Southern Wisconsin Forest Health Update

Wisconsin DNR, Forest Health Protection Unit

March 6th, 2015 Vol. 12 No. 1

Topics in this update

Articles in this newsletter were written by Mark Guthmiller, Regional Forest Health Specialist, unless otherwise noted.

Emerald Ash Borer– Bill McNee

Woodpecker flecking on an EAB-infested ash tree.

Woodpecker flecking: Late winter is a great time to observe woodpecker flecking and potentially find new EAB infestations or expansions of known infestations. Numerous detections have recently been made in southeast, south central and northeast Wisconsin using this sign of EAB infestation. Although chilly, the winter of 2014-15 has not been cold enough to cause much mortality of overwintering larvae and we can expect populations to continue growing in 2015.

New detections: Since the last Southern Wisconsin Pest Update in December, we have had a number of new EAB detections that are worth noting. Every town, village and city in Kenosha County now has an EAB detection – it's the first Wisconsin county to achieve this unfortunate milestone.

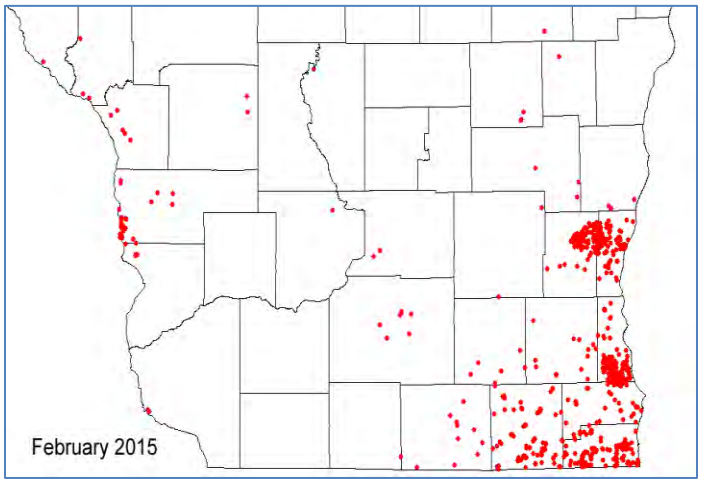
- Appleton (first detection in Outagamie Co., which was quarantined last summer)
- Webster Parish, Louisiana (first detection in that state)

New municipal detections in counties already known to be infested:

- Jefferson Co. - Town of Koshkonong, Town of Sullivan
- Kenosha Co. – Town of Paris
- Racine Co. – Village of Mount Pleasant, Village of Rochester, Village of Waterford, Town of Waterford
- Rock Co. – City of Milton
- Sheboygan Co. – Town of Sherman

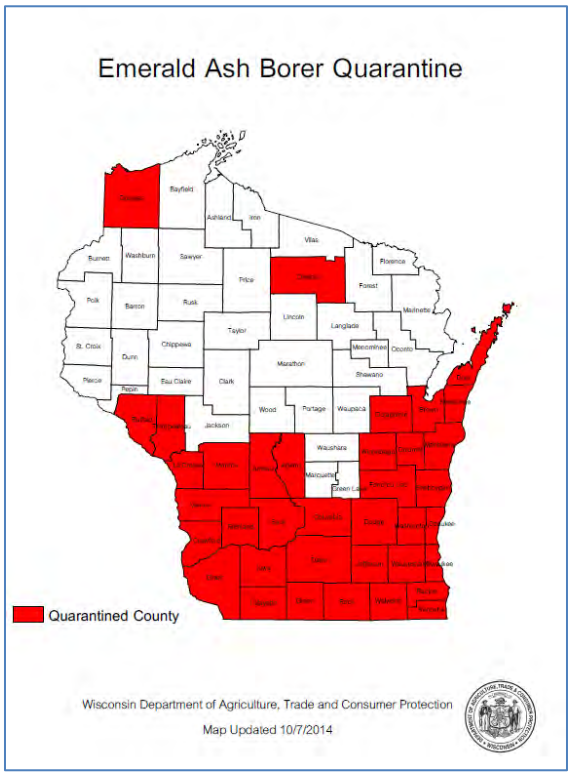
- Walworth Co. – Town of La Grange, Town of Spring Prairie, Town of Sugar Creek

A complete list of Wisconsin communities where EAB has been found is available online at: EAB Finds in Wisconsin.



