

# 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

Mostly sunny skies and mild temperatures favored spring planting during the final week of April. The return of warm weather promoted a rapid pace of fieldwork, though dry air in the region brought considerable day-night temperature variation, with highs in the 60s and 70s and lows in the 30s and lower 40s. Lake breezes kept daytime highs in the 50s along the Great Lakes shorelines. Full-scale fieldwork resumed across most of the state, as the planting of oats and potatoes advanced well ahead of last year's pace and the five-year average. Alfalfa and winter wheat growth accelerated under sunny skies. Corn planting began in full in areas where soil temperatures were suitable for seed germination, and reports indicate that significant seedling progress was made during the week. Dryness remains a concern in western Wisconsin and more rain will be needed state-wide to support germination and early crop development.

## LOOKING AHEAD

**BLACK CUTWORM:** Migrants were collected in very low numbers for the fifth consecutive week. The high count from April 23-29 was just eight moths at Janesville, and only one other trap captured moths. Based on degree day accumulations (modified base 50°F) since the April 1

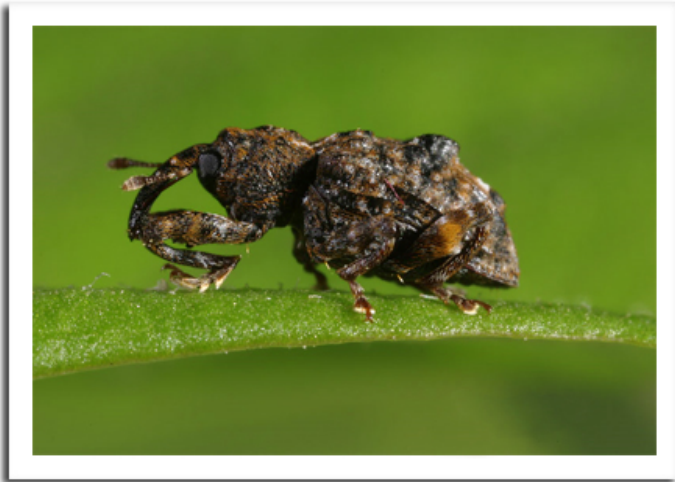
arrival of the earliest black cutworm migrants, approximately 183 degree days, or about 23 calendar days, remain before larvae in south-central Wisconsin reach the plant-cutting fourth instar stage. A more precise projection of peak corn cutting dates will be determined once the first significant flight of nine or more moths in two nights is documented.

**ALFALFA WEEVIL:** Larvae are expected to emerge in advanced fields in the week ahead. Regular scouting is advised beginning at 300 degree days (sine base 48°F), or by May 8 in the southern counties and May 14 in the central counties.

**GYPSY MOTH:** Egg hatch was observed on April 24 in Rock County. This event occurred by April 30 last year, May 6 in 2013, and April 3 in 2012. Aerial spraying directed against first and second-instar larvae is tentatively scheduled to start in southern Wisconsin late in the week beginning May 3 or early in the week beginning May 10.

**EUROPEAN CORN BORER:** Pupation is forecast to begin by May 2 in the south-central and southwestern counties. Results of the 2014 fall population survey suggest the overwintered generation of larvae remains historically low and will likely produce an extremely small flight of moths next month. Black light traps should be installed by May 14 in anticipation of the spring flight.

**PLUM CURCULIO:** Migration from hibernation sites into apple orchards could begin at advanced southern sites next week. A mean daily temperature of 55-60°F for three to four days induces the spring emergence and dispersal of this fruit pest.



Plum curculio

Joyce Gross calphotos.berkeley.edu

## FORAGES & GRAINS

**ALFALFA WEEVIL:** Adults remain scarce in alfalfa fields. Only two weevils were swept from the 41 sites sampled during the reporting period of April 23-29. Weevil counts, and egg deposition in alfalfa stems, are expected to increase next week. Larvae should begin appearing in sweep net collections by May 8.

**POTATO LEAFHOPPER:** Migrants were collected in very low numbers on April 27 and 28 from three alfalfa fields, two in Dane County and one in Grant County. Their appearance suggests a small migration into southern Wisconsin has occurred.

