beetles feeding on corn silks* *Krista Hamilton DATCP*

WESTERN BEAN CUTWORM: Emergence continued for the third week, with moths reported as far north as Durand in Pepin County. The DATCP network of 54 pheromone traps captured 51 moths, for a cumulative total of 55 moths since the flight began around July 1. Twenty-five percent adult emergence should occur over the southern half of the state in the week ahead. Oviposition on corn and dry beans is expected to increase as the moth flight

escalates. In fields where egg masses and small larvae are found on 5% or more of the corn plants, an insecticide treatment applied at 90-95% tassel emergence will be most effective. This application timing increases the chance that the caterpillars will be exposed to the material. Routine scouting should continue throughout the month.

Western bean cutworm eggs Jocelyn Smith University of Guelph

CORN ROOTWORM: Beetles are emerging in southern Wisconsin. Both the northern and western species were observed by DATCP survey specialists this week. A report indicates that lodging due to larval rootworm feeding has become apparent in VT corn in northern Lafayette County following storms on the night of July 16.

EUROPEAN CORN BORER: DATCP is looking for cooperating corn growers to assist with its historic European corn borer fall abundance survey. To ensure that the survey results reflect the effects of non-Bt acres, for 2019 we would like to include at least one field of conventional corn from each county. Corn growers who will allow us to sample one of their conventional and Bt corn fields this fall are asked to email Krista Hamilton at krista.hamilton@wisconsin.gov. Please provide your name, phone number, and field location (GPS coordinates or other description of the field). Growers will be informed if their field has a high ECB population, but individual field locations and farmer information will not otherwise be shared.

CORN EARWORM: Pheromone traps in Columbia, Dodge, Fond du Lac and Vernon counties registered counts of 1-12 migrants, and a weekly total of 22 moths in five traps. Three other monitoring sites reported zero moths this week. The economic threshold for this pest is 5-10 moths in three consecutive nights for corn, and seven per trap per week for tomatoes. Moth numbers from July 11-17 were as follows: Arlington 12, Beaver Dam 2, Coon Valley 3, Janesville 0, Marshfield 0, Pardeeville 2, Ripon 3, and Wausau 0.

## SOYBEANS

GREEN CLOVERWORM: Larvae are appearing in southern Wisconsin soybeans. Numbers are still low and defoliation is light (<5% fieldwide), but outbreaks of this caterpillar occur every 5-6 years and conditions are favorable for damaging populations to develop this season.

Green cloverworm Krista Hamilton DATCP

JAPANESE BEETLE: Soybean fields in the west-central part of the state were showing 1-15% of plants with light leaf injury caused by a combination of Japanese beetles, bean leaf beetles, grasshoppers, green cloverworms, leafrollers, and thistle caterpillars. Japanese beetle is currently the most prevalent soybean pest.

The recommended sampling method for defoliators is to select 10 plants throughout the field, choosing a trifoliate from the upper, middle and lower canopy on each plant, for a 30-leaf sample. Compare the 30 leaflets with an online defoliation estimating guide to determine the average percent defoliation, and if feeding is progressing through the canopy. Defoliation that meets the 20% threshold between the bloom and pod-fill stages and 30% in the pre-bloom soybean warrants control.

Scouting several areas in the field interior, in addition to field edges where beetles are most numerous, is required for an accurate assessment. Spot treatment

may be considered for border areas. Recall that soybeans can tolerate considerable defoliation without yield loss and defoliation is commonly overestimated.

SOYBEAN APHID: Surveys continue to find very low densities in soybean fields. Aphids were observed in only one of the 21 soybean fields sampled from July 11-17, and just two of the 100 plants were infested with a total of 18 aphids. However, as densities increase toward the end of the month, growers and crop advisors are reminded that insecticide treatment should not be considered until the economic threshold of 250 aphids per plant on 80% of the plants has been exceeded. Aphid counts have not begun to approach this level in any soybean field surveyed by DATCP as of July 18.

# FRUITS

APPLE MAGGOT: Captures on red spheres and yellow sticky traps have increased, with reports of flies appearing on traps at seven of 25 cooperating locations from Walworth to Pierce County. The highest count for the week was four flies on a yellow sticky board at Sinsinawa in Grant County. Maintaining traps will be important as emergence continues and oviposition on apples intensifies in late July and early August.