EAB detections in southern Wisconsin as of late February 2015.

Spring EAB treatments: Late winter is a good time to consider insecticide treatments for high-value ornamental ash trees this spring. All of the counties in southern Wisconsin are now quarantined for EAB, and the ash trees are at high risk for becoming infested soon if they are not already infested. As long as a tree is not heavily infested, properly-done treatments should provide good protection even as adjacent, untreated trees become infested and die. Some of the insecticide products can be purchased and applied by property owners, whereas other products are only available to tree-care professionals. For more information about insecticide treatments for EAB, visit: EAB Treatments. The Wisconsin Arborist Association has a list of certified arborists available at: Certified Arborists for Hire. Additional businesses offering insecticide treatments may be found in the phone book under 'Tree Service.'



Counties quarantined for EAB are shown in Red.

Woodlot Management: For woodlots, ash in a quarantined county, or outside a quarantined county but within 15 miles of a known infestation, should be considered high-risk for silvicultural purposes. Pre-salvage of most or all ash in a stand should be considered. For more information on woodland management as it pertains to EAB visit: EAB Woodland Management.

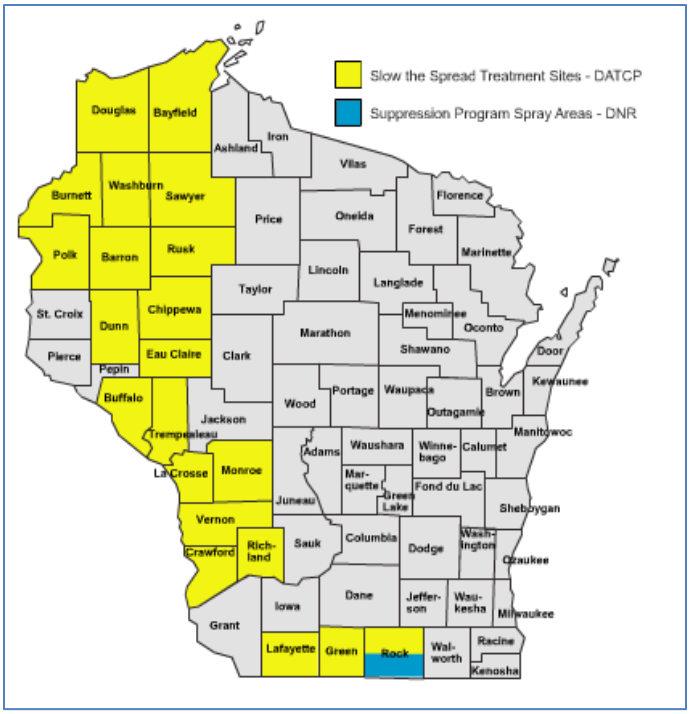
EAB and White Fringetree webinar: Dr. Don Cipollini, a Biology Professor at Wright State University in Ohio, recently gave a webinar on his discovery of EAB infesting white fringetree. If interested, it can be viewed here: EAB University Webinars. His webinar mentioned that he has recently received reports of D-shaped exit holes in white fringetrees located in Chicago and suburban Detroit, in addition to his confirmed discoveries in Ohio. According to the webinar, white fringetree does not have any native Buprestid beetles as hosts, meaning that the D-shaped holes in Illinois and Michigan are likely from EAB.

Gypsy Moth –Bill McNee

Slow-The-Spread (STS) gypsy moth treatments announced: The Wisconsin Dept. of Agriculture, Trade and Consumer Protection (DATCP) has announced its planned 2015 STS gypsy moth treatments that will use a bacterial insecticide, viral insecticide or pheromone mating disruptor. Beginning in May and continuing through late July or early August, DATCP plans to treat selected areas in western Wisconsin using low-flying

planes. Approximately 259,000 acres at 103 sites in 21 counties are targeted for treatments this spring. Yellow counties on the map have sites that are targeted for treatment (note: the entire county is not being treated). Sites to be treated have been identified as having increasing populations of gypsy moth. The STS program is part of a national effort at reducing the rate of gypsy moth spread at the leading edge of the establishing population.

