

# Northeast Wisconsin Forest Pest Update

March 15, 2011

## Topics covered this month:

### Insects:

Asian longhorned beetle webinar  
Brown marmorated stink bug  
Emerald ash borer  
European oak borer  
European paper wasp  
Fun bug bit  
Gypsy moth  
Sirex woodwasp in MI  
Tick ID cards

### Diseases:

Eastern gall rust  
Reporting resistant elm trees

### Other:

Ash bark splitting – follow-up to 2009 reports  
Forest health annual report online  
Ordering publications  
Pesticide applicator training and prep classes  
Side effects of systemic insecticides

## Insects

\*information and photos in this document from Linda Williams unless otherwise noted.

**Asian Longhorned Beetle webinar** – a webinar regarding the biology, range, and latest updates for Asian Longhorned Beetle was given recently by Brendon Reardon, National Program Manager for Asian Longhorned Beetle, USDA-APHIS, Maryland. Asian longhorned beetle is not established in Wisconsin but if you're interested in learning the latest about where it is found check out this webinar at [http://www.emeraldashborer.info/eab\\_university.cfm](http://www.emeraldashborer.info/eab_university.cfm) (page down to the list of webinars). Additional webinars available on this page include other EAB topics, hemlock woolly adelgid, other exotics, etc.

**Brown Marmorated Stink Bug** – from Bill McNee. Last month we reported that the brown marmorated stink bug (BMSB) had been found in Michigan, and since then it has been reported in Iowa for the first time. BMSB has a similar home-invading behavior, but has a much stronger odor. BMSB is also a serious pest of many fruit and vegetable crops, including tree fruits, soybeans and green beans. The pest was first found in Pennsylvania in the late 1990s and has since been found in a



Brown Marmorated Stink Bug.  
Photo from  
[www.forestryimages.org](http://www.forestryimages.org)

number of northeastern and west coast states. A breeding population of BMSB has not been detected in Wisconsin, although 2 specimens that were transported into Wisconsin from other states were identified by Phil Pellitteri in 2010.

If you're wondering why we're talking about this insect, watch this video:  
<http://www.courierpostonline.com/article/20110218/NEWS01/102180347/Massive-stink-bug-invasion-predicted>.

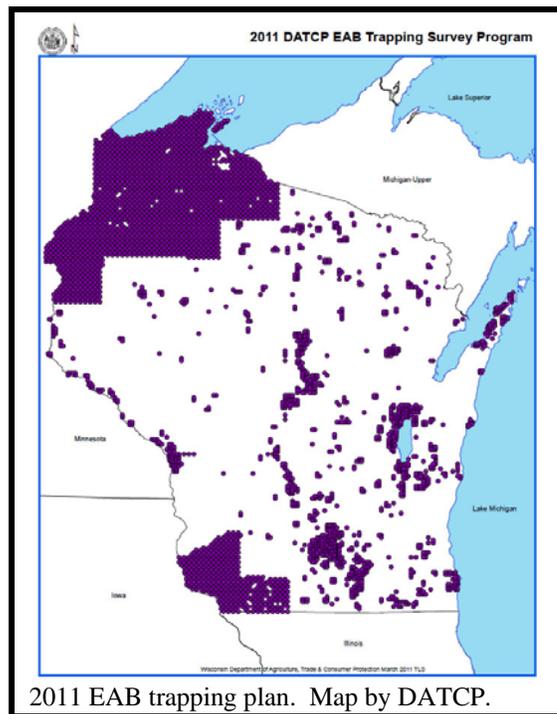
**Emerald Ash Borer (EAB)** – from Bill McNee. Jen Statz, EAB program coordinator for the Dept. of Agriculture, Trade and Consumer Protection, has taken a new position within that agency. We wish her well. Questions about the EAB survey project can be directed to Melody Walker ([melody.walker@wisconsin.gov](mailto:melody.walker@wisconsin.gov)), or to the links on the EAB website, [www.emeraldashborer.wi.gov](http://www.emeraldashborer.wi.gov).