*Apple maggot fly* *Hannes Schuler news.rice.edu*

SPOTTED WING DROSOPHILA: Berry growers in southern and western Wisconsin have reported finding initial larval infestations in their blackberries and raspberries in the past two weeks, indicating sampling for larvae in fruit should begin. To sample from a planting, place at least 15 ripe fruit in a plastic bag and lightly squeeze each fruit. Add a strong salt solution (1/4 cup salt to 1 quart water), enough to cover all of the fruit, to the bag. If present, small white SWD larvae will emerge and rise to the top of the liquid after 30 minutes. A more complete guide to the sampling process is available at http://www.canr.msu.edu/ipm/uploads/files/SWD/SWD_2013-Salt_Sugar_Boil_Test-6-20-2013.pdf. Managing SWD requires persistence and the use of as many control techniques as possible.

JAPANESE BEETLE: Beetles are appearing in Wisconsin apple orchards and vineyards. Damage to fruits, ornamentals and field crops is expected to intensify later this month and control may be needed to prevent fruit loss. Most chemical treatments are only effective against Japanese beetle when populations are low and the beetles are first immigrating into vineyards and orchards. Spot treating blocks or perimeter areas with the highest beetle pressure is the recommended control.

*Japanese beetles* *www.planetnatural.com*

CODLING MOTH: Several apple orchards are 1,000 or more degree days (modified base 50°F) beyond the first biofix, and treatments for second generation larvae are starting. Apple growers are reminded to rotate insecticides between generations to prevent resistance to chemical materials. Localized larvicide applications are usually an acceptable alternative to orchard-wide treatment for sites with variable larval pressure between cultivars or blocks.

SPOTTED TENTIFORM LEAFMINER: The second flight should peak soon at most monitoring sites. Several orchards reported counts above 500 moths per trap in the past week, with a high of 2,134 moths per trap registered in Marathon County. Heavy egg laying can be expected as long as pheromone traps are attracting high numbers of moths. Apple orchards with populations greater than

one mine per leaf or a history of infestation should consider controlling second-generation larvae to reduce build-up of leafminers before the third flight begins in late July or August.

# VEGETABLES

LATE BLIGHT: Development of this disease was confirmed by the UW in a Wood County potato field on July 17. UW-Extension Vegetable Plant Pathologist Dr. Amanda Gevens is advising potato and tomato growers in the Wood County area to maintain routine preventative fungicide applications on a 5 to 7-day schedule to protect their crops. Registered fungicides for potato late blight in Wisconsin are provided in the following link: https://wivegdis.plantpath.wisc.edu/wpcontent/uploads/sites/210/2019/06/2019-Potato-Late-Blight-Fungicides.pdf

*Potato late blight leaf lesion* *omafra.gov.on.ca*

POTATO LEAFHOPPER: Populations in alfalfa and on some vegetable crops remain very high. Reports indicate that counts are well above-threshold in a few western Wisconsin snap bean plantings. Established economic thresholds are one per sweep or one nymph per 10 leaves in snap beans and three leafhoppers per sweep in potatoes when nymphs are present.

STRIPED CUCUMBER BEETLE: These yellow beetles with black stripes are very common this season. Surveys in community gardens and CSAs in the past week found beetles at nearly all sites, with economic populations noted in Dane and La Crosse counties. Vegetable growers should continue to monitor cucurbits for beetles and signs of bacterial wilt. Control is warranted for populations of one beetle per plant in melons, cucumbers and young pumpkins, and five beetles per plant for less-susceptible cucurbits such as watermelon and squash.

*Striped cucumber beetle* *Krista Hamilton DATCP*

SQUASH BUG: Low numbers of adults and egg clusters were observed at several vegetable sites sampled from July 11-17. The highest count recorded was seven egg masses per 20 plants. The treatment threshold for squash bugs is based on an average count of one egg mass per plant, although scouting for tiny eggs is impractical in larger plantings. If the insects are numerous and wilting is observed, chemical control may be considered.

*Squash bug eggs and nymphs* *Krista Hamilton DATCP*

For gardens, hand picking and destroying the bugs and the eggs is most effective. Another option is to place cardboard or newspaper on the ground next to the plants. At night, the squash bugs will gather beneath the cardboard and can be destroyed in the morning. Organic growers may use pyrethrum (PyGanic) or the pre-mix with azadirachtin (Azera) directed against the nymphs. Refer to

UWEX publication A3422 "Commercial Vegetable Production in Wisconsin" for a list of registered insecticides.

CORN EARWORM: Twenty-two specimens were captured at five pheromone trap sites in Columbia, Dodge, Fond du Lac and Vernon counties during the reporting period ending July 17. The highest individual count was 12 moths at Arlington in Columbia County. The primary migration of moths from the southern U.S. could begin by late July or early August. Participants in the corn earworm trapping network should begin replacing lures on a weekly basis.