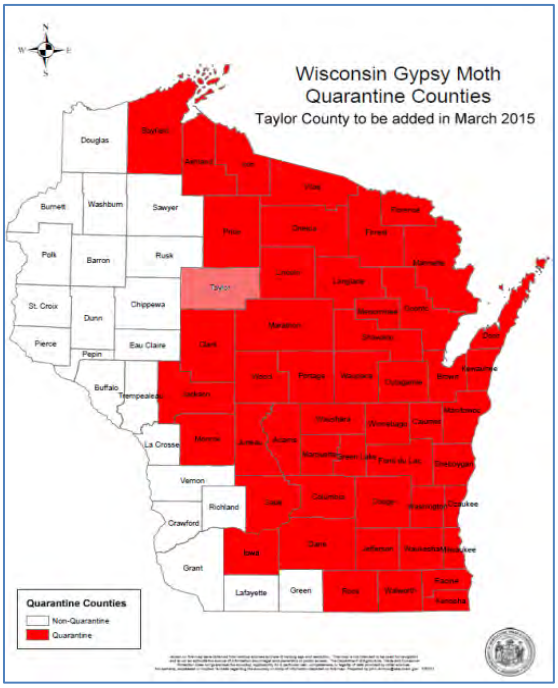
Counties scheduled to receive aerial treatments are: Barron, Bayfield, Buffalo, Burnett, Chippewa, Crawford, Douglas, Dunn, Eau Claire, Green, La Crosse, Lafayette, Monroe, Polk, Richland, Rock, Rusk, Sawyer, Trempealeau, Vernon and Washburn. More information about the sites and treatments is available online at: WI Gypsy Moth Web Portal. Click on the county treatment area map and then on the treatment site to see detailed treatment block maps. An open house will be held in Madison and several western locations to discuss the 2015 STS treatments. Open house details are available at WI DATCP Gypsy Moth Open House.



Proposed 2015 gypsy moth treatments will occur in these counties. Counties in yellow have STS treatments, and Rock County, in blue, has a single WI DNR suppression treatment. Note that there are STS treatments also in Rock County this year.

WI DNR Gypsy Moth Suppression spray block planned for Rock County: As part of the WI DNR Gypsy Moth Suppression Program, approximately 40 acres is planned for treatment in the Town of Beloit, in Rock County. A localized infestation had nuisance level caterpillars and scattered defoliation in 2014. Egg mass counts indicate likely damaging levels of defoliation for 2015. This is the only suppression block application received by WI DNR for this coming spring. The WI DNR Gypsy Moth Suppression Program is a voluntary treatment program, coordinated at the county level, and targets high damaging populations in the established areas of the state.

Taylor County to be added to the quarantine area: Later this month, Taylor County will officially be placed under state gypsy moth quarantine, joining most of eastern and central Wisconsin. For a map of gypsy moth quarantined counties in Wisconsin, go to: WI DATCP Gypsy Moth Quarantine. DATCP will make a press release once the date for implementation of the quarantine is approved. More information about quarantines can be found online at WI DATCP Gypsy Moth Quarantine.



Current gypsy moth quarantine area. Taylor County (lighter red color) will be added to the quarantine area later this month.

Predicting 2015 gypsy moth populations: There is still time for landowners and managers to look for gypsy moth egg masses to predict the pest's population size and potential damage to trees this summer. For more information on how to do egg mass surveys, visit: How To Predict Gypsy Moth Damage. DNR received very few nuisance caterpillar calls during the summer of 2014, and overall, we expect populations to remain low in 2015. It would be good to stay alert for building populations, especially if we have a dry warm spring and summer.

Gypsy moth egg masses.

