

State of Illinois
Pat Quinn, Governor

Department of Agriculture
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EAB NEWS EAB NEWS



Autumn 2011

VOLUME 5, ISSUE 2



EAB FOUND IN SOUTHERN ILLINOIS

Marion, Effingham, DeWitt and Stark Counties; Newest Counties Found to be infested With EAB



northern DeWitt County on a farm in Rutledge township and in northwestern Stark county also found EAB on a rural farmland. USDA APHIS confirmed all of these finds as *Agrilus Planipennis*, or EAB.

Currently there are 25 counties in the northeastern and central part of the state, which are under the internal state EAB quarantine issued by the Illinois Department of Agriculture; however Marion and Effingham counties are a far cry from the quarantine's southernmost tip, which is Champaign County. And Stark and DeWitt counties are outliers to the current quarantine as well. Therefore, "the quarantine boundaries will definitely need to be adjusted," says Warren Goetsch, IDOA bureau chief of Environmental Programs.

The internal state quarantine is intended to prevent the inadvertent or accidental spread of the beetle. It prohibits the intrastate movement of potentially-contaminated wood products, including ash trees, limbs and branches and all types of non-coniferous firewood.

Goetsch continued, "The new Quarantine boundary adjustments will not be made until all purple traps have been harvested and analyzed, but Marion, Effingham, DeWitt and Stark County residents are all urged to heed all quarantine guidelines as if they were officially quarantined."

How did EAB get to southern Illinois? In addition to the artificial spread of this pest via firewood and other wood products, IDA officials highly suspect that unwitting automobile, truck and train traffic may be culprits for the exacerbated transport of this pest. The fact that EAB has been at this location for an estimated five to seven years, but has gone undetected for that long, it appears most likely that adult beetles "hitchhiked" on train cars from infested areas north and east, probably before these locations were known to be infested, and later quarantined. "We found that less than 50 yards from the trap location near Salem is a major freight rail line; a multiple rail line siding and switching yard. Trains stop along there numerous times a day for up to an hour.

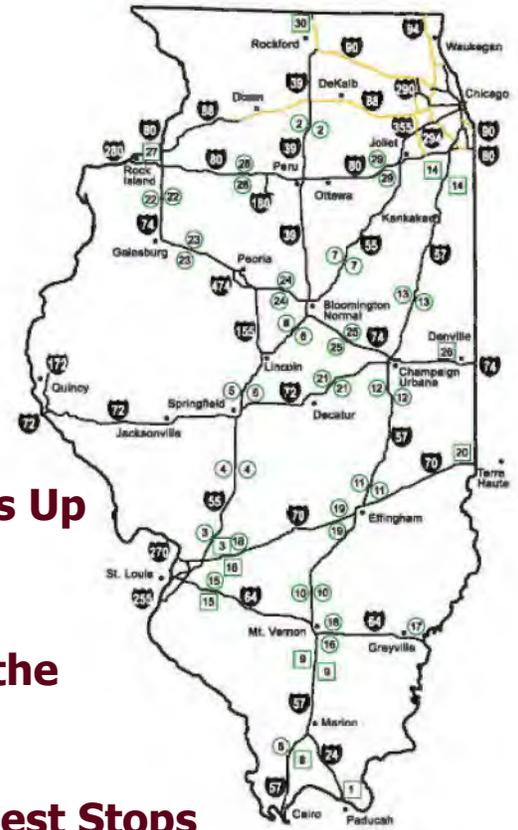
"We have been noticing a trend that EAB is showing up along major highways and railways, and near major intersections, which suggests that the stealthy beetle may be making its way through transport corridors. We can determine with relative certainty that these infestations occurred before any quarantines were put in place, so there is no suspicion of violation. EAB continues to be a sneaky traveler, which is why it is important that we all put the quarantine into practice. Keep all firewood and untreated wood products from movement outside of its county of origin," says EAB Manager Scott Schirmer.

With these recent finds in southern Illinois, IDA officials strongly encourage a heightened awareness of stressed and weakened ash trees. Local and regional tree companies, villages, and cities should explore the Department of Agriculture's compliance agreement program, and generally brush up on rules and regulations pertaining to the processing and transport of ash materials.

