

Wisconsin Department of Agriculture, Trade & Consumer Protection

Wisconsin Pest Bulletin

PO Box 8911 • Madison, WI 53718 • Phone 1-800-462-2803 • Fax: 608-224-4656

Your weekly source for crop pest news, first alerts, and growing season conditions for Wisconsin



Foreword

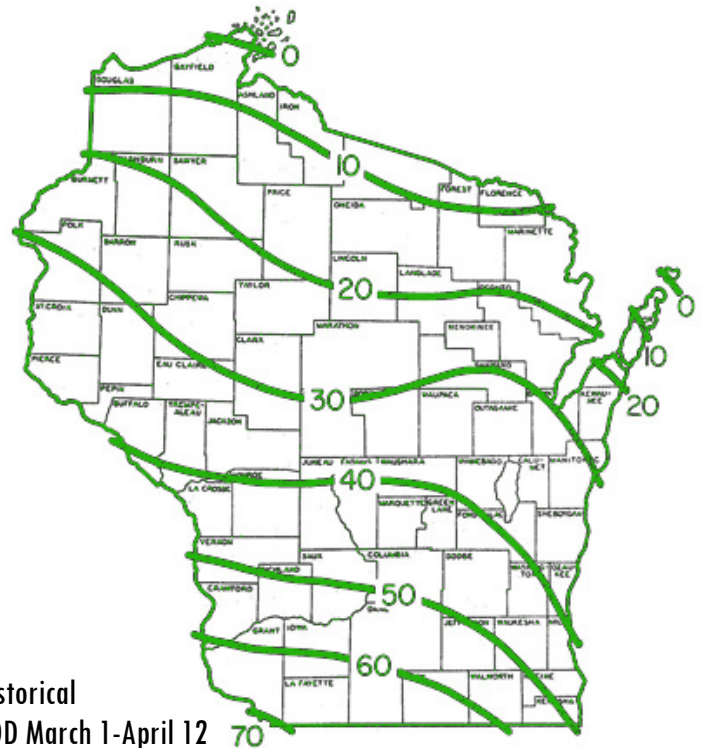
This is the first in a series of bulletins which will be published each Friday during the 2007 growing season. With this issue, the Wisconsin Pest Survey Bulletin begins its 52nd year of service to Wisconsin Agriculture, reaching approximately 2,000 readers. The bulletin will again contain a compilation of timely plant pest information supported by the survey efforts of our entomologists, weed specialists, and plant pathologists. This publication is made possible by the many individuals who contribute information, including county extension specialists, orchardists, vegetable growers, agronomists, horticulturalists, DNR specialists, Agricultural Experiment Station staff, crop consultants and farmers.

Subscribers who access the web version of the bulletin have almost certainly noticed its new look. The transition from paper to pixels has been a bumpy one for us. This latest version is our attempt to strike a balance between progress and the precedent set by State Entomologist E. L. Chambers in 1955 when the first bulletin was issued. One of our objectives when designing the new site was to provide fast web access to weekly pest articles; another was to preserve the purpose and simplicity of the paper publication once delivered to doorsteps statewide. Although the homepage has changed, the content has not. We urge bulletin readers to add the new website, <http://pestbulletin.wi.gov>, to your list of favorites and log on once a week for the latest pest findings and forecasts.