Oil or remove egg masses: It will be about six weeks until gypsy moth egg masses start hatching in southern Wisconsin. Property owners who are interested in reducing gypsy moth populations should consider oiling or removing reachable egg masses well before then. 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^{o} and freezing is not imminent. If removing egg masses, scrape them into a can 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: Management Guide for Homeowners.

For residential areas with localized outbreaks you can also contact a certified arborist to assist with evaluations and treatments. The Wisconsin Arborist Association has a list of certified arborists available at: Certified Arborists for Hire. 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.

Pine Bark Adelgid

I recently noticed a number of white pine trees showing a heavy infestation of pine bark adelgid in a local municipal park in Dane County. It is in an area I frequently hike so I was surprised to see the extent of the adelgid infestation and that I had not noticed it earlier in the fall. With several generations per year, numbers can build up rapidly, as was apparent at this location. For forest plantations there are no real controls needed, however in ornamental or nursery situations treatment with a dormant oil product might be warranted. For more information visit: Forest Pests Pine Bark Adelgid

Recently observed pine bark adelgid makes the trunks of these trees look white washed.

Walnut Beetle ID Update

Back in last August's pest update I wrote about an observation on black walnut with "weeping" cankers and the subsequent rearing of numerous beetles from branch samples. Beetle samples were submitted to the University of Wisconsin Extension Entomologist, P.J. Liesch, for identification. P.J. confirmed a few different species from these samples. The majority of the beetles recovered were identified as the "apple wood stainer", *Monarthrum mali.* These ambrosia beetles are fairly common to the eastern US including previous records in Wisconsin. They generally attack weakened, stressed, and dying trees. To see more about the hosts and distribution of this ambrosia beetle visit: Bark Beetles of US and Canada

In addition to the apple wood stainer, a few other beetles were reared in much less numbers and identified as the yellow banded timber beetle, *Monarthrum fasciatum,* the black stem borer *Xylosandrus germanus*, and the lesser shothole borer, *Xyleborinus saxeni*.

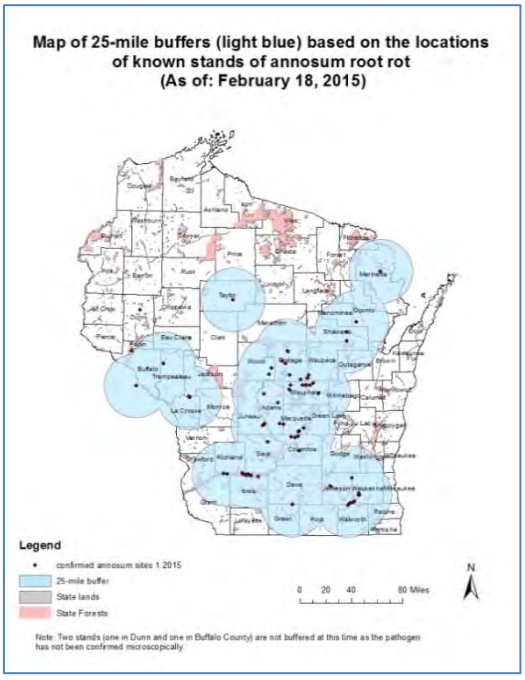
From top left clockwise: Bleeding wounds on walnut, large elongate cankers/decay under bark, numerous exit holes, and one of many ambrosia beetles identified as the apple wood stainer, *Monarthrum mali*.

While the causes of the dramatic "zebra like" cankers under the bark were not definitively confirmed as to the cause, they were very similar looking as documented bacterial cankers on walnut. Fruiting spore horns were also found on the inner bark near the cankers and appeared to be that of Valsa canker. Additionally, WI DATCP detected a *Fusarium* sp. on a wood sample submitted, another canker fungus that has been commonly associated with the black stem borer. It is possible that past drought stress along with a number of interacting fungi, bacteria, and insects contributed to the extensive dieback observed in this tree.

