# Wisconsin Pest Bulletin

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Wisconsin Department of Agriculture, Trade & Consumer Protection

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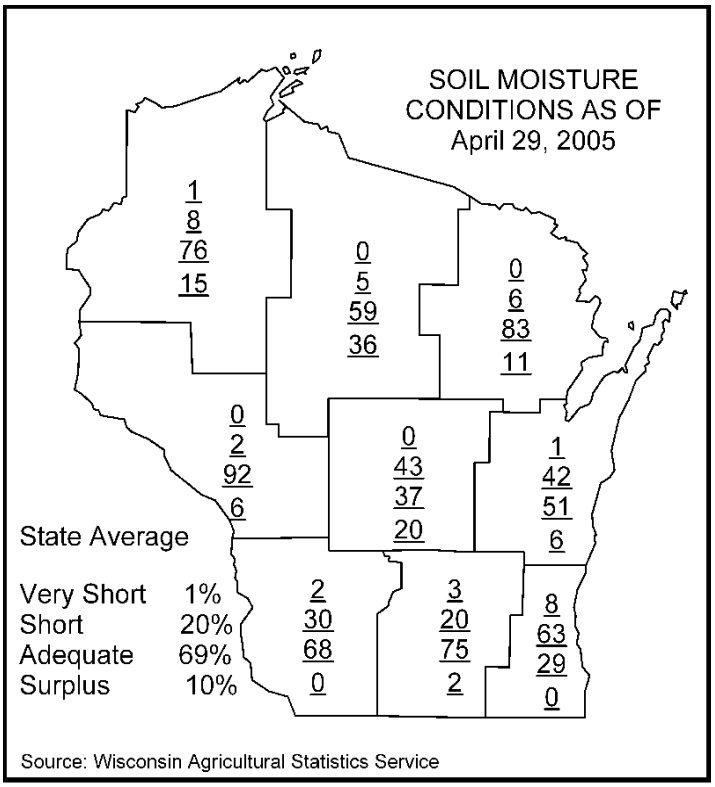
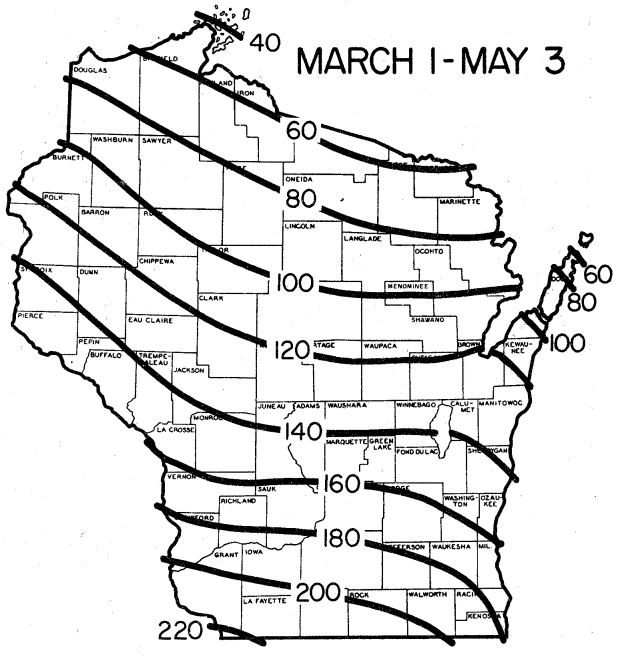



Historical Average Growing Degree-Days Accumulated Since March 1. (Wisconsin Agricultural Statistics Service)

## Weather and Pests

The first days of May offered an assortment of weather conditions, ranging from chilly, windy, even snowy during the early part of the week, to sunny and pleasant, complete with thunderstorms later in the week. The disagreeable weather kept field activities on hold until temperatures escalated into the 60s and 70s around much of the state by mid-week. Southern Wisconsin farmers returned to their fields to resume planting corn and soybeans, and it appears the growing season is back on course.