**PEA APHID:** Alfalfa surveyed in Crawford, Dane, Grant, Green, La Crosse, Monroe and Vernon counties contained low counts of 0-24 aphids per 100 sweeps. Egg hatch was observed on April 17 in Grant and Richland counties, but was not noted until April 27 in La Crosse and Monroe counties.

**TARNISHED PLANT BUG:** Adults can be found in most alfalfa fields in the south-central and southwest areas of the state. The average count in the last week was three per 100 sweeps.

## DEGREE DAYS JANUARY 1 - APRIL 29

| LOCATION     | 50°F | 2014 | NORM | 48°F | 40°F |
|--------------|------|------|------|------|------|
| Dubuque, IA  | 238  | 139  | 211  | 212  | 379  |
| Lone Rock    | 216  | 110  | —    | 189  | 332  |
| Beloit       | 226  | 153  | 216  | 198  | 364  |
| Sullivan     | 136  | 73   | 182  | 111  | 219  |
| Madison      | 203  | 102  | 200  | 174  | 308  |
| Juneau       | 160  | 71   | —    | 137  | 251  |
| Racine       | 106  | 69   | —    | 91   | 203  |
| Waukesha     | 136  | 73   | —    | 111  | 219  |
| Milwaukee    | 107  | 65   | 157  | 90   | 196  |
| Hartford     | 136  | 73   | —    | 111  | 219  |
| Appleton     | 138  | 46   | —    | 115  | 226  |
| Green Bay    | 102  | 37   | 141  | 93   | 191  |
| Big Flats    | 192  | 78   | —    | 156  | 247  |
| Hancock      | 192  | 78   | 187  | 156  | 247  |
| Port Edwards | 182  | 66   | 183  | 147  | 251  |
| La Crosse    | 228  | 103  | 221  | 204  | 363  |
| Eau Claire   | 188  | 68   | 184  | 165  | 295  |
| Cumberland   | 158  | 40   | 146  | 129  | 229  |
| Bayfield     | 106  | 13   | —    | 84   | 146  |
| Wausau       | 137  | 36   | 148  | 113  | 197  |
| Medford      | 132  | 29   | 124  | 108  | 192  |
| Crivitz      | 88   | 32   | —    | 70   | 142  |
| Crandon      | 103  | 22   | 113  | 79   | 133  |

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

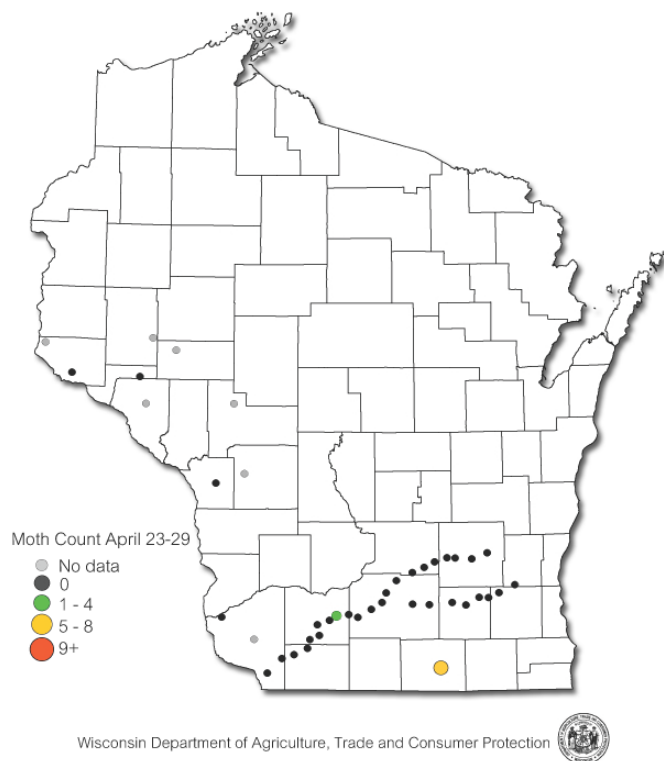
## CORN

**EUROPEAN CORN BORER:** According to the results of last fall's survey, the overwintered generation of larvae should produce an extremely small flight of moths next month. The annual European corn borer survey documented a statewide average of only 0.03 borer per plant or three per 100 plants, tying 2012 for the lowest fall population in the last 73 years. Pupation is likely to begin by May 2 in the Janesville and Spring Green areas of southern Wisconsin.