Annosum Root Rot – Kyoko Scanlon

Updated 25 Mile Map Reflecting Recent Columbia County and Winona MN Detections

This updated map reflects a recent new detection in Columbia County. The map also reflects the first confirmation of annosum root rot in Minnesota located across the border in Winona County. There are Wisconsin townships newly included in the 25-mile buffer based on these finds. These new townships will have a one-year grace period for implementation of the guide. The map will soon be updated on-line and there are plans to create a map that highlights newly added townships. The required use of the guide applies to state-owned DNR lands only. For details of the guide visit: Annosum Treatment Guide.



For more information about the Minnesota annosum find visit: Outdoor News Daily, Annosum in Minnesota. They detected the pathogen in the stand through PCR in November and made it official when they found conks in early 2015.

For more information on annosum root rot visit: WI DNR Annosum Web Page

Red Maple Beetle ID Update

In last August's pest update, I wrote an article on some observed maple dieback and mortality, which was quite common on red maple in southern Wisconsin. I mentioned collecting an unidentified beetle from one of the impacted red maples, which I incorrectly suspected might be a bostrichid beetle species. I often observed entrance/exit holes on canker faces, especially were the bark had sloughed off, but the attacks appeared to be coming in secondarily to canker formation. The sample was submitted to UW extension entomologist, P.J. Liesch, for identification and P.J. identified it as *Ptilinus ruficornis* (Family *Ptinidae*; Formerly *Anobiidae*). An old 1922 journal article out of New York made mention of this species as being fairly numerous on recent dead red maple trees that had not yet started to decay. Journal of the New York Entomological Society, Pg. 180 I also came across a more recent, and Wisconsin specific, write-up on this species in this wonderful USDA Forest Service General Technical Guide authored by Rachel Arango and Daniel Young. Death-Watch and Spider Beetles of Wisconsin, Pg. 41 Based on this write up it doesn't sound like this species is a major pest to structural or stored wood products here in Wisconsin.

A death watch beetle, *Ptilinus ruficornis*, collected from a declining red maple.

Devils Walking Stick or Japanese Angelica Tree?

DNR forester, Steve Holaday, recently visited a private woodland property in the Town of Vermont in western Dane County. The landowner pointed out a couple areas in his woodlands with a strange prickly plant growing. Steve brought a sample back to the office for identification. It appears to be a species in the genus *Aralia*, commonly named the "Devils Walking Stick" or "Japanese Angelica Tree". These are two very similar species, one being exotic, Japanese Angelica Tree (*Aralia elata*) and the other native to southeast United States, Devils Walking Stick (*Aralia spinosa*). Steve said, "The larger stems are about 8 to 10 feet tall and about 1 inch in diameter with the winter time branching shape and spacing similar to that of a saguaro cactus." Unfortunately, species identification requires comparing leaf veins and the florescence during the growing season. We will be planning a follow up visit this summer to see if we can get a solid identification on this plant. In the meantime it would be a good idea to keep an eye out for this plant, if for no other reason than it will get your attention in a nasty way if you walk into a patch of them. To report suspect invasive plants visit: WI DNR Invasive Species Reporting

DNR forester, Steve Holaday, with an unidentified *Aralia* species.

For more information and identification resources on these *Aralia* species visit:

Devils Walking Stick, *Aralia spinosa* (native SE US):
North Carolina Coopertive Extension Publication on Aralia Spinosa
Missouri Botanical Gardens Publication on Aralia spinosa

Japanese Angelica Tree, *Aralia elata* (exotic):
New England Wildflower Society Publication on Aralia elata
National Park Service Publication on Aralia elata

Comparison Publication between Native and Non-Native *Aralia* species:
Delaware Department of Agriculture Publication, Mistaken Identity, Pg. 8-9

Weed Management Groups and Grants– Mike Putnam

We have two grants available that are a part of the Weed Management Area Private Forest Grant Program (WMA PFGP) and are for work on non-industrial private forest land. Regular WMA PFGP grants support the formation and work of weed management areas (WMA) or cooperative invasive species management areas (CISMA). Recipients must provide a 25% match. These grants can be applied for once per year by the April 1st deadline. We also have the option of reserving a portion of the WMA PFGP for rapid response grants. The rapid response grants target prohibited species that are new to the state or are yet not widely established. Similarly, the grants can target restricted species that are new to a particular part of the state. The rapid response grants can be applied for at any time by as WMA or CISMA and there's no match requirement.