The destructive pest that feasts on ash trees has been confirmed in Marion County, just north of Salem, Illinois, and a second confirmation has been made in Effingham County at the Green Creek Rest Area on I-57, 4 miles north of Effingham. These are the southernmost finds of the emerald ash borer (EAB) in Illinois. Also, subsequent trap harvests reveal that EAB has also taken up residence in DeWitt and Stark counties in central Illinois, just outside the current 25-county state quarantine.

The first detection of EAB in southern Illinois was in Marion County and was discovered during the harvest of the purple sticky traps used in an EAB study by the U.S. and the Illinois Department of Agriculture. The intensive 55-county study conducted by the federal and state departments of agriculture revealed EAB has taken up residence in ash trees just north of Salem Illinois. Illinois Department of Agriculture (IDA) staff collected several specimens from a single trap placed in a Marion County rural residential area situated about a mile east of I-57 and a mile north of US50.

The specimens were submitted to the USDA's Animal and Plant Health Inspection Service, which confirmed them as *Agrilus Planipennis*, or EAB. When IDA officials were making their customary site visit to meet with Salem officials, IDA staff observed some unsightly ash trees in Effingham County along the I-57 corridor en route and stopped to make an inspection where they found live larvae. Additional trap harvesting in



IDA Teams Up with IDOT to Spread the Word at Highway Rest Stops

The EAB Educational kiosks, designed through a cooperative agreement with IDA and the University of Illinois EXTENSION, were recently deployed in September to 36 rest areas and Welcome Centers throughout the state. (Map above shows deployment areas). The kiosks were made from reclaimed ash wood which were harvested and milled from an infested EAB location, the Main Line Station rest area in Loda Illinois, off I-57.

These kiosks, which were crafted by four different furniture-makers from around the state, consist of a pictorial poster showing EAB in its adult and larval stages as well as ash tree identifiers and the resulting damages caused to ash trees. A giant EAB model is the attention-grabbing centerpiece with a display of the actual adult and larva encased in hand-sanitizer to show its actual size. Treated infested ash wood is also showcased showing the S-shaped galleries and D-shaped exit holes. A banner poster on the back reminds everyone not to move firewood.

Additionally, the kiosk promotes wood reclamation and utilization. A Plaque on the on the kiosk reads: This kiosk was made with reclaimed ash wood. Wood from Emerald Ash Borer-infested trees can be harvested, milled and crafted into beautiful furnishings rather than being chipped, burned or dumped into landfills. Consider using ash wood and making something old new again. For more on wood utilization visit, www.IllinoisEAB.com



Are we making any headway against EAB? Emerald Ash Borer Biological Control Program in Illinois

(This is a pared down version of John Lough's report. The full accounting of his research can be found on our website at www.IllinoisEAB.com)

The City of Chicago, Bureau of Forestry is cooperating with the US Forest Service and the Animal and Plant Health Inspection Service, Plant Protection and Quarantine (APHIS), to release and research the use of insect predators to control the Emerald Ash Borer (EAB). The cooperative effort is mutually beneficial in that researchers can extend their programs to multiple EAB infested areas, while Chicago and surrounding communities may ultimately benefit from insect predators reducing the overwhelming numbers of EAB.

These insect predators also known as parasitoids, are insects that feed on other insects ultimately killing their host. The selected parasitoids are host specific to EAB and are natural enemies of the beetle in its native range in China. The use of living biological controls or bio-controls, constitutes an important component to Integrated Pest Management and offers an additional tool in the arsenal of management tactics to reduce beetle populations. By establishing EAB parasitoids, Chicago hopes to reduce beetle pressure on ash tree populations, increasing the efficiency of chemical controls and augmenting any natural ash tree resistance to EAB.

While several parasitoids are identified as potentially impacting EAB, Chicago Forestry is working with the three hymenopteran insects currently reared by APHIS for control of EAB. These insects include one species of egg parasitoid, *Oobius agrili*, and two species of larval parasitoid, *Tetrastichus planipennisi* and *Spathius agrili*. Although in the Hymenoptera order and classified as wasps, the insects are stingless and will not harm humans or animals.

Researchers studied all three insects to see what potential these parasitoids had for attacking other species of non-EAB insects. The results demonstrated *Tetrastichus* only parasitizes EAB, and while *Spathius* and *Oobius* did parasitize other wood-boring *Agrilus* spp., they had no significant impact. The results indicated

that these three parasitoids were unlikely to have any significant effect on non-EAB insects.