**Growing Degree Days from March 1 through May 5:**

| Site | GDD* | 2004 GDD | Base 48 | Base 40 |
|---|---|---|---|---|
| **SOUTHWEST** | | | | |
| Dubuque, IA | 266 | 270 | 257 | 543 |
| Lone Rock | 250 | 249 | 230 | 500 |
| **SOUTH CENTRAL** | | | | |
| Beloit | 258 | 258 | 240 | 509 |
| Madison | 246 | 224 | 232 | 497 |
| Sullivan | 253 | 235 | 229 | 495 |
| Juneau | 239 | 217 | 222 | 479 |
| **SOUTHEAST** | | | | |
| Waukesha | 211 | 216 | 190 | 443 |
| Hartford | 205 | 200 | 188 | 434 |
| Racine | 158 | 196 | 145 | 377 |
| Milwaukee | 162 | 186 | 146 | 378 |
| **EAST CENTRAL** | | | | |
| Appleton | 186 | 146 | 160 | 386 |
| Green Bay | 145 | 123 | 126 | 343 |
| **CENTRAL** | | | | |
| Big Flats | 231 | 195 | 207 | 460 |
| Hancock | 223 | 175 | 199 | 443 |
| Port Edwards | 216 | 160 | 190 | 423 |
| **WEST CENTRAL** | | | | |
| LaCrosse | 263 | 259 | 255 | 524 |
| Eau Claire | 240 | 187 | 223 | 468 |
| **NORTHWEST** | | | | |
| Cumberland | 200 | 132 | 179 | 400 |
| Bayfield | 109 | 62 | 89 | 277 |
| **NORTH CENTRAL** | | | | |
| Wausau | 187 | 126 | 159 | 372 |
| Medford | 177 | 112 | 158 | 362 |
| **NORTHEAST** | | | | |
| Crandon | 166 | 105 | 134 | 339 |
| Crivitz | 140 | 94 | 113 | 327 |

**GDD above modified base 50° F, with no low temperature below 50°F or above 86° F used in calculation.*

## Alerts

**Gypsy moth spraying set to begin next week --** See the "Gypsy moth" section for more information.

**Pine shoot beetle** – Since the last issue, pine shoot beetle has been confirmed in four additional Wisconsin counties: Crawford, Columbia, Jefferson and Marinette. A total of eight new counties have been added to the list of quarantined counties since trapping began in mid-February, and there are now 17 Wisconsin counties placed under quarantine to prevent the artificial spread of pine shoot beetle.

**Soybean rust –** Dade Co., Florida, has become the latest location to have soybean rust confirmed, with the confirmation announced on April 29. This brings the number of Florida counties to four, with kudzu the host in every case, and one county in Georgia, where the hosts were volunteer soybeans and nearby kudzu.

Disease forecast models are including the new locations in the forecasting system. For more information on current and projected rust conditions, visit stopsoybeanrust.com.

## Looking Ahead

**Alfalfa weevil –** Spring egg hatching continues in southern counties where very low numbers of first and second instar larvae were observed this week. With warmer temperatures in the forecast, populations of larvae are expected to increase throughout southern Wisconsin in the week ahead. Initiate scouting efforts at 300 $GDD_{48}$.

**Potato leafhopper –** Somewhere not far to the south of us, tiny lime-green migrants are making their way toward Wisconsin. Generally a few early adults are detected during the second week of May, but the official influx isn't expected until the third or fourth week of the month.

**European corn borer –** Pupation of overwintered larvae is in progress where 246 $GDD_{50}$ have accumulated. Black light trappers located in advanced southern areas can expect moths of the first flight to make an appearance in traps in the next week or two, once 347 $GDD_{50}$ are reached. Based on the historically low population of corn borers documented last fall, a very light first flight of moths is anticipated.

**Black cutworm –** Pheromone trap captures indicate migration came to a standstill in the last week. One trapping site near Newark in Rock Co. reported a capture of four moths, while counts at the additional 20 trapping sites numbered fewer than two moths per trap.

**Codling moth –** Orchardists are urged to be alert to the first sustained capture of male moths, the biofix, which could occur at advanced sites in the coming week. Flight started in Crawford and Dane Cos. last week, and near Dodgeville and Richland Center this week, following the accumulation of 201-340 $GDD_{50}$.

## Corn

**Seed corn maggot –** Infestations by seed corn maggot could occur this spring in regions of the state where corn emergence is delayed by low soil temperatures. Cool weather conditions after planting heighten the potential for damage by this pest, and injury is most common during cold springs when more than five days are required for seedling to break ground. Growers in susceptible areas should watch for symptoms of seed corn maggot activity in the month ahead. Current seed corn maggot growing degree days are as follows: Boscobel: 460; Prairie du Chien: 507; LaCrosse: 504; Madison: 446; Milwaukee: 339; Green Bay: 320; Wausau: 342; Rhinelander: 270.

**Black cutworm –** Migratory activity came to a standstill in the last week. Pheromone trap catches ranging from 0-4 moths were recorded during a seven-day period at 21 southern Wisconsin sites. A recent article in Issue no. 7 of the University of Illinois-Extension Bulletin describes very light black cutworm activity this season in Illinois as well. To date, only three Illinois counties have reported concentrated captures of nine or more moths caught over a two-day span. Although the number of intense captures has been very low in both Wisconsin and Illinois, the potential for black cutworm injury to emerging corn still exits.