Weed Management Area Private Forest Grants
The application **deadline** for the Wisconsin Department of Natural Resource's **Weed Management Area Private Forest Grant Program** (WMA PFGP) is **April 1, 2015** for the July 2015 – June 2016 fiscal year awards. Existing Weed Management Area groups and those in the process of forming are invited to apply.

WMA PFGP grants provide funding for activities to control terrestrial invasive plants on parcels of non-industrial private forest (NIPF) land less than 500 acres. Eligible cost sharing practices include 1) education, information and outreach; 2) coordinating a weed management group; 3) inventory of invasive plants; 4) control of invasive plants that impact NIPF land; 5) other practices associated with managing invasive plants such as reforestation, habitat improvements, etc.; and 6) development of long term invasive plant management plans.

A weed management group consists of three or more "participating persons" and one of which is the "responsible party" who submits a W-9 form.

The maximum award from DNR cannot exceed $15,000. The DNR match is 75% while the awardee provides 25%. For example, a grant totaling $10,000 is awarded $7500 by DNR and the awardee provides $2500. Total grant funding of $60,000 is available each year.

Weed Management Group Rapid Response Grants
Weed management or cooperative invasive species management groups are invited to apply for **Rapid Response** funding through the Weed Management Area Private Forest Grant Program (WMA PFGP) of the Wisconsin Department of Natural Resources. The WMA PFGP provides grants to control "prohibited" terrestrial invasive plants on parcels of non-industrial private forest (NIPF) land less than 500 acres.

Rapid response grants are funded 100%, do not require a match and can be applied for at any time. A weed management group consists of three or more "participating persons", one of which is the "responsible party" who submits a W-9 form.

Up to 20% of the $60,000 annual WMA PFGP funding can be reserved to fund rapid response activities. Currently, $3000 is available through June 30, 2015 from fiscal year 2015.

Rapid response funds are intended to control or eradicate "prohibited" plant species listed in s. NR40, Wisconsin Administrative Code and early detection species new to the state or a region that impact Wisconsin's NIPF. Additional species have been proposed for NR 40 listing and we anticipate they will be regulated by June 30, 2015. Therefore, these added species are eligible for funding.

More information and application materials for the WMA PFGP are found at WI DNR WMA.

More information can also be obtained from the grant manager, Michael Putnam, at 608-266-7596 or michael.putnam@wisconsin.gov.

Miscellaneous Topics and Observations

FSC®'s revised list of Highly Hazardous Pesticides (HHP) published – Kyoko Scanlon
The Forest Stewardship Council (FSC) International has recently published a revised list of Highly Hazardous Pesticides (HHP), and the Indicators and Thresholds (I&T) on which that revised list are based. The documents are available on-line at the FSC International website. The revised standard will come into effect on March 10, 2015. After a six month transition period, the pesticides on the revised HHP list cannot be used on FSC certified lands unless a derogation is approved; a derogation is a temporary approval to use a listed pesticide until an alternative can be found. Most state, county forest and MFL lands are certified under the FSC system.

Although a specific variant of borax is on the revised HHP list, it is different from either of the borax products that are registered in Wisconsin (Sporax and Cellu-Treat*). Sporax and Cellu-Treat are still available for use on FSC certified lands. Similarly, though two variants of 2,4,-D are on the list, 2,4,-D 2-ethylhexyl ester (EHE), which was on the old HHP list, is not on the revised list. A good overview of the 2,4,-D variants is available here: 2,4-DTech Fact Sheet. These products can be used on FSC certified lands without a derogation. To clarify which active ingredients are prohibited, the best way is to use CAS numbers because each CAS number is specific to an exact molecular formula. The CAS number for an active ingredient can usually be found on the pesticide labelling or Material Safety Data Sheet.