DATCP is planning to set up approximately 6,000 EAB traps this year. About 2,000 will be on a grid in northwest and southwest Wisconsin, while the rest will be risk-based and placed at campgrounds, wood-utilizing businesses, etc. Traps are not being placed in counties where EAB has already been detected. Traps can be purchased from two manufacturers; contact Bill McNee for details ([bill.mcnee@wisconsin.gov](mailto:bill.mcnee@wisconsin.gov)).

A new EAB survey technique was recently demonstrated in Green Bay by Dr. Krista Ryall of the Canadian Forest Service in Sault Ste. Marie, Ontario. The technique involves peeling mid-crown ash branches to look for EAB larvae and galleries, and has been shown to be an effective method of finding EAB before trees show symptoms of infestation. It is hoped that this survey method can be used by arborists and municipal forestry crews as part of their regular work to prune and remove trees. The methodology is available at

[http://www.oakville.ca/Media\\_Files/forestry/EABbranchsamplingRyall2010.pdf](http://www.oakville.ca/Media_Files/forestry/EABbranchsamplingRyall2010.pdf). For more information, contact one of the DNR Forest Health or Urban Forestry staff.

The northeast region has a few of the EAB demo kits available for educational purposes. If you don't already have one and would like a kit, email Bill McNee ([bill.mcnee@wisconsin.gov](mailto:bill.mcnee@wisconsin.gov)). Kits are first come, first serve. They have vials of the adult and larva, as well as pieces of infested wood.



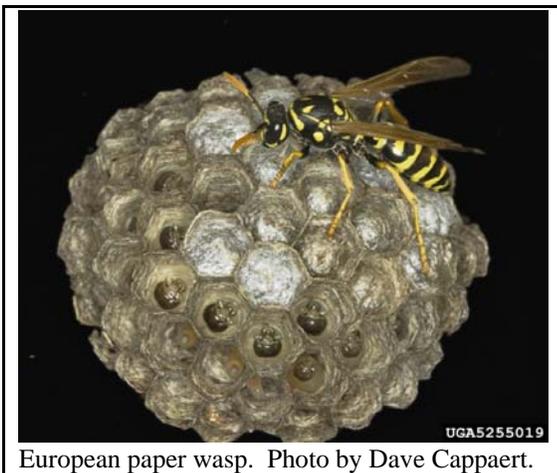
Samples of 2-3" diameter branches infested with EAB. (Branches are from Ontario, not Green Bay)

**European Oak Borer** - this non-native metallic woodborer infests oak and was recently discovered in Michigan and New York. Some previously unidentified or misidentified specimens of European oak borer (*Agrilus sulcicollis*) date back to 1995 in Ontario and 2003 in Michigan, but actual identification was more recent, in 2008. European oak borer is native to most of Europe. It has been found infesting *Quercus robur* (English oak) and *Q. rubra*. In Michigan adult beetles were collected May 21 – June 25 and they're continuing a study of girdled trees to try to attract this insect and determine infestation rates and host preferences among oak species. This insect is slightly smaller than two-lined chestnut borer so I'm guessing that most of you will not be seeing this critter, but if you do feel free to send me a sample! It is unknown at this time how much of an effect this insect has on oaks, although a report from Ontario in 2009 stated that "to date, no significant in oak forests has been observed".



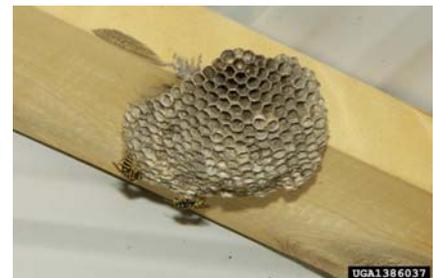
European oak borer. Photo by Milan Zubrik, Forest Research Institute Slovakia.