CABBAGE LOOPER: Green to brown frass pellets from the larvae of this pest were observed on cauliflower heads in a La Crosse County CSA garden this week. The larvae were in the intermediate stages. The appearance of the cabbage looper caterpillars suggests that a migration occurred earlier this month, and that increased scouting should begin now and continue through early September. A 10% infestation threshold is suggested from early heading until harvest to protect the market quality of cabbage. The same threshold applies to broccoli and cauliflower once flowers or curds begin to develop.

*Cauliflower infested with cabbage looper larvae* *Krista Hamilton DATCP*

## NURSERY & FOREST

IMPATIENS NECROTIC SPOT VIRUS: This virus was diagnosed in 'Issai' hardy kiwi vine plants in Sawyer County last week. INSV is known to infect several hundred plant species, including agricultural and vegetable crops like romaine lettuce and tomato, as well as ornamentals such as begonia and fuchsia. As with all known plant viruses, there is no cure. Preventing spread is critical once the virus has been detected. Destroying infected plants and controlling thrips and other potential insect vectors are common control techniques.

*Impatiens necrotic spot virus on hardy kiwi* *Timothy Allen DATCP*

WHITE PINE WEEVIL: Damage to the base of terminal leaders of developing white and Scots pine was recently noted by inspectors in Jackson County growing fields. Caused by nearly full-grown white pine weevil larvae, typical symptoms include curled, browned, and wilting young leaders above the primary whorl, often with fresh pitch flow at the feeding site. The excess pitch production is the tree's natural defense against wood boring insects.

*White pine weevil larva* *Konnie Jerabek DATCP*

The white pine weevil is known to attack at least 20 different tree species including Norway, blue and black spruce, as well as Mugo, Scots and jack pine, with Eastern white pine being the most suitable host for brood development. Although weevil damage rarely results in tree mortality, repeated seasons of infestation can lead to

growth reduction, stem deformation, and increased susceptibility to wood decay organisms.

Cultural control by pruning out terminals infested with larvae may reduce weevil populations and reform the tree, but the effective window of pruning is brief and restricted to the late spring/early summer from when the terminals begin wilting until the insects emerge through exit holes. The pruned area should be limited only to the infested part of the terminal, which often may not extend to the next set of branches. Any pruned material must be disposed of off-site since larvae can continue to develop in cuttings.

The primary injury of white pine weevil deforms the growth of the tree, as the co-dominant healthy side branches attempt to grow and form multiple new leaders. This trend can be reduced by forcing a single dominant primary leader and suppressing the others, allowing the tree to ultimately restore nearly normal form. One method is to select the most vigorous side leader as the new primary and to pinch down the terminal buds of the other side shoots to reinforce the growth pattern.

White pine weevil leader damage Konnie Jerabek DATCP

FALL WEBWORM: The characteristic nests constructed by fall webworm larvae are appearing in southern Wisconsin. This native species feeds on over 120 different species of deciduous forest, shade, fruit, and ornamental trees, but avoids conifers. Nests or webs appear in trees later in the season than nests made by other web- and tent-making species found in Wisconsin.

The larvae inside the nests are pale yellow with blackish lateral spots. Mature caterpillars develop tufts of silky hairs and are about one-inch long. Products containing Bt are effective against young caterpillars if the material penetrates the webbing, but manual removal or disruption of the webs is the preferred form of control. Pruning infested branches is not warranted, however, and causes unnecessary harm to the host plants.

Fall webworm nest lawnamerica.com

VINYL TREE GUARDS: Certain brands of vinyl tree guards intended to protect young trees from rabbits, rodents and mechanical injury do not expand as the tree grows and can constrict and girdle the trees if not adjusted seasonally. Trees with severe constriction are often found with dead vascular tissue in the trunk, which can lead to infection by a range of diseases that cause tree decline. It is recommended that homeowners, landscapers, and nurseries who use tree guards remove them at least twice a year to inspect the tree trunk for problems and to determine if the guards need to be adjusted.