**Black Cutworm Trap Catches April 28-May 5**

| Site | BCW | Site | BCW |
|---|---|---|---|
| **Grant Co.** | | **Green Co.** | |
| Benton | 0 | Cadiz Springs | 0 |
| Hazel Green | 0 | W Monroe | 0 |
| Sinsinawa | 0 | E Monroe | 1 |
| Dickeyville | NA | Juda | 1 |
| Lancaster | 1 | Brodhead | 0 |
| **Lafayette Co.** | | **Rock Co.** | |
| South Wayne | 1 | Janesville | 2 |
| Gratiot | 0 | Avon | 0 |
| West Gratiot | 0 | Newark | 4 |
| Shullsburg | 0 | West Beloit | 1 |
| West Shullsburg | 0 | East Beloit | 0 |

**Corn earworm –** In the past week, the first corn earworm moths of the season were captured in Pulaski County, at the southernmost tip of Illinois. Although migrants still remain a long way from the Wisconsin border, early sightings are a good reminder that on rare occasions corn earworm problems have developed in late June. In the Midwest, corn earworm is typically a late-season pest; however, if strong southerly winds shift in

our direction, moths may begin arrive earlier than expected.

## Soybeans

**Bean leaf beetle –** The first overwintered bean leaf beetle of the season was detected in a Green Co. alfalfa field earlier in the week. This finding signals bean leaf beetles are coming out of hibernation and migrating to alfalfa fields to wait for soybeans to emerge. The longer the duration between bean leaf beetle emergence and soybean emergence, the better. Mortality rates are higher when no host material is available for the beetles. The 4% of soybeans that have already been planted in the southern and east central districts will be particularly attractive to the overwintered generation of beetles.

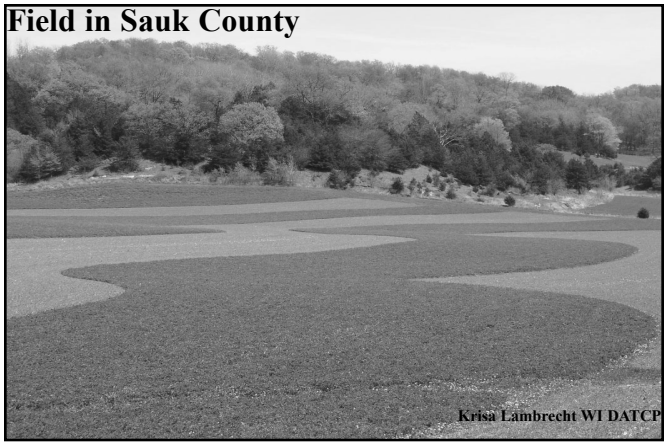
**Soybean aphid –** The unfolding soybean aphid drama that soybean growers have been watching since last fall took yet another turn this week, as entomologists at Purdue University reported finding alatoid ("with wing pads") soybean aphid nymphs near the campus in West Lafayette, Indiana. Alatoid nymphs are the adolescents, if you will, of the aphid world. When their intermediate "wing pads" give rise to fully-formed wings, these adolescent Indiana aphids will be equipped with the essential anatomical features needed to make their way to soybean fields. The problem is, of course, that there are no soybean fields to migrate to at this time. Many of these eager winged aphids will meet their demise in migration, while others may return to buckthorn to begin a new generation of aphids. This is where the story gets a little uncertain. Because soybeans aphids are still relatively new to the Midwest, there is much that remains unknown about their biology and behavior. Will all the alatoids die before soybeans emerge? Will some alatoids return to buckthorn to begin new generations of aphids? Only time will tell. Tune in next week to *As the Aphids Migrate.*

Information on the finding of alatoid nymphs from Issue no. 7 of the Bulletin—pest management and crop development information for Illinois, available on the Web at: http://www.ipm.uiuc.edu/bulletin

## Forages

**Alfalfa weevil –** Low number of adults and first instar larvae were swept from Green, Rock, and Sauk Co. fields this week. Adults numbered in the range of one to five per 50 sweeps, while no more than three first-instar larvae were found in any field. Higher temperatures expected over the weekend should cause a considerable increase in egg hatching and more larvae will be detectable next week. Scouting in the week ahead is critical.

**Pea aphid –** Populations in southern alfalfa fields increased slightly since last week as nymph production continued. Sweep net counts ranged from 10-17 aphids per 50 sweeps. If warm temperatures persist, populations may double, perhaps even triple by this time next week. The best method for assessing abundance is to sample stems and estimate the number of aphids per stem. Randomly select ten stems from five separate locations within a field. Shake the stems into a carton or over a tray and calculate the average number of aphids per stem. Be sure to handle alfalfa stems carefully as pea aphids readily fall from the plant when disturbed.



**Field in Sauk County**

**Tarnished plant bug –** Currently this is the second-most abundant insect in southern Wisconsin alfalfa fields, with counts ranging from 7-10 adults per 50 sweeps. The hatching of eggs is in the forecast, meaning an escalation in plant bug activity is imminent. Nymphs may begin to appear in fields by next week. Alfalfa fields can generally sustain very high levels of plants bug adults and nymphs. The threshold in alfalfa 3" or shorter is three per sweep, and increases to five per sweep in alfalfa that is taller than 3".