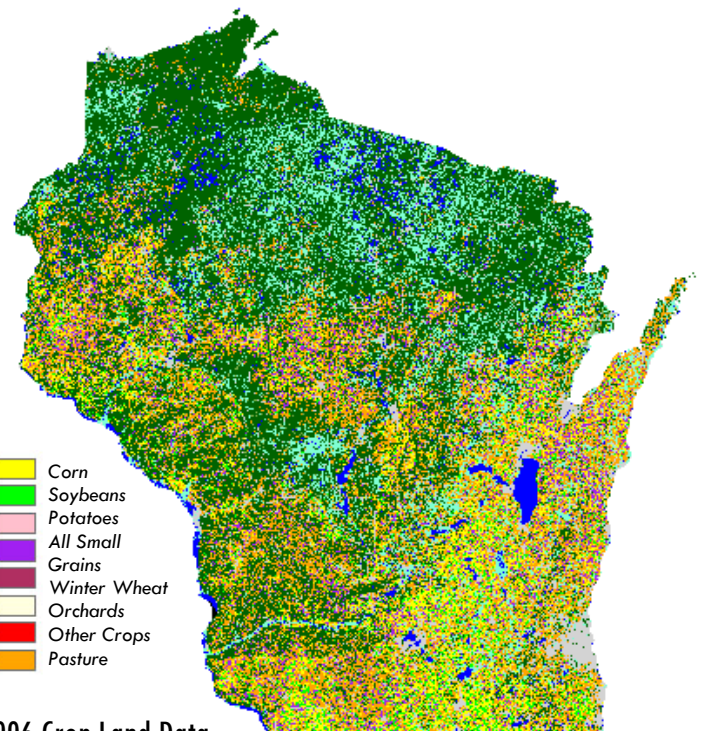
Weather and Pests

An untimely spring snowstorm complete with heavy snow and high winds interrupted plans for early-season field work. Snowfall records were set on April 11 in Madison and Milwaukee where 7.0 and 5.3 inches of snow were received, respectively. After record-highs in the low 80s were reached in late March at various locations around the state, April temperatures plummeted into the low 30s by day and the 20s by night. Many farmers waiting for spring to break will have to contend with standing water from snow melt before fields are ready for planting.

Most insect activity has been suspended until the snow recedes. A wide range of spring arthropods are awaiting activation by higher temperatures. Survey efforts during the remainder of this month and a good portion of May should reflect the overwintering success of many insects.



Historical
GDD March 1-April 12



2006 Crop Land Data

Alert

Use CAUTION when handling treated seed - Growers planning to use pesticide-treated seed this season are urged to take all necessary precautions to prevent contamination of grain destined for animal or human food. Seed treated with an insecticide or fungicide protects seedlings from insects and disease threats, but can be harmful to animals or farmers' bank accounts if mishandled. According to DATCP Seed Specialist Greg Helmbrecht, "even one pesticide treated seed can be enough to contaminate an entire truck load or storage bin and cause the load to be rejected."

Clean-up efforts after hauling treated seed are critical to prevent contamination at harvest. Check gravity boxes, truck beds, wagons and all equipment that handled treated seed, particularly if that piece of equipment will be used to haul harvested grain, animal feed or forage. A simple visual inspection of the wagons or other farm equipment is not enough. Any piece of equipment that contacts treated seed must be thoroughly cleaned by pressure washing and then thoroughly inspected. If pressure washing isn't an option, avoid using that piece of equipment to handle untreated seed or grain later on.

Farmers should also take these steps to keep pesticide-treated seed separate from untreated seed and grain and to prevent exposure to animals and animal feed: 1) Avoid leaving treated seed out in the open where it can be eaten by birds or other animals, 2) Store any unused seed securely and separately away from grain storage areas, and 3) Return unused seed to your seed supplier or to a sanitary landfill.

Looking Ahead

Black cutworm - Overwintered moths from source populations as far away as southern Texas and eastern Mexico embarked on an annual northward migration into Wisconsin last month. The first moths of 2007 arrived on March 29, slightly more than week earlier than in 2006. DACTP survey specialists are watching for a concentrated pheromone trap catch of 8-9 moths in a 1-2 night period. This event is used to predict when the progeny of the migratory cutworm moths have reached the 4th instar, the developmental stage at which they become capable of cutting corn seedlings. Captures at 48 trapping sites ranged from 0- 2 moths between March 29 and April 2, but no activity has been registered since then.

Household pests - Beginning during the last week of March, homeowners in various localities began inquiring about western conifer seed bugs (*Leptoglossus occidentalis*), boxelder bugs (*Leptocoris trivittatus*), and multicolored Asian ladybeetles (*Harmonia axyridis*) they have observed inside their dwellings. Early spring sightings of these nuisance insects are common as the overwintered adults resume activity on warm spring days (>50°F). Expect to see survivors over the next few weeks

as they move outdoors for the summer. Bear in mind these insects have not fed or reproduced indoors during the winter months. Besides being an annoyance, they pose no threat to homeowners.

Seventeen-year cicada - The year 1990 was marked by several historic events. East and West Germany were reunited, the Hubble space telescope was launched, Nelson Mandela was released after 27 years in prison, smoking was banned on all domestic flights, and the award for *Record of the Year* was presented to Bette Midler for "Wind Beneath My Wings" (a momentary lapse in our collective judgment). More importantly, in 1990 periodical cicadas of the genus *Magicicada* mated and laid a brood of eggs that has, until this very summer, lived two feet underground as nymphs feeding on the sap of tree roots. Seventeen years have passed since Bette sang her way to the top and the eggs of *Magicicada* Brood XIII were laid. In a matter of weeks, the plump, subterranean nymphs will claw their way to the soil surface and transform into clear-winged crooners whose sole purpose is to mate, reproduce, and die.



Seventeen-year cicada *Magicicada septendecim*

www2.jsonline.com

In addition to southern Wisconsin, cicadas of Brood XIII are expected to emerge in parts of Iowa, Illinois, Indiana and Michigan. During the 2007 event, densities of thousands of cicadas per acre could emerge and cause physical damage to small trees or shrubs (from feeding and egg laying). Periodical cicada densities exceeding one million per acre have been documented.

