



# Wisconsin Pest Bulletin

Volume 47, No. 12

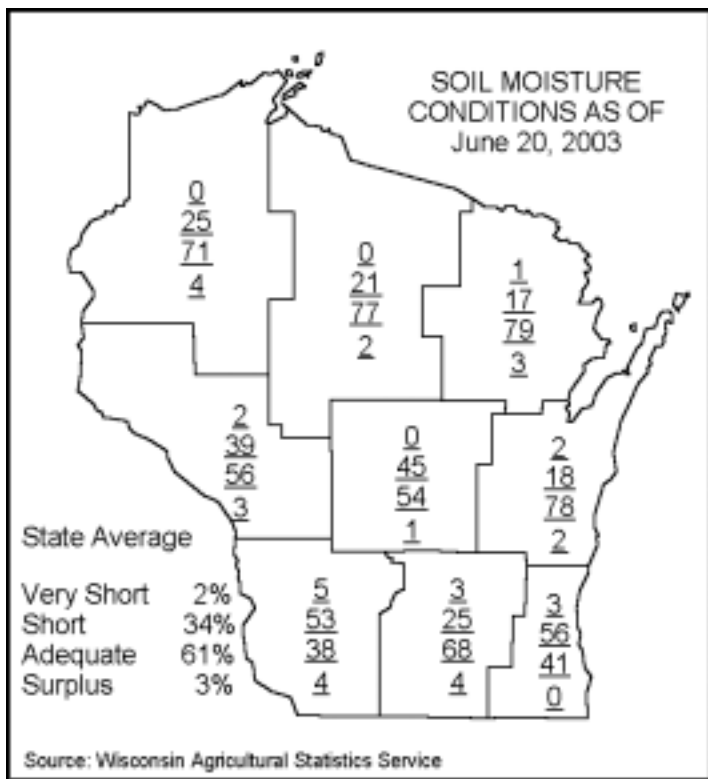
June 27, 2003

Wisconsin Department of Agriculture, Trade & Consumer Protection

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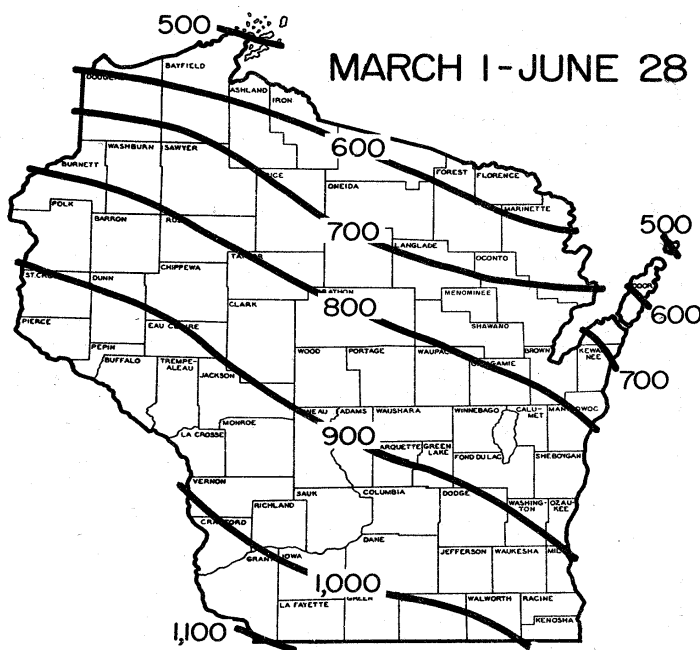
## Weather and Pests

The past week was one of the warmest so far this year, and both crops and insects responded well. Scattered rain mid-week provided a much needed soaking for southern corn and soybean crops beginning to show signs of drought stress, but more precipitation would be beneficial. Second crop hay harvest is beginning in the southwest while first crop harvest is wrapping up in the far northern regions of the state. **Potato leafhopper** reproduction is progressing at a rapid pace and presenting problems for potato growers in the central sands. **Soybean aphid** infestations are being detected as far north as Portage Co.