**Springtails (Collembola: Sminthuridae) –** These minute alfalfa inhabitants may resemble aphid nymphs upon first glance, but a closer examination reveals an altogether different organism. The common name "springtail" refers to the ability of these organisms to "jump" when disturbed. The Sminthurids present in Wisconsin hay fields are mustard yellow as eggs, but turn black after hatching. Hundreds were netted from 12-14" fields this week. Most springtails feed on decaying organic matter, and are rarely considered to be crop pests.

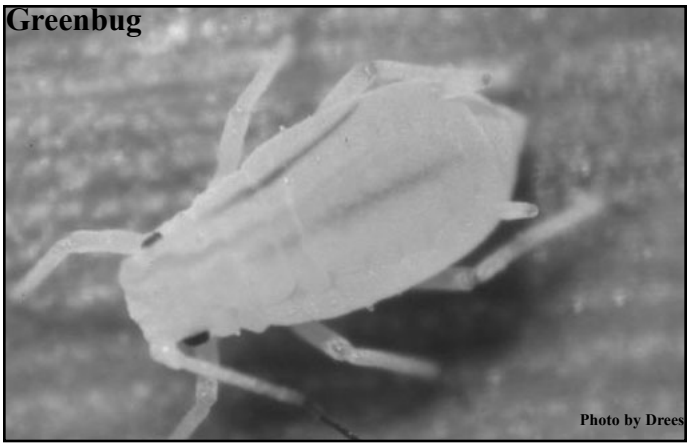
## Small Grains

**Small grains pest complex –** While fields swept during the latter part of the week were free of pest insects for the time being, a few aphids species, namely the English grain aphid and greenbug, could begin to appear in fields in the week ahead. English grain aphids and greenbugs disperse from the southern states in the springtime to infest small grains in the northern states. English grain


aphids generally appear by late April, greenbugs arrive slightly later and are usually detectable by early May. Both aphids are vectors of barley yellow dwarf virus (BYDV), a virus which infects not only barley but wheat and oats as well; in the latter host, it causes "oat red leaf". At times, even light aphid levels may lead to serious red leaf conditions.

The two aphids are fairly easy to distinguish. In English grain aphids, the legs and cornicles are black (see image above). Greenbugs are entirely green, as the name suggests. Scouts should be alert to these aphid species in the course of the next few weeks.

**Winter injury –** Winter wheat has sustained considerable injury from harsh winter conditions, particularly in the east central region of the state. Reports from Brown, Oconto, Washington Cos. indicate winterkill is severe.



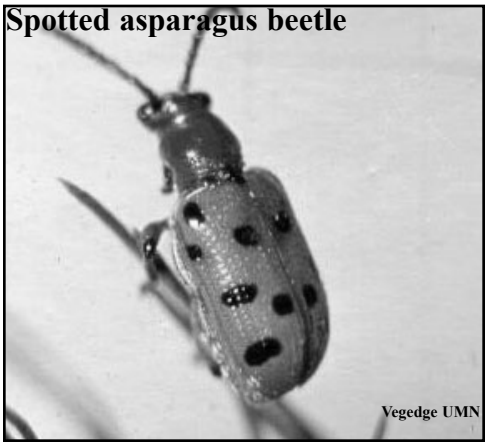

**Rusts of small grains –** The latest issue of the Cereal Rust Bulletin (http://www.cdl.umn.edu/crb/2005crb/05crb4.html) indicates that in late April, traces of wheat stem rust were found in plots of susceptible wheat in central Texas, wheat leaf rust was widespread and severe from central Texas to Florida, and was present at low levels in southern Kansas. Wheat stripe rust was found in north central Texas and Oklahoma, where researchers report virulence on previously resistant cultivars. Stripe rust is favored by cool temperatures, which were common throughout much of the nation over the last several weeks.

Oat stem rust was observed in central Texas, including collections which appear virulent on several previously-effective resistance genes. Oat crown rust was common throughout much of the south, and in California. Light pycnidial infections were detected on buckthorn leaves in the crown rust nursery at St. Paul, MN on May 2nd. Rye leaf rust was found in fields in the Florida panhandle and in southern Alabama.