Orchard and nursery owners with young trees or shrubs should take measures to prevent damage. The simplest way to protect small trees and shrubs is to cover them with screening or cheesecloth when the cicadas begin to emerge. Plants should be kept covered for at least four weeks or until most of the cicadas have died off. Pesticide applications are impractical given the sheer number of emerging cicadas. Besides, this once-every-seventeen-years event aerates the soil, provides food to thousands of predators, and acts as a natural pruning mechanism. Look for week to week coverage of the cicada extravaganza in late May and June issues of the bulletin.



Generalized distribution of *Magicicada Brood XIII*

Growing Degree Days

Growing degree days - When the concept of degree days originated, researchers more accurately referred to the daily number of heat units as "day degrees." Sometime during the 1960s or 70s the order of the words was changed, but the basic concept remains the same. A degree day, or heat unit, is a measure of heat above a threshold for one day. Growing degree accumulation refers to growing degree days or heat units above a threshold accumulated over consecutive days.

Plants and insects begin development above a particular threshold temperature. Should that threshold temperature be 50°F, then one degree above 50°F would be one heat unit. If the daily mean (average) temperature was 51°F, one degree day of heat unit accumulation would be charted. Adding degree days together for each day gives the total effective degree days. As the degree days build up, a point is reached where a certain phase of insect development occurs. For instance, the black cutworm moth begins laying eggs at about 200 degree days and the European corn borer begins pupation at 246 degree days, and again in summer at 1,446 degree days.

Growing degree days can be calculated using a variety of methods. The most common method is: (daily max temp + daily min temp)/2 - base temp = GDD. For example, if the maximum temperature on April 14 is 66°F, the minimum is 54°F, and a base temperature of 50°F is used, the calculation would look like: $(66 + 54)/2 - 50 = 10$ GDD. A total of 10 degree days would be recorded for April 14.

In our GDD table, we list "modified" growing degree days (base 50°F, upper limit 86°F). The data is modified in that if the daily minimum temperature is less than 50°F it is reset to 50°F to avoid negative growing degree days. If the maximum temperature exceeds 86°F it is reset to 86°F because there is generally no growth benefit from temperatures above that point.

Surprisingly few insects have their life histories plotted out on this basis and the method itself has certain limitations.

However, a number of reliable models particular to plant pests of concern in Wisconsin have been developed, and these will be included in future issues of the bulletin.

Base temperatures for various crops and insects:

39°F	seed corn maggot
40°F	onion maggot, wheat, barley, rye, oats, lettuce, asparagus
43°F	cabbage maggot
44°F	corn rootworm
45°F	potato, sunflower
48°F	alfalfa weevil
50°F	black cutworm, European corn borer, codling moth, spotted tentiform leafminer, sweet corn, corn, sorghum, rice, soybeans, tomato, honeylocust plant bug, common asparagus beetle, plum curculio
52°F	green cloverworm

Corn

Corn flea beetle and Stewart's wilt risk for 2007 - The trend toward milder winters has led to increased winter survival of corn flea beetles and an increased incidence of Stewart's wilt in Wisconsin. After a 56-year absence from the state, an isolated case of Stewart's wilt was detected in a Walworth Co. corn field in 1999. Seed field inspections in 2000 found Stewart's wilt in 10 counties of the state, and in 2001 no disease was detected. In the years 2002-2004, only one or two infected fields were recorded each year. Stewart's wilt was detected in three Grant Co. seed production fields in 2006. The return of this disease to Wisconsin after more than a half a century indicates the geographic range of overwintering corn flea beetles and Stewart's wilt has expanded northward.

The risk of Stewart's wilt in Wisconsin for the 2007 growing season was assessed using two models: the Stevens-Boewe Index and the Iowa State Model. The Stevens-Boewe Index predicts the severity of the leaf blight stage of Stewart's wilt, whereas the Iowa State Model predicts the prevalence, or occurrence of the disease. Both models integrate average monthly temperatures for the months of December, January and February to predict corn flea beetle survival and the probable occurrence of Stewart's wilt during the seedling and late leaf stages of corn development.

Based on the Iowa State Model, the risk of the occurrence of Stewart's wilt is high in one location in the southeast (Kenosha), moderate to high in the other southeastern locations (Milwaukee and Racine), moderate to high in three of four south central locations (Afton, Brodhead, and Watertown), moderate to high in one southwestern location (Dodgeville), and moderate to high in one east central location (Manitowoc). A low to moderate risk is predicted for all other locations listed.