**BLACK CUTWORM:** The annual black cutworm migration has to date yielded only 42 moths in 42 traps, with a cumulative high count of 18 moths reported from Janesville in Rock County. The moths originated in the south-central U.S. and were carried into the state on storm fronts beginning April 1. Based on the very low number of moths arriving this month, the risk of cutworm damage to emerging corn appears low for now. This

forecast could change with an influx of moths in early May. The map below summarizes moth counts for the period of April 23-29.

### Black Cutworm Counts Spring 2015



Spotted tentiform leafminer

Peter Buchner [www.lepiforum.de](http://www.lepiforum.de)

## SOYBEANS

**SOYBEAN APHID:** Emergence of aphids from overwintered eggs on buckthorn is likely under way. According to a report from Mike Sandstrom of [insectforecast.com](http://insectforecast.com), freezing temperatures last week may have killed off many of the recently-hatched aphids, potentially leading to initially low aphid populations again this spring. A similar event occurred in 2014 when soybean aphid egg hatch was followed by a killing freeze. Entomologists David Hogg and David Voegtlin are planning a May 11-17 survey of known aphid overwintering locations in Illinois, Indiana and Ohio, the results of which should determine the status of spring aphid colonies on buckthorn.

## FRUITS

**SPOTTED TENTIFORM LEAFMINER:** Peak emergence of spring moths is approaching across much of the state.

The apple orchards near Hill Point in Richland County and Edgar in Marathon County reported high counts of 500-897 moths per trap from April 23-29. Elsewhere counts were much lower and ranged from 1-208 per trap. The number of moths captured during the event defined as a “peak flight” varies by orchard but is generally in the range of 800-1,200 per trap per week.

**REDBANDED LEAFROLLER:** The spring flight has accelerated at most trap sites and egg deposition is well under way. Small larvae should begin emerging next week. A recommended sampling method for this insect is to start monitoring for early-instar larvae on foliage and watersprouts 10-12 days after the first moth is registered. Late-instar larvae and pupae can be found by searching for folded leaves. An important distinguishing feature of the RBLR larva is its uniform coloration (both the body and head are yellowish-green). Other leafrollers have black or dark heads.

**THRIPS:** A Fond du Lac County apple grower reports that thrips are reappearing in many of the same orchard blocks that were infested in previous years. As has been the case in the past, the heaviest populations (1-8 per cluster) are concentrated in perimeter trees adjacent to wooded areas. Apple growers are advised to check buds on several different varieties in multiple locations, including the orchard perimeter, for evidence of thrips activity. An economic count of three or more thrips per fruit bud can cause abnormal leaf formation, leaf tatter, flower injury and reduced fruit set. Insecticidal materials currently available for thrips control are spinosad (Entrust) for organic orchards and spinetoram for conventional orchards (Delegate for apples or Radiant for strawberries).

**OBLIQUEBANDED LEAFROLLER:** Larvae are resuming activity after overwintering under the bark of scaffold limbs and twigs. The ¼-inch, yellowish-green caterpillars with black head capsules are expected to feed for 2-3 weeks before pupating within leaf tubes. Scouting is recommended in the week ahead.



Obliquebanded leafroller larva

Utah State University

**ORIENTAL FRUIT MOTH:** The first of three moth flights that occur annually in Wisconsin could begin soon across southern Wisconsin. Apple growers concerned about this insect should place pheromone traps over the weekend of May 2-3.

**BACILLUS THURINGIENSIS:** Apple growers who intend to apply Bt before or during bloom for control of leaf-feeding caterpillars are reminded that most formulations persist on foliage less than a week following application. Since Bt must be ingested by larvae to be lethal, it is imperative to confirm the presence of caterpillar pests and treat only if temperatures are warm enough for their activity.