Current small grain rust reports are available in the Cereal Rust Bulletin, or via an email listserv also accessible through the USDA Cereal Disease Lab at http://www.cdl.umn.edu/index.htm

## Vegetables

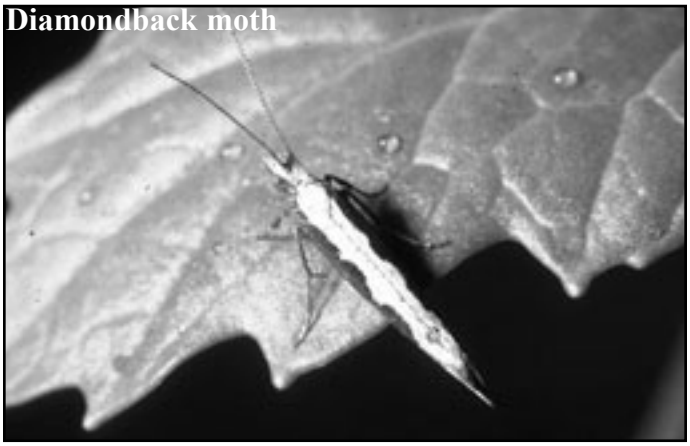
**Spotted asparagus beetle –** Last week, the common asparagus beetle (CAB) began laying eggs in southern Wisconsin. Egg laying continued this week in parts of the state where 150 -240 $GDD_{50}$ have accumulated. The spotted asparagus beetle (SAB) normally becomes active a week or two after CAB, which is right now in many areas of the state. Unlike CAB, SAB does not cause economic damage, and it is important not to confuse SAB with beneficial ladybeetles.




**Diamondback moth –** Diamondback moths overwinter in Wisconsin and emerge from protected sites in mid-May to lay eggs. Adults are active nocturnally and often show up in black light traps. When at rest, three diamond shaped spots can be seen on the back of the one inch long, dark brown moth. Larvae are small, 3/8 inch long, creatures with pointed ends. They wiggle when disturbed and fall from the plant. Diamondback moth larvae mine between leaf surfaces and then pupate in white silk cocoons. Three to five generations can occur each season. *Be sure to check transplants from southern states for larvae and pupae.*

**The buzz on black lights -** Black light trapping enables us to monitor the activity of nocturnal moths, and predict when to scout for larval damage. Wisconsin has a network of 15 cooperators around the state who monitor black light traps. These traps are located in Chippewa,

Columbus, Dane, Grant, Manitowoc, Marathon, Monroe, Portage, Rock, Sauk, St. Croix, Walworth and Wood Cos.


Diamondback moth

This season, cooperators will be reporting counts for the following moths: European corn borer, corn earworm, true armyworm, fall armyworm, black cutworm, dingy cutworm, variegated cutworm, spotted cutworm, western bean cutworm, cabbage looper, and celery looper. Most of these insects are minor pests in Wisconsin, and are monitored to catch the occasional outbreak. Two of the moths, European corn borer (ECB) and corn earworm (CEW), are very familiar pests to Wisconsin growers, and can cause considerable economic damage.


Black light trap at Lancaster

R.Klein-Kodl, WI DATCP

Cooperators should place traps now to catch the earliest emerging corn borers, which could take flight sometime next week. A catch greater than 10 corn borer moths per night for three consecutive nights means that moths are laying eggs. Weekly black light trapping results can be found at the end of the Bulletin.

## Apiary

**New mite control option --** Mite-AwayII™ formic acid gel pads approved for use in Wisconsin. This new varroa and tracheal mite treatment product has been granted Section 3 registration by the United States Environmental Protection Agency and is registered for use in Wisconsin now.

Mite-AwayII™ is effective in hives with brood, giving 93.31 ± 5.50% varroa control. It is a single application treatment, remaining in the hive for 21 days. Studies have shown no problem with queen loss. Supers can be put on immediately after treatment period, though no honey can be harvested for two weeks.

Mite-AwayII™ works by turning the hive into a fumigation chamber, releasing formic acid vapors into the hive in a controlled way. Treatments require the use of a spacer rim and some early brood kill may occur, but colonies rebound quickly.

Spring treatment can be applied when the temperatures reach the levels set out on the label: daily highs of 50-79º F. Screen bottom boards must be removed and replaced with a standard Langstroth bottom board, or closed over. Front entrances must be fully open. For complete application information and distributors see www.miteaway.com or call 866-483-2929.

## Forest and Landscape

**Virus on bleeding heart –** Several potted bleeding heart were found infected with symptoms of an unidentified virus at nursery dealers in Portage and Wood Cos. Plants were ordered removed & destroyed. Despite a number of efforts to identify the causal agent, the presumed virus remains unknown. In 2003, a symptomatic bleeding heart was tested by ELISA for a variety of viruses common to ornamental plants and came back negative. The viruses tested for were: alfalfa mosaic, arabis mosaic, broad bean wilt, chrysanthemum virus B, cucumber mosaic, impatiens necrotic spot, prunus necrotic ringspot, tobacco mosaic, tobacco ringspot, tobacco streak, tomato aspermy, tomato mosaic, tomato ringspot, tomato spotted wilt and potyvirus group.