The Stevens-Boewe Index, which predicts the severity of the leaf blight stage of Stewart's wilt in late summer, indicates a moderate level of risk near Kenosha and low level or slight risk at all other locations. See the table on page 9 for more details.

Black cutworm - Strong southerly winds on March 25 and 26 are credited with the delivery of black cutworm moths from reservoirs in the Gulf States. Captures of moths between March 29 and April 2 in Green, Grant, Iowa and Lafayette counties mark the earliest arrival of this migratory corn pest into southwestern Wisconsin in the last seven years of monitoring. Flight activity of black cutworm is being tracked using a network of 48 pheromone-baited delta traps established along major roadways in southwestern Wisconsin. And for the second year in a row, cooperators Bill Veith of Seneca Foods and Monroe County Extension Agent Bill Halfman will be supplementing trapping efforts with counts from Janesville and Sparta. With a network of 53 traps in all, the 2007 monitoring effort is larger than ever before and should help us to provide an accurate forecast when corn is most susceptible to cutting by black cutworm larvae. A table showing first moth captures since 2001 is provided below.

Year	Date of first BCW capture
2001	April 21
2002	April 17
2003	April 22
2004	April 19
2005	April 12
2006	April 06
2007	March 29



Black cutworm pheromone trap sites 2007

Weeds

Early spring weeds - Once the snow melts and spring temperatures return to the 50s and 60s over the weekend, early-season weeds will begin breaking winter dormancy and emerging as annual seedlings or perennial and biennial plants. As early as March 26-30, green dandelion rosettes were observed in thawing fields. Among the earliest emerging weed species found in row crops are horseweed (*Conyza canadensis*), white cockle (*Silene alba*), field pennycress (*Thlaspi arvense*) and shepherd's purse (*Capsella bursa-pastoris*). Emergence of these species usually extends over a period of two to three weeks.



White cockle seedling

www.oardc.ohio-state.edu

Most early-season weed management programs emphasize control of emerging plants as opposed to preventing new seed entries into the seedbank. Although seed shed is not a hot topic at this time of year, weed seeds can easily be disseminated during early season farming activities. In fact, weed seeds are readily scattered by farm equipment (i.e. the planter, tillage equipment etc.) and when manure is spread. One way to prevent movement of seeds between fields is to clean equipment between fields or at least when moving from a previously weedy field to a non-weedy field.

Many seeds are adapted to withstand the digestive system of cattle and are spread onto fields in manure applications. Seeds deposited in fields with manure have a built-in nutrient supply. If the application is made early enough and temperatures remain warm, as is often the case, these weeds will get a significant head start on development relative to the field crops which emerge weeks later.

While it is neither an easy nor clean task to determine the abundance of weed seeds present in spread manure, growers can get a rough idea by keeping tabs on what goes into their animals. Seed survival is dependent on the attributes of the seed, the type of animal ingesting the seed, and the length of manure storage. For example, smaller, hard-coated seeds fare better through the digestive systems of animals. Fewer seeds are found in poultry manure because many are destroyed in the

gizzard. Finally, manure that is stored longer at higher temperatures typically contains fewer viable seeds. For growers who observe intermittent or evenly spaced patches of weeds that appear to follow equipment routes through a field, manure may be the culprit.