**European paper wasp** – originally discovered in Massachusetts in late 70's, European paper wasp (*Polistes dominula*) was first



European paper wasp. Photo by Dave Cappaert.

recorded in MI in 1994, in the UP in 2010, was first reported in WI in 2004 and noted in Green Bay in 2007. This insect can be easily moved in car wheel



European paper wasp nest. Photo by Joseph Berger.

wells, recreational vehicles, outdoor equip, etc, and has spread from Massachusetts south to Virginia and west to Wisconsin, as well as several western states. European paper wasp adults (left) make paper nests of open cells. The adults hunt caterpillars that they feed to their young. These wasps can be mistaken

for yellowjackets or hornets, and they are capable of stinging although the information I found seems to indicate that they are less aggressive than yellowjackets. And, since they prefer caterpillars as a food source, it seems that they are not attracted to your outdoor picnics (unless you have caterpillars on your menu). More info can be found on Michigan State's website at <http://www.pestid.msu.edu/InsectsArthropods/EuropeanPaperWaspPolistesdominulus/tabid/257/Default.aspx> or by googling European Paper Wasp.

**Fun bug bit** – a friend sent me this photo of her dog's Halloween costume from last year and I just had to share. You can tell by the look on his face that he's just buzzing with excitement at his new look! Yah, ok, that was bad 😊 Enjoy!



**Gypsy moth** – from Bill McNee. It doesn't seem like it, but it's that time of year to let you know that the gypsy moth caterpillars will be hatching in a little over a month.

Maps of the proposed DNR suppression program treatment areas are now available online at [www.gypsymoth.wi.gov](http://www.gypsymoth.wi.gov). This year the program plans to spray approximately 3,000 acres in 8 counties. This year's spray cost is \$38.65 per acre and is higher than last year due to a smaller spray program and high fuel prices. For more information, visit [www.gypsymoth.wi.gov](http://www.gypsymoth.wi.gov).

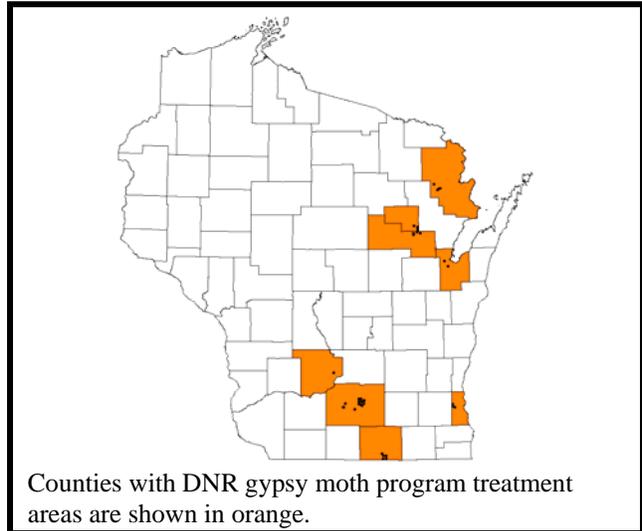
DNR gypsy moth grants manager Sue Kocken has retired after 7 years in the gypsy moth program. We wish her well in retirement. Kathy Hanson has taken over as the new gypsy moth grants manager in Madison. Kathy can be reached at [Kathleen.Hanson@wisconsin.gov](mailto:Kathleen.Hanson@wisconsin.gov) or (608) 266-9426.

The Wisconsin Department of Agriculture, Trade and Consumer Protection's Slow-the-Spread Program plans to aerially treat about 250,000 acres in 22 counties this year. Maps will soon be available online at [www.gypsymoth.wi.gov](http://www.gypsymoth.wi.gov).

We have heard of significant landowner interest in hiring applicators to do aerial spraying for gypsy moth this spring, primarily in Marinette County. A list of for-hire aerial applicators is available on the state's gypsy moth website, [www.gypsymoth.wi.gov](http://www.gypsymoth.wi.gov). Callers interested in aerial spraying for gypsy moth or other defoliating insects can be referred to this website for the list and a guide to organizing private spraying. There are currently only two applicators licensed for aerial spraying in residential areas (defined as more than one residence per five acres being sprayed). It's too late to add any treatment areas to the DNR Suppression Program for spraying this spring. Applicators should be contacted as soon as is practical.