**Wier's cushion rust –** This rust was identified on Colorado spruce at nursery dealers in Portage and Wood Cos. The rust had not begun to sporulate at the nursery dealer but was coaxed to sporulate in the lab. More information on this disease can be found on the UW Extension website at http://www.uwex.edu/ces/wihort/gardenfacts/XHT1119.doc

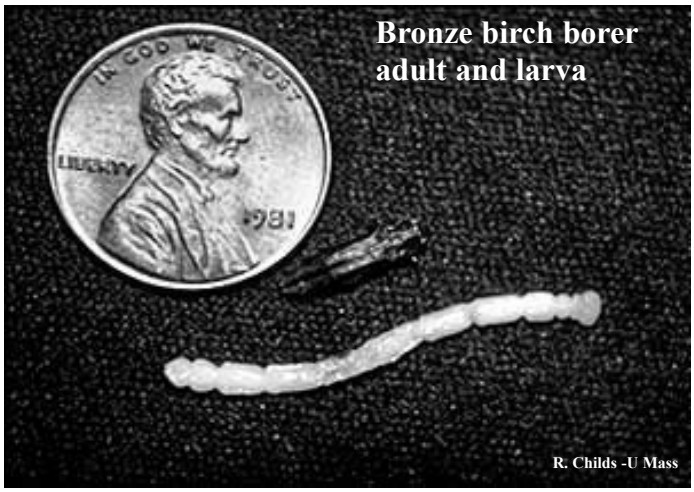
Wier's cushion rust has only been found in the past few years in Wisconsin. If found on nursery stock, the stock is held and treated or returned to the supplier.

**Canker –** Red and yellow-twigged dogwood at nursery dealers in Portage and Wood Cos. had the telltale signs of being overwintered in pots. The causal organism has not been identified yet.

**Powdery mildew –** Powdery mildew has been observed on pulmonaria, delphinium and roses at nursery dealers

in Portage Co. Infections were light to moderate.

**Bronze birch borer –** Weeping cutleaf birch were found infested with bronze birch borer at a nursery dealer in Portage Co. The infested trees were removed and




destroyed as there is no curative treatment for this pest.

## Gypsy Moth

**Gypsy moth spraying to start next week in three counties --** The 2005 gypsy moth spray season is tentatively slated to start on Wednesday, May 11, in three southern Wisconsin counties under the Slow the Spread program. Five sites in Green County, one site in Grant County and one site in Iowa County will be sprayed next week on May 11, weather permitting. Adverse conditions, such as rain, fog, high winds or frost could postpone spray plans, often times at the last minute.

In 2005, the STS program plans to spray 65 sites in 19 western Wisconsin counties between early May and the end of July or early August. Sites will be treated either twice (5-10 days apart) with Btk, or once with NPV (Gypchek) or Pheromone Flakes.

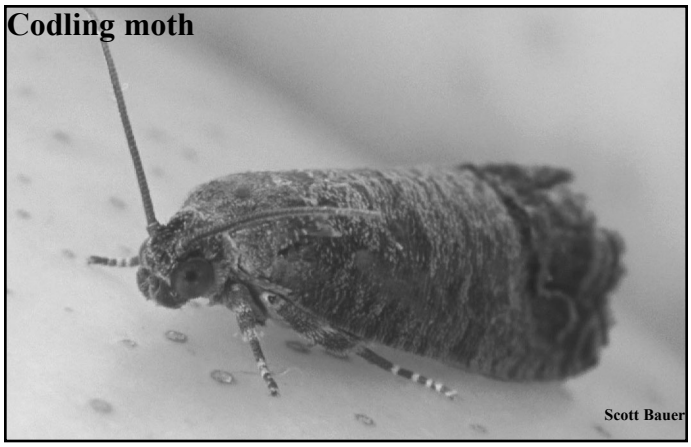
To find out about spray plans, call our toll-free number at


1-800-642-Moth (800-642-6684).

## Fruit

**Apple scab –** The rains falling over much of the state today (May 6) will set the stage for the first substantial infection period of the season. According to Orchard IPM Specialist John Aue, "There is a lot of spore maturity, so the next infection period should result in the greatest spore release of the primary season."

**Codling moth –** Effective management of this orchard pest requires an approach that relies on both pheromone traps and growing degree day models. Pheromone trap catches are used to time the start of a sustained CM flight, or biofix, while close monitoring of GDD after the biofix will help to time a strategic insecticide application. In southern and west central Wisconsin orchards where 201-340 $GDD_{50}$ have been reached, the flight of moths is just getting underway. As codling moths begin to appear in pheromone traps, cooperators should monitor closely for the first sustained flight of five male moths. Once the biofix has occurred, begin counting degree days. The first spray (using standard chemistries) should be applied approximately 250 $GDD_{50}$ after the biofix, and a second application may be needed 10-14 days later. For growth regulators, such as Esteem, applications should be made 100 $GDD_{50}$ after the biofix, just prior to egg hatch. The above recommendations are from *the IPM Manual for Minnesota Apple Orchards*,




published by the MN Department of Agriculture June, 2003.