### Growing degree days from March 1 through June 26 were:

Site	2002 GDD*	Normal GDD	Base 48	Base 40
<b>SOUTHWEST</b>				
Dubuque, IA	911	971	1077	1634
Lone Rock	911	903	983	1619
<b>SOUTHCENTRAL</b>				
Beloit	884	943	1016	1616
Madison	860	877	982	1579
Sullivan	816	895	951	1525
Juneau	798	863	893	1507
<b>SOUTHEAST</b>				
Waukesha	737	858	936	1430
Hartford	737	831	893	1432
Racine	648	819	934	1321
Milwaukee	654	791	910	1323
<b>EAST CENTRAL</b>				
Appleton	753	736	797	1418
Green Bay	628	646	756	1257
<b>CENTRAL</b>				
Big Flats	868	841	895	1544
Hancock	852	826	889	1532
Port Edwards	807	773	877	1459
<b>WEST CENTRAL</b>				
LaCrosse	916	950	962	1619
Eau Claire	895	826	881	1590
<b>NORTHWEST</b>				
Cumberland	789	695	823	1412
Bayfield	557	451	497	1045
<b>NORTH CENTRAL</b>				
Wausau	732	678	798	1348
Medford	705	629	782	1310
<b>NORTHEAST</b>				
Crivitz	632	586	676	1232
Crandon	654	572	656	1230

\* GDD (Growing Degree Days) are synonymous with degree-days above modified base 50° F, with no low temperature below 50° F or above 86° F used in calculation.



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

## Looking Ahead

**Potato leafhopper** – Reproduction has picked up in the last week and numbers of adults and nymphs are moderate to high on a wide variety of plants. Continue to monitor populations in forage crops and potatoes in the week ahead.

**Armyworm** – Moths have been active and abundant this week. The potential exists for damaging populations in corn and small grains.

**European corn borer** – First instar larvae are common in the southern and central regions, where larval injury was noted on 8% to 32% of the plants. In the days ahead 2nd and 3rd instar larvae will begin tunneling into corn midribs. Once larvae bore into the midribs of leaves or stalks, treatments are no longer effective. Scout now to determine whether treatment may be justified and to time spray applications during the most effective treatment window, 800-1000 GDD (base 50°F).

**Soybean aphid** – Aphid infestations were detected as far north as Portage Co. this week. Infestations remain spotty within fields, and no uniform trends in population growth were evident this week. Counts are rising so continue to monitor the rate of growth over the next few weeks as numbers could begin to build rapidly.

## Forages

**Potato leafhopper** – Counts generally average fewer than four per sweep in the southern and central counties. The proportion of nymphs has risen in the south since last week, indicating that reproduction has picked up. Counts of adults and nymphs in Dane and Green Co. fields ranged from 0.9 to 1.6 per sweep in 6-10" alfalfa. In Marquette, Portage and Waushara Cos. sweep net counts were slightly higher, ranging from 1.2 to 3.1 per sweep in 10-12" fields. Nymphs constituted less than 20% of the population in fields in the central part of the state.

**Alfalfa weevil** – Larval numbers are declining due to pupation. Some tip feeding, generally less than 30%, was visible in central fields where populations of late instar larvae did not exceed 1 per sweep. Northern fields may still be subject to damaging populations. Continue to check regrowth for larvae in the northern two-thirds of the state.

**Meadow spittlebug** – Adults are numerous in the southern and central regions of the state. Final instar nymphs were also common in central fields.

**Pea aphid** – Counts in central alfalfa fields are high, ranging from 38 to 49 per sweep. Chemical control in pea may be warranted soon in fields where sweep net counts of >35 aphids/sweep are encountered on peas that are more than 15 days from harvest. Pea aphids vector **seedborne mosaic** and **alfalfa mosaic virus**, both of which may reduce pea yields.



**European corn borer** – Moth activity is on the decline in the south central and southwest districts while moths are just beginning to show up at northwest black light trap sites. Shot-hole injury by first instar larvae is common throughout the southern and central counties. Larval feeding was noted on 8-16% of the plants in Marquette Co. fields, 10-12% of the plants in Waushara Co. fields, and 0-32% in Portage Co. fields. Counts of 1-3 first instar larvae were found per infested plant. In instances where chemical control may be warranted (50% infestation), we have entered the period when such treatments would be most effective (800-1000 DD).

**Armyworm** – Moths have been particularly active in the last week, and black light trap catches indicate that adult populations are moderate to high. The potential exists for localized outbreaks. Generally, damage is most likely to occur in grassy corn fields. Only light to moderate amounts of damage were observed in Marquette and Waushara Co. corn fields where 4-26% of the edge plants showed signs of injury.



**Corn leaf aphid** – Trace numbers of aphids are beginning to show up in southern V9-V11 stage corn fields.

Numbers are likely to build over the next few weeks and peak around tassel emergence. Corn leaf aphids injure corn plants by removing plant sap, and by secreting a substance called "honeydew" that provides a medium for the growth of sooty mold. Plants with dense corn leaf aphid populations may take on a black or sooty appearance as mold begins to develop on the honeydew secretions. Corn plants are most susceptible to corn leaf aphid injury during the late whorl to pollen shed stage. Populations tend to decline quickly after tassel emergence due to natural enemies, and as winged aphids migrate to other hosts. Corn leaf aphids rarely reach economically important levels.