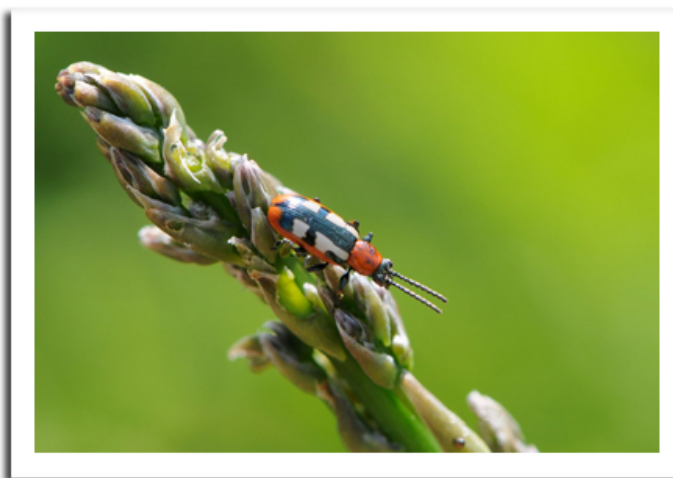
## VEGETABLES

**SEEDCORN MAGGOT:** Degree day accumulations near Beloit, Eau Claire, La Crosse and Madison have exceeded 360 (sine base 39°F) and are now appropriate for peak emergence (50%) of first generation flies. Untreated corn, soybean and vegetable seeds are at greatest risk of SCM damage during this period, especially where seed germination is delayed by low soil temperatures.

**CABBAGE MAGGOT:** Peak emergence of first generation flies can be anticipated in the next two weeks in

advanced southern portions of the state. This event generally occurs at 300 degree days (simple base 43°F), as lilacs are in full bloom. Broccoli and cauliflower plantings on light sandy soils are at highest risk of maggot infestation and should be monitored closely later this month for signs of injury. Transplanting cole crops one week before or after peak fly emergence is recommended to avoid the primary damage period.

**COMMON ASPARAGUS BEETLE:** Adult emergence and egg deposition on asparagus spears will begin during the first two weeks of May in southern and western locations where 150 degree days (simple base 50°F) are surpassed. This includes Beloit, La Crosse, Platteville and Spring Green.



Common asparagus beetle

macrophotoclairpassion.blogspot.com

## NURSERY & FOREST

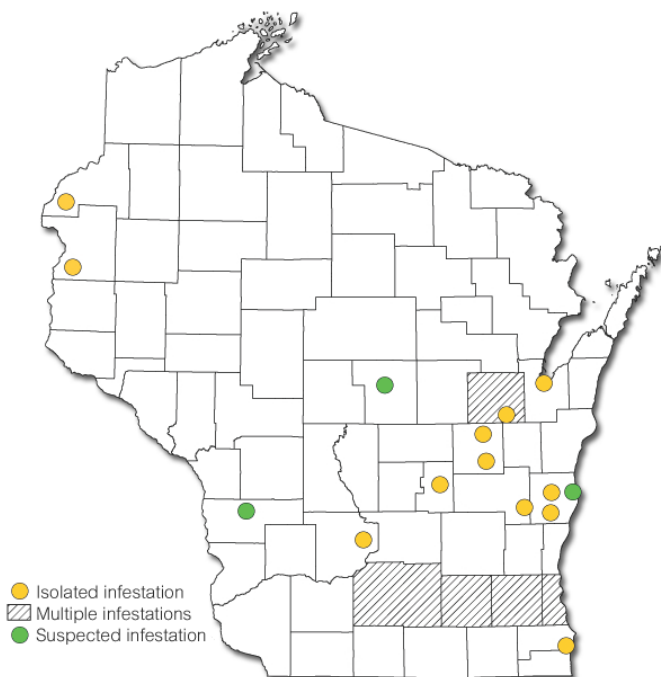
**VIRUS SURVEY OF ORNAMENTALS:** Nursery inspectors are again sampling production greenhouses in 2015 for virus-infected ornamentals. A primary objective of the survey is to intercept new deleterious viruses before they become more widely disseminated in the state. This year's virus testing includes screening for up to 12 viruses and is being conducted by the DATCP Plant Industry Laboratory, with funding from the USDA. Wholesale greenhouse growers interested in participating in the virus survey should contact their DATCP regional nursery inspector before May 15: <http://datcp.wi.gov/uploads/Plants/pdf/NurseryInspectorMap.pdf>. The survey will conclude after June 30.