Homeowners who are interested in reducing gypsy moth populations should consider oiling or removing egg masses well before they start hatching in April. Horticultural oils that suffocate the eggs are available at many garden centers and large retailers. In general, these are applied when temperatures are above 40° and freezing is not imminent. If removing egg masses, scrape them into a bucket of soapy water and then let them soak for a few days before discarding in the trash. Additional management options for homeowners and woodlot owners are available at [www.gypsymoth.wi.gov](http://www.gypsymoth.wi.gov).

Homeowners considering insecticide treatments this spring should contact an arborist or tree service soon. The Wisconsin Arborist Association has a list of certified arborists available at [www.waa-isa.org](http://www.waa-isa.org). Additional businesses offering insecticide treatments may be found in the phone book under 'Tree Service.' Homeowners can also purchase insecticides (some applied as a soil drench) at garden centers and large retailers.



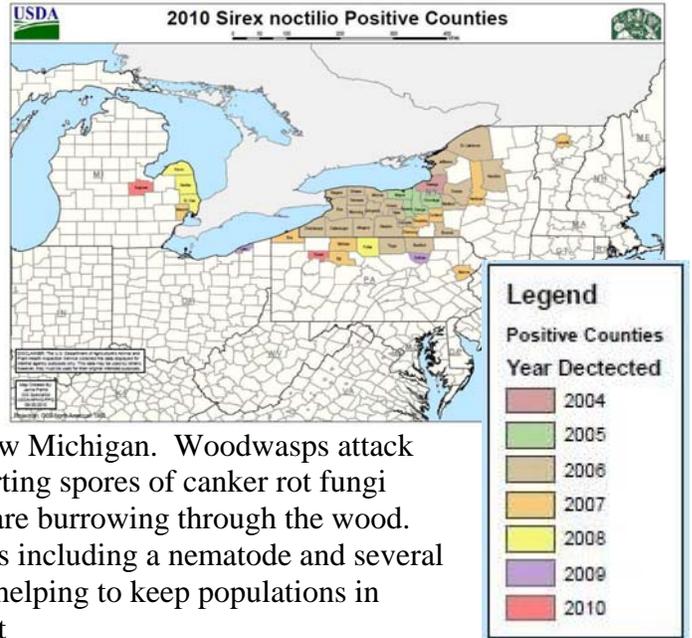
Female gypsy moth laying egg mass.

**Sirex Woodwasp in MI** – this exotic species has not been found in Wisconsin yet, although



Sirex woodwasp, female (top) and male (bottom). Photos from [www.forestryimages.org](http://www.forestryimages.org)

Michigan collected their first Sirex Woodwasps in 2007. This insect is native to Europe, Asia, and parts of Africa and is a potentially serious pest of pines. It was first detected in New York in 2004 but has since been found in Pennsylvania, Ontario,



Canada, Vermont, and now Michigan. Woodwasps attack trees by laying eggs under the bark and also inserting spores of canker rot fungi which begin to decay the tree even as the larvae are burrowing through the wood. This pest has several biological control organisms including a nematode and several parasitic wasps that are native to the US that are helping to keep populations in check. The pest alert for this pest can be found at [http://na.fs.fed.us/spfo/pubs/pest\\_al/sirex\\_woodwasp/sirex\\_woodwasp.htm](http://na.fs.fed.us/spfo/pubs/pest_al/sirex_woodwasp/sirex_woodwasp.htm)



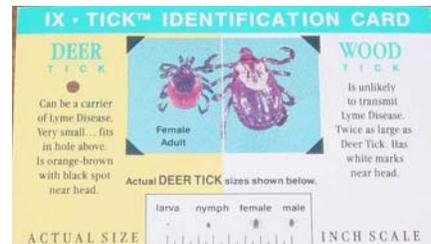
Our most common native woodwasp, the Pigeon Tremex or Pigeon Horntail (left), attacks stressed and dying hardwoods. In this area the favorite species is maple but we have a lot of dying hickory in this area and I'm finding Pigeon Horntails attacking those trees as well.

If you find woodwasps/horntails attacking pines in Wisconsin please let me know.