**False Japanese beetle** – During this week's survey, false Japanese beetles were observed flying about sandy Waushara and Portage Co. corn fields. False Japanese beetles are not an uncommon pest



in corn and soybean fields planted in sandy soils at this time of year. Adults begin appearing during the third and fourth weeks of June and live for approximately 20 days. The false Japanese beetle is a member of the Junebug family and bears a strong resemblance to the Japanese beetle, but is brown and drab compared to the shiny, metallic green Japanese beetle (see image). Additionally, the Japanese beetle usually occurs later in the season in field crops, toward the end of July and into August. False Japanese beetle larvae feed on plant roots, but no economic damage to soybean has been reported in Wisconsin to date.

**Rose chafer** – Adult activity was high in Marquette and Waushara Co. corn fields, where several adults were clustered and mating on a single plant. Rose chafer activity in the sandy central regions of the state is common at this time of year. The adults appear in June and live for about 3 weeks. They skeletonize the leaves on a wide variety of plants, including grapes, fruit trees, roses, and raspberries. The grubs feed on the roots of plants in old fields, pastures and other open areas, but do not cause economic damage. Rose chafer grubs are not found in lawns; most feeding is on weeds and non crop plants (UW-Madison Extension)



## Soybeans

**Soybean aphid** – Infestations are becoming more prevalent throughout the southern and central districts, but levels remain highly variable. Colonies appear to be growing rapidly in southern Green Co. fields where as many as 98% of the plants in one field were infested with an average of 22 aphids per plant, but in scattered Iowa and Lafayette Co. fields no aphids were detected. At the West Madison Research Station in Dane County, the percent of plants infested rose sharply to 56% with an average of 19 aphids per plant, similar to previous years. UW-Madison soybean aphid researcher Bob Ellingson expects this growth to continue, and soon 100% of plants will contain aphids. At the Arlington Research Station in Columbia Co., aphid population growth is behind somewhat and variable, falling between 5% and 20%. The per-plant numbers of aphids were also very low at Arlington, averaging less than 1-10 per plant. Bob expects these fields will also probably attain 100% infestation in the coming weeks. In Sauk Co. 13-53% infestations were found, with an average of 9-17 aphids per infested plant. In Dodge, Jefferson and Walworth Cos. levels ranged from 0-33% and averages of 11-24 aphids per infested plant were observed. Elsewhere the numbers were substantially lower. Juneau Co. fields had 0-10% infestations with 0-11 aphids per infested plant. Marquette and Portage Co. fields ranged from 0-18% with 0-8 aphids per infested plant.

**Bean leaf beetle** – Preliminary results of the 2003 survey of overwintered bean leaf beetle indicate that a high

percentage of the overwintered population carried **bean pod mottle virus (BPMV)**. During the survey 107 alfalfa fields were surveyed in the southern third of the state. Although bean leaf beetles are a soybean pest, we surveyed alfalfa fields because overwintered beetles appear well in advance of soybean planting and wait in forage crops for soybeans emerge; alfalfa was the most suitable place to look for overwintered beetles early in the season. A total of 152 overwintered beetles were collected from 41 of the 107 survey sites. Individual beetles were tested, and 72% of the beetles (109/152) tested positive for BPMV.

Bean leaf beetle numbers in the past two years have reached historically high levels, and an increasing number of soybean growers are experiencing problems with BPMV or a combination of the beetle and the virus. The bean leaf beetle and BPMV are becoming the leading pests of Wisconsin soybeans. This is the first time this survey has been conducted here. While more work needs to be done, these results suggest that a high percentage of Wisconsin's overwintered bean leaf beetle population are carriers of the bean pod mottle virus; therefore, in future years early-season virus transmission may become a growing concern for the state's soybean producers.

## Forest, Shade Trees, Ornamentals and Turf

**Leaf crumpler** – The leaf crumpler, *Acrobasis indiginella*, is primarily a pest in nurseries and ornamental plantings. Before the introduction of organochlorine and organophosphate insecticides this insect was an important pest of orchard trees. The leaf crumpler occurs in the eastern half of the U.S. and also on the West Coast. In the north there is one generation per year but in the south there may be two generations.