**JUMPING WORM:** This invasive East Asian worm has to date been found in 14 Wisconsin counties (Brown,

Burnett, Dane, Green Lake, Fond du Lac, Jefferson, Milwaukee, Outagamie, Polk, Racine, Sauk, Sheboygan, Waukesha and Winnebago) and is suspected in another two (Portage and Vernon). First reported in the state in 2013, the jumping worm is thought to have arrived with plants imported for landscaping. This species (*Amyntas agrestis*) reproduces easily, matures in only 60 days, and rapidly degrades infested soils into dry, grainy worm castings that cannot support native organisms. The jumping worm is also sold as live bait and for composting under the common names, crazy worms, Alabama jumpers and snake worms.

DNR forest health specialists believe the jumping worm is not yet widely distributed in Wisconsin, thus vigilance can help slow its spread. New precautionary guidelines have been developed for nurseries, garden centers and landscape contractors and may be obtained by emailing [datcp.nursery@wisconsin.gov](mailto:datcp.nursery@wisconsin.gov).

### Known Distribution of Jumping Worm in WI



Wisconsin Department of Agriculture, Trade and Consumer Protection 

**APHIDS:** Infestations were observed on amethyst flower, firecracker flower, geranium 'Red Blizzard' and mandevilla vine at a Racine County retailer. Aphids are difficult to control in greenhouses due to their high reproductive capacity and resistance to insecticides. Early detection and control requires weekly scouting of plants prior to

flowering. Should treatment be justified, two applications of an insecticide registered for aphid control are typically needed. Insecticidal soaps and horticultural oils kill by contact, so thorough coverage of the undersides of leaves is critical.



Aphids on willow

DATCP Nursery Program

**GYPSY MOTH:** Egg hatch was reported for the first time this season on April 24 in Rock County and April 28 in Chippewa County. Aerial spray treatments are likely to start in southern Wisconsin late in the week beginning May 3 or early in the week beginning May 10. Treatments are scheduled in the following counties: Barron, Bayfield, Buffalo, Burnett, Chippewa, Crawford, Dane, Douglas, Dunn, Eau Claire, Green, La Crosse, Lafayette, Monroe, Polk, Richland, Rock, Rusk, Sawyer, Trempealeau, Vernon and Washburn. Airplanes will apply *Bacillus thuringiensis* var. *kurstaki*, an OMRI-listed biological insecticide acceptable for use in certified organic operations. Select areas in Eau Claire County will be treated with Gypchek, a viral insecticide specific to gypsy moth. Spraying may start at sunrise and last throughout the day as weather permits. At most sites, a second application will be done three to seven days after the first application.