**Tick ID cards** – with the snow melting and the temps warming up it will be tick time before you know it! If anyone needs Tick ID Cards (right) which compare a Deer Tick with a Wood Tick you can order up to 100 for free from Gunderson Lutheran at

<http://www.gundluth.org/?id=3933&sid=1> If you've never seen the tiny 6-legged nymphal stage of the deer tick, or any of the other immature stages which have 8 legs like the adults do, you can stop by my office the next time you're at the DNR Headquarters in Green Bay and check out the specimens that I've collected over the years.

Sometimes it's hard to picture just how tiny deer ticks are (especially the immature ticks) until you see them in person.

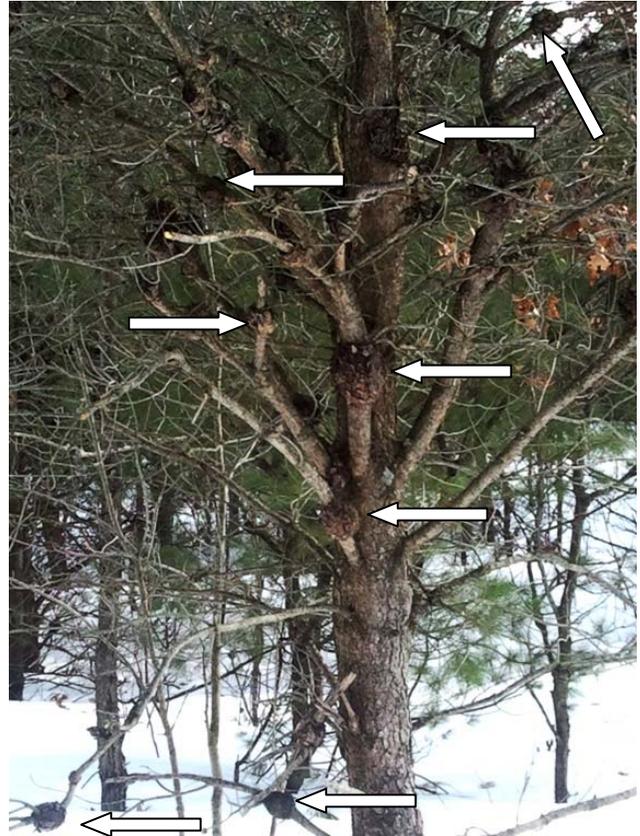


## Diseases

**Eastern gall rust** – sometimes referred to as pine-oak gall rust, this gall can be common on Jack Pine. Although oak is the alternate host for this disease it is rarely damaged by the fungus. In the spring of the year the galls on pine will produce bright orange/yellow powdery spores, but the rest of the year the galls appear as woody swellings on the branches and main stem of the trees (right). These galls are capable of girdling the branches but often the branches will continue



to survive for many years with the gall continuing to grow in size as well. Seedlings with galls (left) will probably not survive long. Some trees are more susceptible to this disease than



others and can become heavily galled. Heavily galled trees can be removed at the time of a thinning. There is a more

aggressive gall rust called Western gall rust, or pine-pine gall rust, that can, and often does, kill the trees by girdling them.

**Reporting resistant elm trees** - researchers at the US Forest Service Northern Research Station in Ohio are trying to expand current efforts to screen American elm trees that may be tolerant or resistant to Dutch Elm Disease. They are asking for the help of state foresters, park employees, and the interested public to identify large American Elm trees that may be resistant/tolerant to Dutch Elm Disease.

Trees must be:

- American Elm
- In good health and at least 24 inches diameter at breast height (DBH)
- Located in an area where dead or dying American elms are within about one mile of identified tree
- Tree cannot have been treated with a fungicide to prevent DED

If you know of a tree that meets those requirements and you would like to have it included in the Survivor Elm Database, go to

[http://www.nrs.fs.fed.us/disturbance/invasive\\_species/ded/survivor\\_elms/](http://www.nrs.fs.fed.us/disturbance/invasive_species/ded/survivor_elms/) and you can enter the address, or the lat/long of the location of the tree.

## Other/Misc.

**Ash bark splitting, follow-up from 2009** – in 2009 I reported on a problem with young ash trees that developed long vertical cracks in the bark, which widened into large elliptical dead spots on the main stem and some branches. Trees were an assortment of ages, an assortment of planting dates, and from an assortment of nurseries, but all were ash. The most common cultivar affected was Autumn Purple. Other cultivars affected include Skyline and Cimarron. These trees could be found in many areas around the state, including a number of urban areas in the northeast region.