Horseweed

Bob Hartzler, Iowa State University

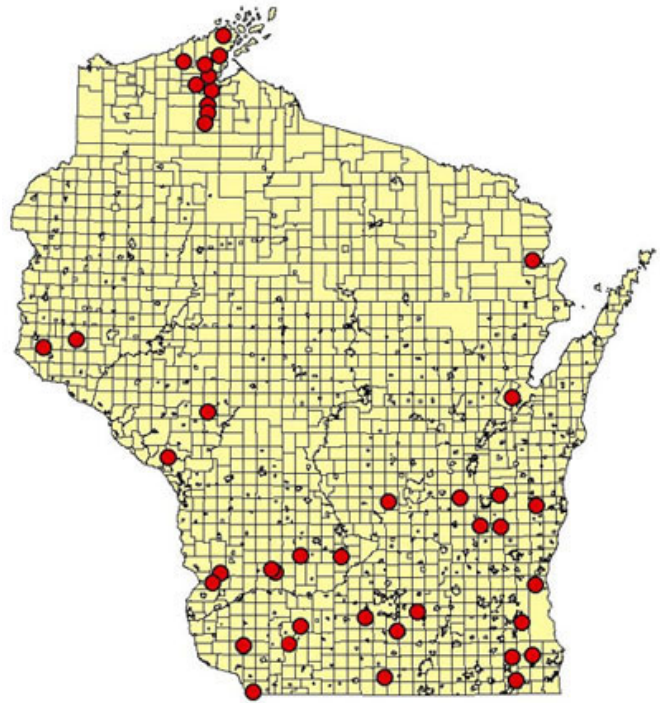
Fruit

Apple insect trapping network - The DATCP apple insect trapping network is Integrated Pest Management (IPM) in action. As part of the statewide network, orchardists from Burlington to Bayfield monitor and report the seasonal activity of five of the most injurious pests to apples in Wisconsin, including Codling Moth (CM), Redbanded Leafroller (RBLR), Obliquebanded Leafroller (OBLR), Spotted Tentiform Leafminer (STLM), and Apple Maggot (AM). From April through August, cooperating orchards record trap counts and supply weekly data on the appearance, abundance, and occasional outbreaks of damaging apple insects. The pheromone trap counts provided by network cooperators may be used to time sprays, avoid unnecessary pesticide applications, make better informed management decisions, and improve yields and profits. In addition, insect traps can reveal pest hot spots, or areas where spot treatment may be more effective than treating every tree.

Interpreting pheromone trap counts can be complicated. In the case of STLM, high trap counts of sometimes thousands of moths per week do not always indicate the level of infestation. Instead, moth counts are a measure of relative abundance, and should be used to time leaf sampling. The damaging stages of STLM are the larval sap feeders and tissue feeders which feed on the lower and upper surfaces of leaves, respectively. The number of STLM moths per trap suggests when to begin scouting for the damaging sap feeder mines on the undersides of apple leaves, about one week after a peak flight has been registered.

Beginners in the apple insect network learn to recognize the five target pests in no time at all. Learning to interpret trap counts comes with time, and that's where the

Wisconsin Pest Bulletin can help. Each week counts from the 40 cooperating orchards will be posted in a table format. Scan through the columns for each pest to get an idea of number of moths flying in your area. Follow weekly articles under the FRUIT heading for trapping instructions and hints at how to interpret the weekly numbers. Pheromone trap counts are published each week in the Wisconsin Pest Bulletin beginning April 13. For more information on the DATCP Apple Insect Trapping Network, please call 1-866-440-7523 or email krista.hamilton@wisconsin.gov.



Apple insect trapping network participants 2007

Spotted tentiform leafminer - Pheromone traps used to monitor this orchard pest should now be in place in the southern two-thirds of the state. Emergence of the first flight of moths is expected to begin in the week ahead once temperatures increase into the 50s and 60s, as predicted. Egg laying is projected to occur around 75-127 GDD (base 50°F). Once moths start to appear in traps, the earliest event to watch for is the first peak capture. This event comes quickly, once 150 GDD have been reached. A peak capture of moths suggests a majority of the population has emerged, thus mating and egg laying is most concentrated. To determine the need for early-season control of STLM, plan to scout for sapfeeder mines on the undersides of apple leaves about one week after the first peak flight has occurred.

Redbanded leafroller - Insects that overwinter in the pupal stage, such as the redbanded leafroller and STLM, emerge from winter ready to transform into adults once spring temperatures exceed a certain threshold. That threshold was surpassed late last month and a few early adults took flight in southwestern Wisconsin orchards. Captures of 0-4 moths were reported in southern orchard for the period of April 5-12. Like STLM, activity of this insect is expected to

accelerate next week. Follow trap counts and future bulletin articles closely for RBLR scouting and control recommendations.

INSECT EVENT	GDD base 50°F	
	STLM	RBLR
1st moth occurs	22-70	25-78
1st eggs occur	75-127	82-162
1st peak flight	150	106-160
1st larvae	209-231	167-228
1st leaf mines	329-403	NA
2nd flight begins	539-750	780-937

Vegetables

Cabbage looper trapping network - The need for a cabbage looper trapping network was realized in a 2004 meeting between growers, processors, and technical experts who identified the cabbage looper, *Trichoplusia ni*, as a key pest of concern to the Wisconsin cabbage industry. This group saw the ecological and economic benefits to be gained from relatively simple monitoring efforts using pheromone-baited traps. Based on trap counts, cabbage growers could determine precisely when to scout for first and second generation caterpillars, a critical step toward making informed, effective management decisions. After a year off from trapping due to personnel changes, the network is back up and running with several new cooperators.