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

| COUNTY      | SITE          | STLM <sup>1</sup> | RBLR <sup>2</sup> | CM <sup>3</sup> | OBLR <sup>4</sup> | AM RED <sup>5</sup> | YELLOW <sup>6</sup> |
|-------------|---------------|-------------------|-------------------|-----------------|-------------------|---------------------|---------------------|
| Bayfield    | Orienta       | 0                 | 0                 |                 |                   |                     |                     |
| Brown       | Oneida        | —                 | —                 |                 |                   |                     |                     |
| Clark       | Greenwood     | 50                | 35                |                 |                   |                     |                     |
| Columbia    | Rio           | 124               | 71                |                 |                   |                     |                     |
| Crawford    | Gays Mills    | 137               | 81                |                 |                   |                     |                     |
| Dane        | Deerfield     | —                 | —                 |                 |                   |                     |                     |
| Dane        | DeForest      | 1                 | 91                |                 |                   |                     |                     |
| Dane        | Edgerton      | 18                | 104               |                 |                   |                     |                     |
| Dane        | McFarland     | 64                | 111               |                 |                   |                     |                     |
| Dane        | Mt. Horeb     | 18                | 188               |                 |                   |                     |                     |
| Dane        | Stoughton     | 4                 | 78                |                 |                   |                     |                     |
| Fond du Lac | Campbellsport | 0                 | 0                 |                 |                   |                     |                     |
| Fond du Lac | Malone        | 50                | 24                |                 |                   |                     |                     |
| Fond du Lac | Rosendale     | 41                | 33                |                 |                   |                     |                     |
| Grant       | Sinsinawa     | 18                | 25                |                 |                   |                     |                     |
| Green       | Brodhead      | 8                 | 5                 |                 |                   |                     |                     |
| Iowa        | Mineral Point | 208               | 109               |                 |                   |                     |                     |
| Jackson     | Hixton        | 166               | 38                |                 |                   |                     |                     |
| Kenosha     | Burlington    | 49                | 10                |                 |                   |                     |                     |
| Marathon    | Edgar         | 897               | 71                |                 |                   |                     |                     |
| Marinette   | Niagara       | 0                 | 5                 |                 |                   |                     |                     |
| Marquette   | Montello      | 81                | 46                |                 |                   |                     |                     |
| Ozaukee     | Mequon        | 0                 | 2                 |                 |                   |                     |                     |
| Pierce      | Beldenville   | 200               | 141               |                 |                   |                     |                     |
| Pierce      | Spring Valley | 16                | 131               |                 |                   |                     |                     |
| Racine      | Raymond       | 0                 | 34                |                 |                   |                     |                     |
| Racine      | Rochester     | 42                | 50                |                 |                   |                     |                     |
| Richland    | Hill Point    | 500               | 40                |                 |                   |                     |                     |
| Sheboygan   | Plymouth      | 121               | 67                |                 |                   |                     |                     |
| Walworth    | East Troy     | 0                 | 0                 |                 |                   |                     |                     |
| Walworth    | Elkhorn       | 0                 | 4                 |                 |                   |                     |                     |
| Waukesha    | New Berlin    | 0                 | 3                 |                 |                   |                     |                     |

<sup>1</sup>Spotted tentiform leafminer; <sup>2</sup>Redbanded leafroller; <sup>3</sup>Codling moth; <sup>4</sup>Obliquebanded leafroller; <sup>5</sup>Apple maggot red ball; <sup>6</sup>Apple maggot yellow board.

| COUNTY      | SITE             | ECB <sup>1</sup> | TA <sup>2</sup> | BCW <sup>3</sup> | SCW <sup>4</sup> | DCW <sup>5</sup> | CE <sup>6</sup> | CEL <sup>7</sup> | WBC <sup>8</sup> | FORL <sup>9</sup> | VCW <sup>10</sup> |
|-------------|------------------|------------------|-----------------|------------------|------------------|------------------|-----------------|------------------|------------------|-------------------|-------------------|
| Columbia    | Arlington        |                  |                 |                  |                  |                  |                 |                  |                  |                   |                   |
| Crawford    | Prairie du Chien | 0                | 1               | 0                | 0                | 0                | 0               | 0                | 0                | 0                 | 0                 |
| Dane        | Mazomanie        |                  |                 |                  |                  |                  |                 |                  |                  |                   |                   |
| Fond du Lac | Ripon            |                  |                 |                  |                  |                  |                 |                  |                  |                   |                   |
| Manitowoc   | Manitowoc        |                  |                 |                  |                  |                  |                 |                  |                  |                   |                   |
| Marathon    | Wausau           |                  |                 |                  |                  |                  |                 |                  |                  |                   |                   |
| Monroe      | Sparta           |                  |                 |                  |                  |                  |                 |                  |                  |                   |                   |
| Portage     | Plover           |                  |                 |                  |                  |                  |                 |                  |                  |                   |                   |
| Rock        | Janesville       | 0                | 1               | 0                | 0                | 0                | 0               | 0                | 0                | 0                 | 1                 |
| Vernon      | Coon Valley      |                  |                 |                  |                  |                  |                 |                  |                  |                   |                   |
| Walworth    | East Troy        |                  |                 |                  |                  |                  |                 |                  |                  |                   |                   |
| Wood        | Marshfield       |                  |                 |                  |                  |                  |                 |                  |                  |                   |                   |

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