The areas of split bark generally started within a foot of the ground, and could be found all the way up into the branches.



Bark splits in the crown of a young ash tree.

The most common location for splits seemed to be from 1-3 feet above ground level. The average bark split was approximately 12 inches long and 4 inches wide, but there was a wide array of split sizes and locations. Split bark, with the associated dead spots underneath, occurred on all sides of trees, regardless of orientation to roads, sidewalks, shade, reflective surfaces, or compass direction. They all appeared to have occurred at the same time based on amounts of callus tissue formed (probably fall 2008 or very early spring 2009).



Bark splitting on the main stem of young ash with dead area underneath.

After examining numerous ash trees with the same symptoms, I was able to eliminate a number of things including insects, disease, mechanical injury, sunscald,

herbicides, and planting stress. That left abiotic issues as the culprit.

Recently, at the Wisconsin Arborist Association annual conference, I listened to Gary Johnson, from the University of Minnesota, who spoke about winter thaws, cold tolerance, and supercooling in trees. He made a statement that quite possibly solved the riddle of the ash bark splitting that was noted in 2009. He said that ash bark splitting may be due to the trees losing their supercooling ability (the ability to tolerate very cold temperatures without being damaged). This would occur with a winter warm up or winter thaw, followed by a sudden return to bitterly cold temps, and he stated that damage could occur on the main stem and in the branches, with both intercellular dehydration, and intracellular freezing. He also stated that this problem is not at all uncommon on ash! Fascinating!

**Forest health annual report online** – the Forest Health Highlights, our annual report, is now available online at <http://new.dnr.wi.gov/DocumentLibrary/Repository/Forestry/fh/AnnualReports/AnnualReport2010.pdf>

**Ordering Publications** - As the field season approaches, DNR staff can order forest health and other forestry brochures from the following link: <http://intranet.dnr.state.wi.us/int/land/forestry/Publications/> Non-DNR staff can contact their DNR forest health person to order them.

**Pesticide applicator training and prep classes** – from Kyoko Scanlon. Are you interested in being certified as a pesticide applicator in the Forest category? This spring FISTA is offering several training sessions for loggers and other forestry professionals to prepare for the exam. There will be two one-day PESTICIDE APPLICATOR PREPARATION sessions in March. The sessions focus on reviewing Forestry pesticide applicator training materials to help you better understand the contents. There won't be any exam at the end of these sessions. The sessions will be held on 3/18 in Weston and on 3/23 in Rice Lake.

There will be a one-day PESTICIDE APPLICATOR TRAINING AND EXAM session on 4/8 in Weston. A certificate exam will be offered by DATCP at the end of this session. The instructors took comments/suggestions from the participants of last year's session and made some improvements. There will be a section that will teach you how to familiarize yourself to multiple choice tests. There won't be any annosum info or video, just pesticide applicator training.

To register, follow the instructions in the FISTA 2011 Workshops booklet and fill out the registration form at [http://www.fistausa.org/PDFs/FISTA\\_2011\\_Workshops.pdf](http://www.fistausa.org/PDFs/FISTA_2011_Workshops.pdf). For questions, please call FISTA at 1-800-551-2656.

**Side effects of systemic insecticides** – systemic insecticides are being used more and more commonly against emerald ash borer, as well as a number of other tree pests. Their long residual (1-2 years) and their ease of use make them a very attractive option for homeowners, whether they're applying them themselves or hiring an arborist to treat their trees. A document is now available that answers some of the frequently asked questions people have about the side effects of using the different systemic pesticides [http://www.emeraldashborer.info/files/Potential\\_Side\\_Effects\\_of\\_EAB\\_Insecticides\\_FAQ.pdf](http://www.emeraldashborer.info/files/Potential_Side_Effects_of_EAB_Insecticides_FAQ.pdf) This document covers the impact of systemics on ground water, surface water, aquatic organisms, as well as possible effects on woodpeckers, honeybees, and more, so check it out!