The leaf crumpler is a pest of many rosaceous plants including, apple, crabapple, pear, *Prunus* spp., pyracantha and cotoneaster. In Wisconsin it is a pest mainly of cotoneaster and crabapple. Inspectors see it mainly on *Malus sargentii* 'Tina' and *Malus* 'Coralcole' or (coralburst crabapple). In winter, it is easy to pick out infested trees as they have clumps of dead leaves encrusted on the twigs. These clumps are actually composed of leaf parts, fecal pellets and silk. These clumps adhere strongly and will remain long after the adult has emerged.





The insect overwinters as a small (approx. 4 mm) larva in its silk and leaf case. In spring, as cotoneaster leaves are emerging, the larva ventures out to feed on leaves along the twig where the caterpillar's case is located. The larva consumes all the leaf tissue except the midrib, incorporating it into the enlarging case. Peak feeding occurs in late June and early July, often stripping entire plants of their foliage. Pupation occurs from mid-June to early August and lasts an average of 12 days. After emergence the moths mate and egg laying begins within 24 hours. Females lay an average of 130 eggs, most being laid in the first four days. The average life of the adult is 10 days, however egg laying occurs from early July to early August. Eggs are deposited on the undersides of leaves along leaf veins or in the leaf axil, singly, or in clusters.

Eggs hatch in about ten days. The newly hatched larvae begin to feed on the leaf underside, causing small, skeletonized areas. Sometime in September the larvae will cease feeding and cover the entrance to the case with silk and fecal pellets.

One parasitic fly, *Nemorilla pyste*, attacks the larval stage of the leaf crumpler and can provide some control of this pest. Adults deposit eggs on the head or thorax of the caterpillar during June and July. The fly larva feeds internally on its host, emerges from the leaf crumpler larva, and pupates within the crumpler case. Although the fly may lay more than one egg on a leaf crumpler larva, only one larval parasite will survive.

Chemical controls are aimed at the larval stage of the pest with two windows available for targeting. Spring applications should be made when the larvae become active again. This would correspond with *Magnolia X soulangiana* being in pink bud to early bloom. Treatments can be made up until *Spirea X vanhouttei* begins to bloom. The second opportunity for control is when newly hatched larvae appear. This would correspond to when *Hydrangea paniculata* 'Grandiflora' is beginning to bloom.

**Ash plant bug** — Nymphs were found during our inspections in Dane, Kenosha and Walworth Cos. Nymph and adult feeding causes stippling on the leaves. During warm weather and high plant bug populations damage similar to hopper burn occurs, with leaves turning brown and falling off. The insect overwinters as eggs in the bark of the ash; there are 2 generations per year. First treatments should be made when the plant bugs are still

vulnerable nymphs. Saucer magnolia finishing bloom, ash breaking bud, and redbud beginning bloom are indications of the best time to treat for ash plant bug.

**Common stalk borer**- Bores were noted in nine-bark shoots in Columbia Co. (UWEX)

**Birch leafminer** — We are continuing to find this leafminer on birch in Dane, Dodge, and Chippewa Cos. during inspections. The damage will become more noticeable in a few weeks as the mines enlarge. Brown patches grow larger as the leafminer develops inside the leaf. By the time you see the damage it is too late to control that generation. Treatment in the early stages may prevent injury. Only systemic insecticides work to control this pest.

**Euonymus caterpillar or Apple ermine moth?** – There has been at least one report by UW-Extension of euonymus caterpillars feeding on cherry and apple. Nearby there were defoliated euonymus bushes; it is thought that the hungry caterpillars may have migrated to the nearby fruit trees. Euonymus caterpillar and apple ermine moth look very much alike in the larval and adult stages. These two moths are very closely related but feed on different hosts. The euonymus caterpillar has been in the state for some time and feeds on various species of euonymus such as burning bush (European spindle tree). Apple ermine moth does not occur in the state and feeds on apple and crabapple. The apple ermine moth was intercepted on crabapple nursery stock imported from the West Coast several years ago, but that introduction was eradicated. The apple ermine moth occurs only in parts of Oregon and Washington State in the U.S. Identification of these two species require an expert looking at the adult moths. Larvae cannot be positively identified. If you find larvae or adults that look like either euonymus caterpillar or apple ermine moth, and they are feeding on apple or crabapple, please contact your local extension agent, or DATCP at 608-224-4573.

**Honeylocust plant bug** — Grower inspections in Kenosha and Walworth Cos revealed honeylocust plant bug injury. Damage is light at this point but may increase as the growing season progresses. There is one generation per year and the eggs are laid on 2 or 3-year-old twigs just under the bark. When the eggs hatch they climb towards the growing points and begin to feed on newly expanding leaves. Leaves suffer the most injury at this time. This feeding causes smaller leaf size, curled or stunted leaves and, under high populations, early leaf drop.