**Spotted tentiform leafminer –**With key STLM events in progress throughout the state, apple growers with a history of STLM problems should closely monitor degree day accumulations in the next two weeks. The first flight of moths has now peaked in many Wisconsin counties and the time to begin scouting for first generation sap-feeder mines is here. Readers may recall that the ability to differentiate between the two stages of larvae is an essential part of an effective STLM management program. Sap-feeder leafmines are made

by first, second and third instar STLM larvae, and are visible only on the undersides of apple leaves. Tissue-feeder mines are formed by the more mature, fourth and fifth instar larvae and are very noticeable as an oval, speckling pattern on the upper leaf surface.

The reason it is important to differentiate between STLM sap-feeder and tissue-feeder mines is because chemical sprays are only effective against the sap-feeder stage. When scouting for sap-feeder mines in the week ahead, collect five leaves from ten trees, for a total of 50 leaves. Examine each leaf for mines and use the table below to determine is treatment may be justified. Note, the threshold for STLM increases with each generation; treatment is seldom needed for the third generation.

For detailed STLM scouting instructions see UW-Extension Publication A3211 *Spotted Tentiform Leafminer: A Pest of Wisconsin Apple Orchards* by D.L Mahr and N.C. Ravdin.

**Spotted Tentiform Leafminer Thresholds**

| Generation | Treatment Threshold |
|---|---|
| First | 0.1 mine per leaf |
| Second | 1 mine per leaf |
| Third | 5 mines per leaf |

*Note: thresholds apply to sapfeeder leafmine only. See text for further explanation..*

**Special Apple Pesticide Registration Proposed; Comments Due May 20 --** Apple growers will have another pesticide available to control an insect in their orchards under a special pesticide registration proposed by the Wisconsin Department of Agriculture, Trade and Consumer Protection. The special registration will allow growers to use Rimon 0.83 EC to control codling moth in the apple orchards. The larvae of the codling moth bore into the fruit causing "wormy" apples.

DATCP has been authorized by the US Environmental Protection Agency to register pesticide products without prior federal approval. This procedure gives states flexibility to meet local needs such as controlling a plant disease or pest outbreak. EPA has 90 days to review the proposal and reject the state's decision.

Citizens have until Friday, May 20, 2005 to comment on this proposed five-year special pesticide registration.

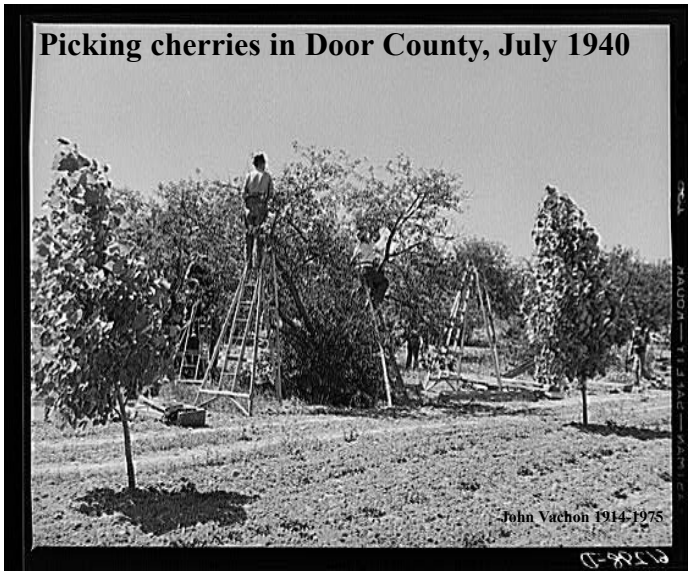
Rimon 0.83EC, contains the active ingredient, Novaluron and is manufactured by Makhteshim-Agan of North America, Inc.

Novaluron is an insect growth regulator. When the codling moth larvae ingest the pesticide, the insect's development is disrupted so it cannot molt or hatch to the next life stage. In field trials, Rimon's ability to control codling moth has been shown to perform equal to that of organophosphate pesticides.

Novaluron is currently registered for use on apples. This special registration is for a different product formulation. The company has limited manufacturing capabilities for the current federally registered product.

The preliminary environmental assessment indicates the proposed registration will not require a full environmental impact statement.

For a copy of the environmental assessment, contact Pat Kandziora, P.O. Box 8911, Madison, WI 53708-8911, (608) 224-4547 or review the assessment at the Department, Mon.-Fri., 7:45 a.m.-4:30 p.m., 2811 Agriculture Dr., Madison, 2nd floor. Comments received on or before 4:30 p.m., May 20, 2005 will become part of the preliminary environmental assessment record. Send comments to Pat Kandziora by mail at the above address, or fax to (608)224-4656, or send an email to pat.kandziora@datcp.state.wi.us.