Site Selection Chicago Forestry began identifying release sites based upon criteria listed in the USDA *Emerald Ash Borer Biological Control Release Guidelines*. Ideally sites are "in naturally forested areas, woodlots, or wooded wetlands and riparian zones" which offer the optimal conditions for insect establishment. These areas not only offer a more hospitable environment than hot city streets, typically they also have more continuous ash canopy which facilitates the parasitoids spreading into new locations.

Insect Releases Initially, the US Forest Service Research Laboratory in E. Lansing, MI was the only source of *Oobius* and *Tetrastichus*, which they discovered in China from parasitized EAB eggs and larvae, respectively. In 2010, the APHIS Biocontrol Rearing Facility in Brighton, Michigan became fully operational and is now responsible for mass-rearing three parasitoid species for management of EAB in the U.S. The parasitoids are carefully collected and shipped in coolers overnight to cooperators for distribution. Weather conditions can influence the operation since rain prohibits a release and hot weather can easily desiccate and kill the smaller parasitoids. Ideal release conditions are on clear days with little or no wind and with temperatures less than 85°. Even in cooler temperatures, parasitoids can not be left in vehicles or in direct sun light, because they will get too hot.

Results The first results were based purely upon field observations at the release sites.

Since the tree removal and rearing process is labor intensive and time consuming, Dr. Bauer is developing a pan trap to help survey for the larger two wasps, *Tetrastichus* and *Spathius*. The trap design and trapping protocol are currently being refined and will require diligent monitoring to be effective. However, trap in-

stallation and monitoring should prove to be less physically labor intensive



than harvesting ash trees, transporting them to labs, and rearing insects. Chicago Forestry anticipates installing and monitoring traps to continue to determine parasitoid establishment. Non-destructive sampling monitoring are also being developed for recovery of *Oobius* at release sites.

Forestry will also periodically visit and monitor release sites to evaluate tree condition on both large and small ash trees, and see if parasitoids are offering visible control of EAB. Dr. Bauer indicated the parasitoids may not be able to spread and build populations fast enough to preserve the larger ash trees. However, after the initial wave of EAB passes through an area, the smaller ash which escaped initial infestation may have a better chance to resist EAB once a resident parasitoid population of *Oobius*, *Tetrastichus*, and *Spathius* are established.

References:

USDA-APHIS/ARS/FS. 2010. Emerald Ash Borer, *Agrilus planipennis* (Fairmaire), Biological Control Release Guidelines. USDA-APHIS-ARS-FS, Riverdale, Maryland.

http://www.aphis.usda.gov/plant_health/plant_pest_info/emerald_ash_b/downloads/EAB-FieldRelease-Guidelines.pdf

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The Illinois Department of Ag's Position on Insecticide Usage:

Because we have been asked with relative frequency, the Illinois Department of Agriculture wanted to clarify its position as it relates to insecticidal EAB management. The Illinois Department of Agriculture, and its Emerald Ash Borer Program, believe systemic insecticidal treatments of ash trees, in response to or in preparation for Emerald Ash Borer infestation(s), can be a very useful component of a management plan. Insecticidal treatments can be an effective management strategy for high numbers of ash trees when integrated with the removal of known infested trees and continued monitoring of ash health, as a measure to potentially preserve and/or prolong the life of apparently yet unaffected ash trees. The department believes that by focusing treatment efforts on ash trees that are not showing signs and symptoms of EAB infestation, are in overall good condition, and are desirable trees to preserve, there will be a better chance of successfully preserving those trees through a treatment program. Illinois residents must consult their village public works department to determine any ordinances or policies that may be in place before committing to a treatment plan for **ANY** tree within the village. Additionally, residents are urged to consult with a certified arborist to assess the condition of an ash tree being considered for treatment, to ensure it is a viable candidate. **The Illinois Department of Agriculture does not and will not endorse any specific treatment method, insecticide, company, or applicator.**



ATTENTION ALL FIREWOOD IMPORTERS

State Law Requires ALL FIREWOOD IMPORTERS to register with IDA.

Please register by filling out this form:

New 2012 Application for Firewood Importers is available online



If you suspect EAB, please contact your city forester or local arborist or take digital photographs of the tree and the symptoms it is expressing and email them with contact info to: AGR.EAB@Illinois.gov



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