**Jack pine budworm** - Jack pine budworm larvae are beginning to pupate throughout the west central region. (DNR)

**Japanese beetle**- The first adults of the year were reported in Racine Co. (UWEX)

**Pine chafer** – These pests were noted flying in Adams Co. (DNR)

**Pine spittlebug** — This common insect was found during dealer and grower inspection in Dodge, Door, Washburn,





Jack pine  
budworm  
pupa

Todd Lanigan, DNR

Walworth and Waukesha Cos. in trace to light amounts. Generally this insect doesn't significantly injure the host trees unless populations are very high. Affected trees include Scotch, red and white pine. Injury consists of stunted growth, needle discoloration and, rarely, death of branches or the entire tree. The insect sits inside a frothy mass as a nymph and is dark-brown.



Jack Pine Budworm Larva

Todd Lanigan, WI DNR

**Spring rose beetle-** This pest was reported on *Rosa rugosa* in Rock Co. (UWEX)

**Wool sower gall and oak apple gall-** Gall causing insects seem to know no better home than oak. We are currently seeing wool sower galls (which look like cotton candy) on twigs of oaks throughout west central Wisconsin. The galls are made by wasps, as the wasp larvae develop inside seed-like structures in the gall. We have also noted oak apple galls, large round brown galls formed on oak leaves. These galls are also made by wasps as the larvae develop inside the gall. (DNR)

**Anthracnose** – Evidence of this disease is still being found during dealer inspections in Barron, Chippewa and Taylor Cos. in light to moderate amounts. This fungal pathogen is affecting many different plants including apple, ash, crabapple and maple. Injury varies from light to heavy; earlier in the season it can be mistaken for frost damage. Black, irregular dead areas on the leaf are characteristic symptoms of this disease. Prolonged cool, wet weather, especially during bud break and early leaf expansion favors disease development. Chemical control with a fungicide to prevent infection is rarely used and once infection has occurred no chemical control is effective. Several things can be done to lessen infection rate including increasing air circulation around the host plants, crop rotation in a nursery setting and leaf clean up and sanitation. Generally this disease does little lasting damage to the trees. Trees that have heavy amounts of

anthracnose in a season should be watered when drought occurs and fertilized if needed during the growing season. See Extension Bulletin <http://www.uwex.edu/ces/wihort/gardenfacts/X1001A.pdf> for more information.



Wool sower gall on oak

Todd Lanigan, WI DNR

**Apple scab** — This common problem was found at dealer and growers throughout the state. It occurred in light to moderate levelson host material of the *Malus* genus during inspections in Chippewa, Dane, Kenosha, Marathon and Walworth Cos. This season has been ideal for the rapid growth and infection of this pathogen. We are expecting to see many crabapples and apples heavily infected by this pathogen. This fungal pathogen causes early leaf drop in



Oak apple gall

Todd Lanigan, WI DNR

both apples and crabapples that are not resistant or have not been treated. It begins as a dull, grayish, fuzzy patch on the upper surface of the leaf and develops a yellow halo with the leaves eventually dropping. It is important to



Wool sower gall on  
oak (cross section)

Todd Lanigan, WI DNR



clean up infected leaves, especially in the fall. This reduces the amount of overwintering spores, which will infect the tree next spring. There are many resistant crabapple and apple varieties on the market and they may be a better selection for people who are having trouble with this disease. Fungicides may reduce or prevent the disease, if treatments are started early in the season and repeated throughout the season. See extension publication <http://www.uwex.edu/ces/wihort/gardenfacts/X1007.pdf> for more information.

**Leaf Scorch** — Drought and high temperatures (90° or higher) encourage leaf scorch. Plants with small root system are most susceptible. It is important to keep plants watered and the roots cool during the growing season to reduce leaf scorch in potted and balled and burlap trees and shrubs. When watering try to keep the foliage dry and water the root and soil area of the plant. This is especially important in conifers. In conifers avoid watering the foliage of the plants during the day. Doing so can cause stomata to close, affect the transpiration rate of the plant and cause needle drop, especially in junipers. In conifers it may take one to four weeks for symptoms of drought stress or scorch to appear.