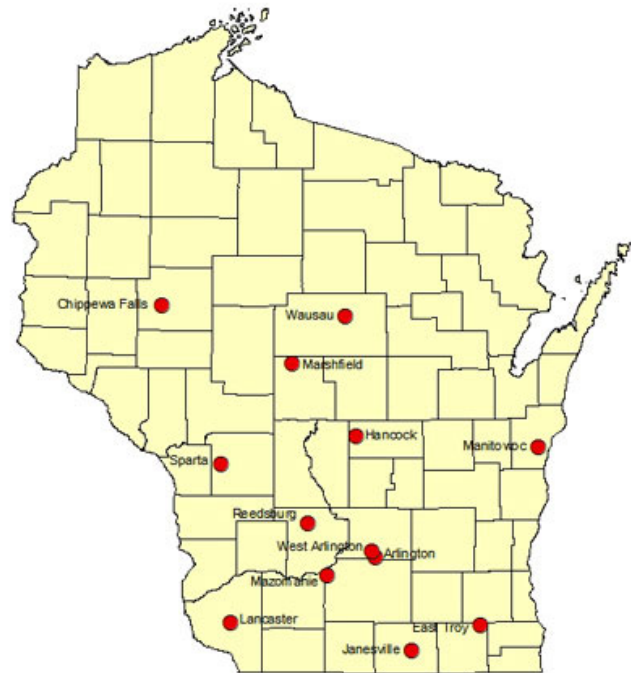
Cabbage growers interested in monitoring the arrival and flight activity of cabbage looper moths are encouraged to sign up for the DATCP cabbage looper trapping network. The Pest Survey and Control Program will supply all of the trapping supplies needed to get started, including pheromone lures and Scentry mesh traps, at no cost to volunteers. In return, cooperators will be required to send in moth counts once a week, generally each Thursday. Reporting is easy and can be done with a simple email to Clarissa Hammond, cabbage looper trapping coordinator, at clarissa.hammond@wisconsin.gov, or with a quick call to the Pest Survey Hotline 1-866-440-7523. Trap counts from around the state will be posted in Friday issues of the Wisconsin Pest Bulletin. If you would like to participate or would like more information, please contact Clarissa Hammond directly at (608)224-4544 or email the address above.

Black Light Trapping

Black light traps - Black light traps are an integral tool in any effective pest monitoring program. The UV fluorescent bulb component of the trap attracts a wide range of night-flying moths, and may be used to monitor the abundance and seasonal occurrence of several major agricultural pest insects, such as European corn borer, armyworm, corn earworm, and various cutworms. Fluctuations in the number of moths caught in black light traps may indicate

when subsequent infestations are likely to develop in susceptible crops. Black light traps register the start, peak and end of moth flights, and suggest when the damaging larval stage of the pest is active. In the case of the European corn borer, early June moth captures signal when it's time to begin scouting for the first generation larvae. A second sharp increase in moth counts in late July suggests the second generation is active. In addition, trap counts may be an indicator of relative abundance of certain nocturnal species, and when outbreaks or damaging infestations could occur.

The DATCP Pest Survey and Control specialists, along with a network of valuable cooperators, have maintained a network of black light traps throughout the state for many years. Weekly black light trap counts and analyses will be posted in issues of the Wisconsin Pest Bulletin beginning on May Friday, May 3rd.



Black light trapping network participants 2007

Nursery, Forest & Landscape

History of Wisconsin's Nursery Program

Wisconsin's Nursery Program has a rich history dating back to 1899, when the Wisconsin state legislature created the Office of State Orchard and Nursery Inspector. This position was established to monitor San Jose scale, a destructive orchard and nursery pest introduced from China into California in 1870. As early as 1911, the legislature required all nursery growers and dealers obtain certification to sell nursery stock. All plants were to be inspected and found free of injurious pests and diseases. The certification charge to growers was \$5 for less than one acre, \$10 for more than one acre, and \$5 for dealers, nearly \$100 and \$200 in current dollars!

Why does Wisconsin license?

DATCP has been given authority by the legislature to

license nursery growers, dealers and Christmas tree growers. DATCP issues licenses primarily to monitor and manage insects and diseases, and to ensure healthy nursery stock is being sold. Maintaining a listing of all growers and dealers and their suppliers allows for efficient tracking and interception of harmful pests. Other states and countries also require certification of Wisconsin nursery stock as being free of injurious pests.

Who needs a Nursery License?

Anyone selling more than \$250 in nursery stock or Christmas trees annually must be licensed. Nursery stock as defined by state statute (ch. 94.10 Wis. Stats.) means plants and plant parts that can be propagated and grown, excluding seeds, sod, cranberry cuttings, annuals, and evergreen trees grown for eventual harvest and sale as Christmas trees. Christmas tree growers are licensed separately under this statute.

What are the benefits of being licensed?

The goal of the DATCP Nursery Program is to be grower-friendly. In addition to surveying for regulated pests, we hope to serve as a resource for any pest or disease issues you may encounter. Being licensed means receiving regular inspections of nursery stock every one to three years. During the inspection, the inspector will look for regulated insects and diseases and provide a report of general pests and cultural conditions. Inspectors can provide additional information on management of pests and cultural problems upon request.