**APPLE INSECT TRAPPING RESULTS**

| | Date | STLM | RBLR | CM | OBLR |
|---|---|---|---|---|---|
| **Crawford Co.** | | | | | |
| Gays Mills 1 | 4/24-5/1 | 99 | 11 | 0 | 0 |
| Gays Mills-E2 | 4/26-5/2 | | | | |
| **Iowa Co.** | | | | | |
| Dodgeville | 4/28-5/5 | 9 | 13 | 2 | 4 |
| **Richland Co.** | | | | | |
| Hill Point | 4/27-5/3 | 85 | 8 | 0 | |
| Richland Center -W | 4/26-5/2 | 82 | 1 | 0 | |
| Richland Center-E | 4/26-5/2 | 15 | 2 | 1 | |
| **Sauk Co.** | | | | | |
| Baraboo | 4/26-5/2 | 39 | 7 | 0 | |
| **Dane Co.** | | | | | |
| Deerfield | 4/26-5/4 | 28 | 8 | 0 | 2 |
| Dodge Co. | | | | | |
| Brownsville | 4/29-5/5 | 32 | 7 | 0 | 0 |
| **Green Co**. | | | | | |
| Brodhead | 4/28-5/5 | 0 | 6 | 0 | 0 |
| **Racine Co**. | | | | | |
| Raymond | 4/29-5/6 | 16 | 64 | 0 | 2 |
| Rochester | 4/28-5/5 | 337 | 46 | 0 | 0 |
| **Kenosha Co.** | | | | | |
| Burlington | 4/29-5/6 | >500 | 10 | 0 | |
| **Ozaukee Co.** | | | | | |
| Mequon | 4/29-5/5 | 200 | 10 | 0 | |
| **Waukesha Co.** | | | | | |
| New Berlin | 4/29-5/6 | 10 | 14 | 0 | 0 |
| **Pierce Co**. | | | | | |
| Beldenville | 4/28-5/5 | 1 | 3 | 0 | 2 |
| Spring Valley | 4/29-5/6 | 88 | 51 | | |
| **Jackson Co**. | | | | | |
| Hixton | 4/25-5/2 | 30 | 4 | | |
| **Trempealeau Co**. | | | | | |
| Galesville | 4/27-5/5 | 950 | 10 | 0 | 0 |
| **Marquette Co** | | | | | |
| Montello | 4/24-5/1 | 18 | 18 | 0 | 0 |
| **Brown Co.** | | | | | |
| Oneida | 4/24-5/2 | 0 | 0 | 0 | 0 |
| **Sheboygan Co**. | | | | | |
| Plymouth | 4/29-5/6 | 426 | 36 | 0 | 0 |
| **Fond du Lac Co.** | | | | | |
| Malone | 4/28-5/5 | 15 | 4 | 0 | |
| **Marinette Co**. | | | | | |
| Wausaukee | 4/29-5/6 | 0 | 0 | 0 | |

**Black Light Trapping Results**

| Trap Site | Date | ECB | True AW | Fall AW | BCW | DCW | SCW | VCW | WBCW | CabL | CelL | CEW |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Southwest** | | | | | | | | | | | | |
| Lancaster | 4/29-5/5 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **South Central** | | | | | | | | | | | | |
| W Arlington | 4/29-5/6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mazomanie | 4/28-5/5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| West Madison | 4/29-5/4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Southeast** | | | | | | | | | | | | |
| Janesville | 4/30-5/6 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **North Central** | | | | | | | | | | | | |
| Wausau | 4/29-5/5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

***ECB**, European corn borer; **AW**, armyworm; **BCW**, black cutworm; **DCW**, dingy cutworm; **SCW**, spotted cutworm; **VCW**, variegated cutworm; **WBCW**, western bean cutworm; **Cab L**, cabbage looper; **CelL**, celery looper; **CEW**, corn ear worm*

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## Web Site of the Week

**Minnesota Fruit and Vegetable IPM News**

http://www.vegedge.umn.edu/MNFruit&VegNews/mnindex.htm

We think very highly of this publication from our neighbors to the west. A partnership effort of the MN Department of Agriculture and the University of MN, this alliance of two previous newsletters provides timely observations and thorough background information on a number of pests of concern to fruit and vegetable growers. The same group has also produced two very good scouting guides: *Field Guide for Identification of Pest Insects, Diseases, and Beneficial Organisms in Minnesota Apple Orchards* and *Field Guide for Identification of Pest Insects, Diseases, and Beneficial Organisms in Minnesota Strawberry Fields*. Both are highly recommended, and are available online through the web site.

## Quote of the Week

But the flower leaned aside
And thought of naught to say,
And morning found the breeze
A hundred miles away.

Robert Frost (1874–1963), U.S. poet.




http://www.soils.wisc.edu/wimnext/tree/arbor.html