**Dutch elm disease** - Elm trees are reported wilting and dying in westcentral Wisconsin. (DNR)

**Eastern gall rust** - Telia spores are now being produced on the underside of pin oak leaves. These spores infect susceptible pines (jack and Scotch). (DNR)

**Oak wilt** – This deadly fungal pathogen is causing wilting and mortality throughout westcentral Wisconsin. Trees in the red oak group are affected. (DNR)

**Winter injury**—It seems late in the season to talk about winter injury, but we are still finding it during our inspections. It is time to remove plants that are not showing life. Plants that have dieback should be pruned to remove dead parts. Some of our winter injury came late this spring when cold temperatures followed early warm weather. We also saw winter burn occur on evergreens because of that early warm weather. It is important to care for plants that have had dieback, pruning them properly to encourage a fast recovery. Any plants that are more than 75% dead should be removed from sale.

## State/Federal Programs

**Gypsy moth pheromone flake treatments**- Starting around June 30, yellow spray planes contracted by the US Forest Service in a joint project with the Wisconsin Department of Agriculture, Trade and Consumer Protection, will apply a pheromone (fair-a-mone) flake or mating disrupter, to 15 sites in 10 counties.

The flakes are extremely thin, tiny pieces of green plastic that are about 1/8 by 1/16 inches. The flakes are applied to the tree leaves at a very low rate so they are not easily detected. The flakes that we apply to the tree leaves emit the same scent that female gypsy moths use to attract males. This confuses the males and makes it more difficult

for them to find a mate. Next spring, there should be fewer gypsy moth caterpillars.

We mix the flakes with a sticking agent that is similar to white school glue so the flakes adhere to the tree leaves. We use airplanes to apply the flakes at a rate of 1-2 flakes per square foot of tree canopy. The flakes don't harm the gypsy moth in any way, it just makes it more difficult if not impossible for a male to find a female gypsy moth.

Counties to be treated are listed in the proposed spray order: Rock, Dane, Sauk, Adams, Clark, Taylor, Price, Lincoln, Bayfield and Iron Co. Be aware that the schedule can change because of weather, mechanical or logistical problems. Maps of the spray sites are available on the department's gypsy moth web site at <http://www.datcp.state.wi.us>, keyword gypsy moth. Call the toll-free Gypsy Moth Hotline at 1-800-642-6684 to stay up-to-date on spraying activities.

**Gypsy moth trapping program**- Trap setting continues this week. Trappers have set 20,313 traps or approximately 74% of the expected total. Thirty-three counties are now complete and the majority of counties will be done by July 4th. There may still be a few areas that will be completed the following week but all traps will be up by July 11th. Phenology charts indicate moth flight in southern Wisconsin to occur around July 18-19. Trappers will start spot checking their traps the week of July 14th to see when actual moth flight begins. Once moth flight starts, trappers will spend three weeks checking all their traps and start reporting moth catches.

## Odds -n- Ends

**Friendly flies, *Sarcophaga aldrichi***- These flies, nicknamed friendly flies because they are difficult to "shoo" away, are being reported as a nuisance in northern counties. These flies look similar to house flies, but are larger and slightly more hairy. They don't bite but can be annoying nevertheless. This fly is the main parasite of forest tent caterpillar, and can significantly reduce caterpillar populations during years of outbreaks. The adult fly emerges in mid-June and lives until mid-July. Females lay live maggots on the pupal cases of forest tent caterpillars. The maggot burrows in and feeds on the developing pupa. Large populations of friendly flies this year mean fewer forest tent caterpillars next year. Like forest tent caterpillar, friendly flies are native to the lake states. For more information see [http://www.dnr.state.mn.us/treecare/forest\\_health/fic/friendlyfly.html](http://www.dnr.state.mn.us/treecare/forest_health/fic/friendlyfly.html) (UWEX in part)

## Calendar of Events

### Rhineland Potato Grower Field Day

July 11, 2003. UW Rhineland Research Station  
(715) 369-0619

### WI Arborist Assoc. summer field day.

Wednesday, July 16th, in Janesville at the Rotary Gardens.  
9 AM to 3:30 PM

**Wisconsin Fresh Market****Vegetable Growers and Berry Growers Field Day**

Country Bumpkin Farm in Wisconsin Dells

July 18, 2003. 9:00 am - 3:00 pm

Contact:

Karen Delahaut 608-262-6429

or email [kadelaha@facstaff.wisc.edu](mailto:kadelaha@facstaff.wisc.edu)

**2003 Wisconsin Honey Producers Association Summer Meeting**

July 19, 2003 at the K of C Hall from 9:00 AM - 3:00 PM  
in Berlin, WI.