For growers who wish to ship stock out of Wisconsin, program personnel can assist with compliance with the regulatory requirements of the receiving state/country. Call us well in advance of the planned shipping date (one year before, if possible) to ensure that all regulatory requirements have been met.

How do I get licensed?

To obtain a license application, call the nursery program at 608-224-4574 or download a copy of the license application at:

<http://www.datcp.state.wi.us/arm/environment/plants/nursery-stock/index.jsp>

Types of Licenses

GROWER - A nursery grower is a person who grows any plants (including perennials), which are capable of overwintering in Wisconsin. Growers of annual plants do not need a license. This license is an "umbrella" license that covers the activities of growers, dealers and Christmas tree growers. A person holding a grower's license does not need an additional license to resell stock or grow Christmas trees.

DEALER - A nursery dealer is a person who buys and resells any plants (including perennials), which are capable of overwintering in Wisconsin. This may include garden centers, landscape contractors, perennial installers, tree spaders, or brokers.

CHRISTMAS TREE GROWER - A Christmas tree grower is a person who grows evergreen trees for eventual

harvest and sale as Christmas trees.

How much does a license cost?

License fees are based on gross annual sales for growers and on gross annual purchases of perennial/nursery stock for dealers. If your sales/purchases are less than \$250, a license is not required, but may be obtained by paying the minimum fee. Your annual license fee pays for inspectors and management of the nursery program.

Certification of plant material

Nurseries intending to send stock out of state or out of the country may need certification declaring their stock free of certain insects or diseases (plant health certificates or phytosanitary certificates). Information regarding these certificates may be obtained by calling DATCP at 608-224-4596.

Certification of nursery workers

The Wisconsin Landscape Contractor Association offers certification for Landscape Technicians. The Associated Landscape Contractors of America offers certification for Landscape Professionals aimed at owners and managers. The Wisconsin Nursery Association also offers certification for nursery growers. The Wisconsin Department of Agriculture offers certification in Gypsy Moth Identification. Please contact these organizations for more information.

Other licenses or certification a nursery may need

SEED: if you package any of your own seed. For more information call DATCP 608-224-4596

PESTICIDE DEALER: if you sell restricted use pesticides. For more information call DATCP 608-224-4548

PESTICIDE APPLICATOR: if you apply or your operators apply restricted use pesticides. For more information call DATCP 608-224-4548

Emerald ash borer - Surveyors with the Wisconsin Department of Agriculture, Trade and Consumer Protection have been on the hunt for the emerald ash borer (*Agrilus planipennis*) since the middle of last December. After peeling nearly 1,000 trees in 30 counties, no sign of the deadly ash pest has been found. But many more trees have been girdled and left standing in a continuing effort to monitor a number of high-risk areas of the state for signs of EAB. Those trees will be felled next fall and winter and examined for signs of EAB infestation.

DATCP outreach and education efforts have focused on early detection and prevention messages to targeted groups of individuals (arborists, land conservation employees, gardeners, etc.), and a statewide radio campaign scheduled to begin in late May is under development, to help spread the word about EAB and firewood movement to the general public during the late spring and summer months.

The known locations of EAB continue to grow in the infested Midwest states. Lower Michigan, Illinois, Indiana and Ohio are all under a federal quarantine that forbids the movement of hardwood firewood and ash products out of

those states. In Maryland, officials are working to control an infestation in Prince George's County that officials believed was under control a couple years ago, after an accidental shipment of infested ash nursery stock from Michigan.

If EAB is discovered in Wisconsin this year, steps will be taken to quarantine the infested county and to begin investigating (delimiting) the size and 'age' of the infestation. A management plan will be developed based on delimitation results, with the removal of ash trees in the infested area as only one optional response. If you have questions about EAB or survey efforts in Wisconsin, please call the EAB HOTLINE at 1-800-462-2803.



Scott Neuberg peeling an ash tree

Mick Swarok DATCP

Exotic Pest of the Week

Light brown apple moth - Yet another exotic pest has been detected for the first time in the United States. On March 22, 2007, the USDA's Animal and Plant Health Inspection Service (APHIS) confirmed the presence of Light Brown Apple Moth (LBAM), *Epiphyas postvittana*, from specimens collected in Alameda and Contra Costa counties, California by the California Department of Food and Agriculture (CDFA). LBAM is the latest in a long list of destructive foreign invaders to turn up in the U.S.. Diagnosticians at USDA's Systematic Entomology Laboratory in Washington, D.C. validated the positive samples using morphological testing.