# APPLE INSECT & BLACK LIGHT TRAP COUNTS JULY 11 - 17

| COUNTY | SITE | STLM[1] | RBLR[2] | CM[3] | OBLR[4] | DWB[5] | LPTB[6] | BMSB[7] | AM RED[8] | YELLOW[9] |
|---|---|---|---|---|---|---|---|---|---|---|
| Bayfield | Keystone | 37 | 3 | 3 | 6 | 0 | 13 | 0 | — | — |
| Bayfield | Orienta | 8 | 0 | 0 | 13 | 18 | 20 | — | — | — |
| Brown | Oneida | 925 | 31 | 9 | 5 | 58 | 3 | 0 | 0 | 0 |
| Columbia | Rio | — | — | — | — | — | — | — | — | — |
| Crawford | Gays Mills | — | — | — | — | — | — | — | — | — |
| Dane | DeForest | — | — | — | — | — | — | — | — | — |
| Dane | Mt. Horeb | 123 | 118 | 1 | 0 | 4 | 1 | 0 | 0 | 0 |
| Dane | Stoughton | 54 | 192 | 13 | 8 | 8 | 36 | — | — | — |
| Fond du Lac | Campbellsport | 200 | 26 | 0 | 0 | 19 | 0 | 0 | — | — |
| Fond du Lac | Malone | 65 | 45 | 7 | 32 | 32 | 5 | 0 | **1 | 0 |
| Fond du Lac | Rosendale | 43 | 14 | 3 | 2 | 16 | 5 | 0 | 0 | 0 |
| Grant | Sinsinawa | 62 | 7 | 2 | — | — | — | — | — | *4 |
| Green | Brodhead | 6 | 15 | 0 | 5 | 25 | 2 | — | 0 | 0 |
| Iowa | Mineral Point | 335 | 169 | 0 | 11 | 16 | 0 | 0 | *0 | *1 |
| Jackson | Hixton | 27 | 20 | 2 | 0 | 13 | 17 | 0 | 0 | 0 |
| Kenosha | Burlington | 90 | 39 | 3 | 7 | 72 | 3 | 0 | 0 | — |
| Marathon | Edgar | 2134 | 14 | 5 | 3 | 70 | 4 | 0 | 0 | 0 |
| Marinette | Niagara | 56 | 0 | 0 MD | 8 | 29 | 11 | 0 | 0 | 0 |
| Marquette | Montello | 891 | 99 | 0 | 1 | 41 | 1 | 0 | 0 | 0 |
| Ozaukee | Mequon | 75 | 10 | 6 | 2 | 4 | 0 | 0 | 0 | 0 |
| Pierce | Beldenville | 12 | 76 | 15 | 0 | 8 | 2 | 0 | *1 | *1 |
| Pierce | Spring Valley | 343 | 34 | 0MD | 3 | 58 | 32 | 0 | *1 | 3 |
| Racine | Raymond | 261 | 47 | 8 | 29 | 19 | 10 | 0 | 0 | 0 |
| Racine | Rochester | 434 | 62 | 9 | 42 | 23 | 0 | 0 | *0 | 0 |
| Richland | Hill Point | 290 | 114 | 1 | 1 | 3 | 21 | 0 | 0 | **0 |
| Sheboygan | Plymouth | 1105 | 0 | 0 MD | 0 | 53 | 15 | 0 | **3 | 0 |
| Walworth | East Troy | 21 | 20 | 0 MD | 12 | 15 | 17 | 0 | 0 | 0 |
| Walworth | Elkhorn | 66 | 19 | 0 MD | 14 | 5 | 5 | 0 | 1 | 0 |
| Waukesha | New Berlin | — | — | — | — | — | — | — | — | — |

[1]Spotted tentiform leafminer; [2]Redbanded leafroller; [3]Codling moth; [4]Obliquebanded leafroller; [5]Lesser peachtree borer; [6]Dogwood borer; [7]Brown marmorated stink bug; [8]Apple maggot red ball; *Unbaited; **Baited; [9]Apple maggot yellow board; [MD]Mating disruption.

| COUNTY | SITE | BCW[1] | CEL[2] | CE[3] | DCW[4] | ECB[5] | FORL[6] | SCW[7] | TA[8] | VCW[9] | WBC[10] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Columbia | Arlington | 0 | 2 | 0 | 0 | 2 | 1 | 0 | 5 | 0 | 0 |
| Columbia | Pardeeville | 1 | 4 | 1 | 9 | 46 | 14 | 0 | 13 | 0 | 0 |
| Dodge | Beaver Dam | 0 | 0 | 0 | 2 | 3 | 0 | 6 | 3 | 0 | 0 |
| Fond du Lac | Ripon | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 1 | 1 | 1 |
| Grant | Prairie du Chien | — | — | — | — | — | — | — | — | — | — |
| Manitowoc | Manitowoc | — | — | — | — | — | — | — | — | — | — |
| Marathon | Wausau | 0 | 0 | 0 | 4 | 0 | 1 | 18 | 3 | 0 | 0 |
| Monroe | Sparta | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 |
| Rock | Janesville | 3 | 17 | 1 | 0 | 0 | 11 | 0 | 40 | 18 | 0 |
| Walworth | East Troy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wood | Marshfield | 0 | 1 | 0 | 1 | 0 | 1 | 7 | 0 | 0 | 1 |

[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.