**Central WI Potato Field Day**

July 22, 2003. Hancock Research Station

8:30-noon, lunch at noon

(715) 249-5961

**Northeast Wisconsin Potato Field Day**

July 23, 2003. Langlade County Airport

1:00 pm

Contact: Ken Williams, UWEX (715) 627-6236

**American Phytopathological Society Annual Meeting**

Aug 9-13, 2003. Charlotte, NC

[www.apsnet.org/meetings/2003/](http://www.apsnet.org/meetings/2003/)

**The WI Nursery Assoc. Summer Field Day**

Wednesday, August 13th, at Silver Creek Nursery, in  
Manitowoc, WI. It is an all day event. Contact Brian

Swingle at 414-529-4705 or email

[bswingle@toriiphillips.com](mailto:bswingle@toriiphillips.com)

**WI Christmas Tree****Producers Association Summer Convention**

Aug. 15-16, 2003

Menominee Casino-Bingo-Hotel, Kesheena

Tour Hanauer's Tree Farms, Shawano

Contact: Cheryl Nicholson, Executive Secretary

[www.christmastrees-wi.org](http://www.christmastrees-wi.org)

Phone (608)745-5802

**West Madison Horticultural Field Day**

featuring a Mexican Garden

August 16, 2003.

Contact: Judy Reith-Rozelle at West Madison 608-262-  
2257

**Honey Sunday**

September 19, 2003 at the Mosquito Hill Nature Center,  
New London

# API LIFE VAR For Suppression of Varroa mite

WISCONSIN DEPARTMENT OF AGRICULTURE, TRADE & CONSUMER PROTECTION | APIARY PROGRAM

*The U.S. Environmental Protection Agency has approved emergency use of API LIFE VAR for suppression of varroa mites in honey bee hives in Wisconsin until Dec. 31, 2003. This is in response to resistance that varroa mites have developed to fluvalinate (Apistan®) and coumaphos (CheckMite) in some colonies. If you would like more information about resistant mites please contact the Apiary Program at (608) 266-7132.*

*To control varroa mites and to protect your bees and honey, it is vital that you follow these instructions. Read the label directions before applying this product.*

## USING API LIFE VAR TABLETS

Use only in brood chambers.

Use only in late summer or fall when bees are not producing surplus honey. Remove Api Life VAR tablets from hive at least 5 months (150 days) prior to harvesting the honey to prevent contamination of the honey.

Use when average daily temperatures are between 59°F and 69°F

### TREATMENT OF TWO STORY HIVE (bees covering 8- 20 full-size Langstroth frames or similar)

Break one tablet into 2 to 3 equal pieces.

To prevent the bees from gnawing the tablet either enclose each piece in an envelope of screen wire (8 mesh/inch) or place the uncovered pieces above a sheet of metal screen that prevents bees from contacting it. Place the pieces of API LIFE VAR on the four corners of the brood nest.

Don't place pieces directly above the middle of the brood nest.

After 7-10 days, replace with a fresh tablet broken into pieces as above.

Repeat procedure again, 7-10 days later. Leave last tablet for 12 days, remove residuals from colony. Three applications total.

**NOTE:** ✓ Use of API LIFE VAR is most effective when less sealed brood is present. ✓ Do not use API LIFE VAR at temperatures above 90°F. ✓ Use of API LIFE VAR at average daily temperatures below 54°F may result in less control of Varroa mite.

**HANDLING** ✓ Wear water proof gloves when handling the tablets. See label for more instructions on protective wear.

**API LIFE VAR TABLETS** ✓ Store in original containers in cool, dry, isolated, well-ventilated area away from heat, sparks, and open flame. API LIFE VAR is not affected by freezing, so it may be stored in unheated areas.

✓ Do not eat, drink, or smoke in areas of use or storage.

✓ Do not store in houses or other areas where vapors could accumulate.

**DISPOSING OF API LIFE VAR TABLETS** ✓ Do not reuse empty pouch or tablets.

✓ Wrap left-over tablets and packaging in several layers of newspaper and dispose with your trash.