In response to this find, 3,591 pheromone-baited traps have been deployed within a 50-mile radius of the initial detection site, including parts of Alameda, Contra Costa, San Francisco, Marin and Santa Clara counties. Another 1,499 traps have been set in 10 additional California counties. As of April 10, a total of 146 moths have been confirmed as LBAM. In addition to implementing a rigorous detection and delimiting survey, nurseries located within 1.5 miles from any LBAM site are being inspected for the presence of LBAM, and APHIS and CDFA have assembled a technical working group comprised of international experts on LBAM to discuss survey and control strategies.

LBAM is native to Australia and is found in New Zealand, Ireland, the United Kingdom and Hawaii. The host range for LBAM is broad, with more than 250 plant species known to be susceptible to attack. Major domestic hosts of concern are stone fruit (peaches, plums, nectarines and apricots), pip fruit (apples and pears), grapes, cherries and citrus. This pest destroys, stunts or deforms young seedlings, spoils the appearance of ornamental plants, and injures deciduous fruit tree crops, citrus and grapes.

LBAM, if left unchecked, has the potential to cause significant economic losses due to increased production costs and the possible loss of international and domestic markets. However, the impacts can be effectively mitigated through production-level management practices. Several countries such as Chile, South Korea, Peru and South Africa list LBAM as a quarantine pest and may require certification of apples, pears, grapes, citrus, cherry and stone fruits. Canada and Mexico are also considering a similar requirement. State and federal officials are working together to take appropriate regulatory action to prevent the spread of this pest in association with the movement of host commodities.



Light brown apple moth, *Epiphyas postvittana*

www.glaucus.org.uk

Although California's LBAM detection has no immediate consequences for Wisconsin growers, the situation in California points to the importance of vigilance and timely detection of exotic pests. When exotic pests go undetected long enough for a viable population to establish, the range of control and eradication options become increasingly limited. In light of this recent LBAM find, the DATCP Pest Survey and Control Section will call upon its network of 40 volunteer apple insect trappers to place pheromone traps for LBAM from June through September this season. Results of this survey will be published in the final summary issue of the bulletin.

2007 Stewart's wilt forecast based on mean monthly temperatures (Dec-Feb)

Station	Mean Temperature			Risk ¹	3 mo. Mean T	Risk ²
	Dec	Jan	Feb			
Northwest						
Gordon	27.3	19.8	8.2	low to moderate	18.4	slight
Madeline Island	27.3	19.8	8.2	low to moderate	18.4	slight
North Central						
Hurley	23.6	16.0	7.3	low to moderate	15.6	slight
Wausau	26.6	19.4	11.2	low to moderate	19.1	slight
Rhinelanders	23.7	16.5	8.8	low to moderate	16.3	slight
Northeast						
Goodman	25.6	18.4	12.5	low to moderate	18.8	slight
Florence	24.4	17.3	9.3	low to moderate	17.0	slight
Antigo	23.7	17.6	9.0	low to moderate	16.8	slight
West Central						
Eau Claire	28.0	20.2	11.4	low to moderate	19.9	
La Crosse	30.8	22.5	13.8	low to moderate	22.4	slight
Jim Falls	27.6	19.2	11.3	low to moderate	19.4	slight
Central						
Hancock	29.1	21.5	13.1	low to moderate	21.2	slight
Stevens Point	27.0	21.6	11.6	low to moderate	20.1	slight
Marshfield	25.4	19.5	10.6	low to moderate	18.5	slight
East Central						
Appleton	28.3	22.8	13.3	low to moderate	21.5	slight
Green Bay	36.5	23.0	15.3	low to moderate	24.9	slight
Manitowoc	31.7	25.3	16.6	moderate to high	24.5	slight
Southwest						
Dodgeville	29.0	23.5	15.6	moderate to high	22.7	slight
Gays Mills	28.8	22.0	10.4	low to moderate	20.4	slight
Lancaster	28.5	21.1	10.2	low to moderate	19.9	slight
Platteville	28.9	23.0	11.9	low to moderate	21.3	slight
South Central						
Afton	29.5	25.2	13.8	moderate to high	22.8	slight
Brodhead	29.0	24.5	12.7	moderate to high	22.1	slight
Madison	30.5	23.4	14.4	low to moderate	22.8	slight
Watertown	29.0	24.0	13.1	moderate to high	22.0	slight
Southeast						
Kenosha	33.3	24.8	24.2	high	27.4	moderate
Miwaukeee	32.6	26.8	17.7	moderate to high	25.7	slight
Racine	31.4	27.2	16.2	moderate to high	24.9	slight

¹ Based on the Iowa State Model that predicts the prevalence of Stewart's disease

² Based on the Stevens-Boewe Model



EXOTIC Pest of the Week
Light Brown Apple Moth, *Epiphyas postvittana*

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