Report EAB:

by phone 1-800-462-2803

by email [DATCPEmeraldAshBorer@wisconsin.gov](mailto:DATCPEmeraldAshBorer@wisconsin.gov)

visit the website <http://emeraldashborer.wi.gov/>

Report Gypsy Moth:

by phone at 1-800-642-6684

by email [dnrfgypsymoth@wisconsin.gov](mailto:dnrfgypsymoth@wisconsin.gov)

visit the website <http://www.gypsymoth.wi.gov/>

**Northeast Region Pest Update produced by:**



[www.emeraldashborer.info](http://www.emeraldashborer.info)



**Frequently Asked Questions Regarding Potential Side Effects of Systemic Insecticides Used To Control Emerald Ash Borer**

Jeffrey Hale, Assistant Extension Entomologist, Department of Entomology, University of Minnesota  
Dana A. Hains, Professor, Department of Entomology, Ohio Agricultural Research and Development Center, The Ohio State University  
Deborah C. McCullough, Professor, Department of Entomology and Department of Forestry, Michigan State University

**What systemic insecticides are commonly used to protect ash trees from emerald ash borer (EAB)?**

Systemic insecticides containing the active ingredients imidacloprid, dinotefuran or emamectin benzoate are commonly used to protect ash trees from EAB. All three are registered for agricultural use and have been designated by the Environmental Protection Agency as Reduced Risk insecticides for certain uses on food crops. The most widely used insecticide in the world, imidacloprid has been utilized for many years to control pests of agricultural crops, turfgrass, and landscape plants. Because of its low toxicity to mammals, it is also used to control fleas and ticks on pets. Dinotefuran is a relatively new product that has properties similar to those of imidacloprid, but it has not been researched as thoroughly. Emamectin benzoate, derived from a naturally occurring soil bacterium, has been registered for more than 10 years as a foliar spray to control pests in vegetable and cotton fields and granular use for in-solution equine use. Similar products are used in veterinary medicine as wormers for dogs, horses, and other animals.

To control EAB, some products containing imidacloprid or dinotefuran are applied as a drench



The invasive emerald ash borer has killed millions of ash trees in North America.

directly to the surface of the soil or injected a few inches under the soil surface. Dinotefuran can also be applied by spraying the bark on the lower feet of the trunk. Emamectin benzoate and specific formulations of imidacloprid are injected directly into the base of the tree trunk. Systemic insecticides are transported within the vascular system of the tree from the roots and trunk to the branches and leaves. This reduces hazards such as drift of pesticides to non-target areas and applicator exposure that can be associated with spraying trees with broad-spectrum insecticides, and has less impact on beneficial insects and other non-target organisms. Many products registered for control of EAB can be applied only by licensed applicators. In all cases, the law requires that anybody applying pesticides comply with instructions and restrictions on the label.



Ash trees living a normal before (left) and after (right) they were destroyed by EAB.

Linda Williams  
Forest Health Specialist  
Wisconsin Department of Natural Resources - Northeast Region  
[Linda.Williams@wi.gov](mailto:Linda.Williams@wi.gov)  
<http://dnr.wi.gov/forestry/fh/>

**For more information contact:**

Bill McNee  
NER Gypsy Moth Suppression Coordinator  
920-662-5430  
[Bill.McNee@wi.gov](mailto:Bill.McNee@wi.gov)

Linda Williams  
NER Forest Health Specialist  
920-662-5172  
[Linda.Williams@wi.gov](mailto:Linda.Williams@wi.gov)

**Note: This pest update covers forest health issues occurring in Northeastern Wisconsin. This informal newsletter is created to provide up-to-date information to foresters, landowners, and others on forest health issues. If you have insect or disease issues to report in areas other than northeastern Wisconsin please report them to your local extension agent, state entomologist or pathologist, or area forest pest specialist.**

Pesticide use: Pesticide recommendations contained in this newsletter are provided only as a guide. You, the applicator, are responsible for using pesticides according to the manufacturer's current label directions. Read and follow label directions and be aware of any state or local laws regarding pesticide use.