**Protect your bees and the beekeeping industry! Always follow label directions carefully. The Wisconsin Department of Agriculture, Trade and Consumer Protection will closely monitor use of API LIFE VAR and enforce regulations governing their use.**

Visit our web site at: <http://datcp.state.wi.us/>

6/03



## Apple Insect Trapping Results

County City	Date	STLM	RBLR	CM	OBLR	AM red ball	AM sticky
<b>Crawford Co.</b>							
Gays Mills-W2	6/16-6/23	70	0	1	2	0	0
Gays Mills-E2	6/17-6/25	282	2	6	13		
<b>Richland Co.</b>							
Hill Point	6/21-6/26	50	1	0	0		
	6/1-6/20	25	1	1	0		
Richland Center -W6	6/17-6/25	45	5	0	11		
Richland Center-E6	6/17-6/25	242	4	2	21		
<b>Sauk Co.</b>							
Baraboo	6/17-6/25	105	0	4	4		
<b>Dane Co.</b>							
Deerfield	6/16-6/23	163	0	2	11		
<b>Green Co.</b>							
Brodhead	6/18-6/25	10	0	2	2	0	0
<b>Pierce Co.</b>							
Spring Valley	6/20-6/27	173	0	4	3		0
Beldenville	6/19-6/26	0	0	1	12	0	0
<b>Jackson Co.</b>							
Hixton	6/7-6/23	45	0	1	2	0	0
<b>Fond du Lac Co.</b>							
Rosendale	6/16-6/23	63	21	2	1	0	1
Malone	6/19-6/26	25	0	1	1	0	0
<b>Marquette Co</b>							
Montello	6/15-6/22	480	0	0	12	0	0
<b>Door Co.</b>							
Sturgeon Bay	6/18-6/24	100	4	13	0	0	0
<b>Brown Co.</b>							
Oneida	6/16-6/23	150	5	2	4	0	0
<b>Marinette Co.</b>							
Wausaukee	6/19-6/26	0	0	1	0		
<b>Ozaukee Co.</b>							
Mequon	6/17-6/23	35	0	1.8	8.5		
<b>Waukesha Co.</b>							
Waukesha	6/14-6/20			11			
<b>Racine Co.</b>							
Rochester	6/20-6/27	477	2	4	6	0	0
<b>Sheboygan Co.</b>							
Plymouth	6/19-6/26	91	0	14	15	0	0

STLM--Spotted tentiform leaf miner; RBLR--Redbanded leaf roller;CM--Codling moth;OBLR--Oblique banded leaf roller  
AM--Apple maggot

## Black Light trapping Results

through June 26

Trap Site	European corn borer	Armyworm	Black Cutworm	Variegated Cutworm	Spotted Cutworm	Celery Looper	Forage Looper
<b>South Central</b>							
Arlington	130	12					
Madison	47	3	1				
Mazomanie	101	55	0	0	12	0	0
<b>Central</b>							
Marshfield	44	15	0	0	83	4	0
<b>Northwest</b>							
New Richmond	2						
Cameron	2						



Department of Agriculture,  
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Division of Agricultural Resources Management  
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## Web Site of the Week

National Plant Board

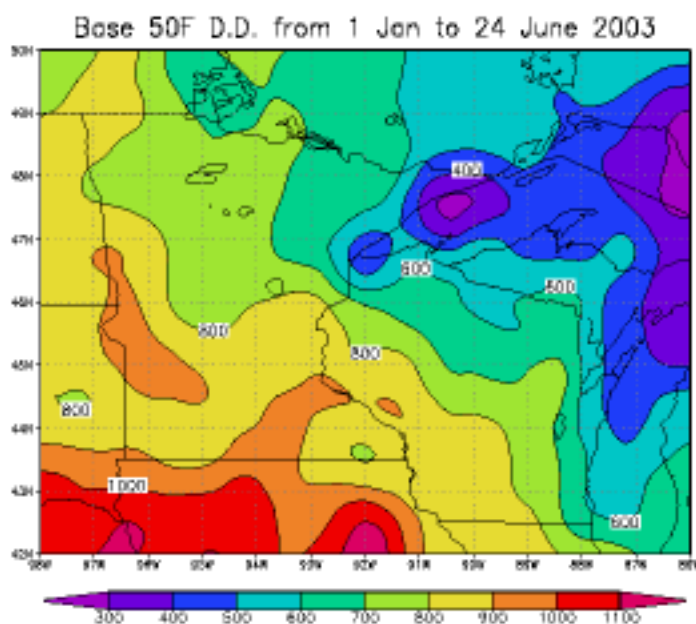
<http://www.aphis.usda.gov/npb/>

The NPB is an organization of the plant pest regulatory agencies of each of the states, whose purposes include “To bring out greater uniformity and efficiency in the promulgation and enforcement of plant quarantines and plant inspection polices and practices in the various states; to act as a national clearing-house for information in plant quarantines and plant inspection polices and procedures; to promote harmony and uniformity in the field of plant pest regulation.”

## Quote of the Week

My apple trees will never get across  
And eat the cones under his pines, I tell him.  
He only says, “Good fences make good neighbors.”

from ‘Mending Wall’, Robert Frost (1874-1963)



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