*Note: Sporax and Cellu-Treat are products commonly recommended for conifer stump treatments as a preventative measure for annosum root rot. For more information on conifer stump treatments for annosum root rot visit: Annosum Root Rot Stump Treatment

Pesticide Applicator Training and Exam Opportunity – Kyoko Scanlon
FISTA is hosting a Pesticide Applicator Training & Exam in Hayward (Comfort Suites – 15586 County Road B, Hayward, WI 54843) on April 23. For more information, please contact FISTA at 715-282-4979 or 1-800-551-2656, website www.fistausa.org. Please note that registration cannot be taken over the phone. You will need to mail or fax (FAX 715-282-7987) the registration form. This training and exam will be beneficial for those needing certification to conduct preventative stump treatments for annosum root rot.

WI DNR Forest Health 2014 Annual Report

The 2014 DNR Forest Health Annual Report now available online: 2014 WI DNR Forest Health Annual Report

Christmas Tree Pest Manual Update

The USDA Forest Service has updated the Christmas Tree Pest Manual, a great reference for folks dealing with conifer pest issues. An electronic version of the manual can be found at: Christmas Tree Pest Manual 3rd Edition

New Winter Burn Extension Publication

UW Extension Horticulture program has put out a new fact sheet on winter burn injury to evergreens. To view the fact sheet visit: UW Extension Winter Burn Fact Sheet

WI DNR Nursery News

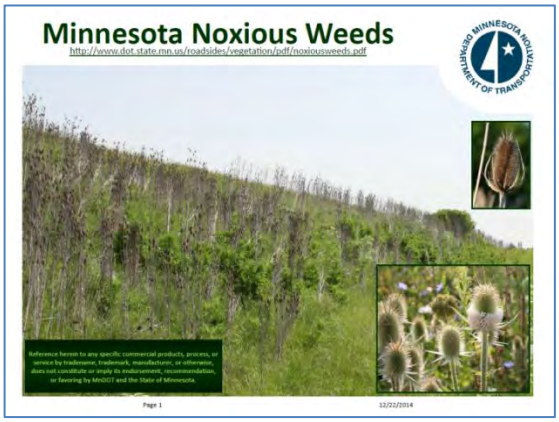
The January edition of the DNR Nursery News includes information on ordering tree seedlings from the nursery, a species focus on white pine, mechanical site prep, and information on ordering free seedlings for 4th grade students. January Nursery News

Tri-State Forestry Conference, Sinsiniwa

This conference is geared toward forest landowners and is scheduled for Saturday, March 15th in Sinsiniwa, WI, which is located in Grant County. The registration and agenda can be found at: Tri-state Forestry Conference

Minnesota Noxious Weeds Booklet

The Minnesota Department of Transportation has created a booklet on noxious weeds of Minnesota. It is a great resource for identification of a number of plants and includes timing for management at least as it relates to Minnesota. MN DOT Noxious Weed Booklet



In The News:

Emerald Ash Borer Detected in Louisiana

Emerald ash borer was recently detected in Webster Parish, Louisiana, becoming the 25th state to join the green menace club. For more information: EAB in Louisiana

Thousand Cankers Disease of Walnut confirmed in Maryland

Thousand Cankers Disease pathogen and beetle vector was found in Maryland for the first time: TCD Confirmed in Maryland

SOD Forest Health Assistance
Wisconsin DNR, Forest Health Protection Unit
March 2015

Contacts for DNR staff, municipal foresters, and forestry cooperators

Mark Guthmiller Forest Health Specialist Wisconsin DNR 3911 Fish Hatchery Road Fitchburg, WI 53711 Phone: (608) 275-3223 Email: Mark.Guthmiller@wisconsin.gov **Columbia, Dane, Dodge, Grant, Green, Iowa, Jefferson, Lafayette, Richland, Rock, and Sauk**	Bill McNee Forest Health Specialist Wisconsin DNR 1155 Pilgrim Rd. Plymouth, WI 53073 Phone: 920-893-8543 Email: Bill.McNee@wisconsin.gov **Kenosha, Milwaukee, Ozaukee, Racine, Sheboygan, Walworth, Washington, and Waukesha**

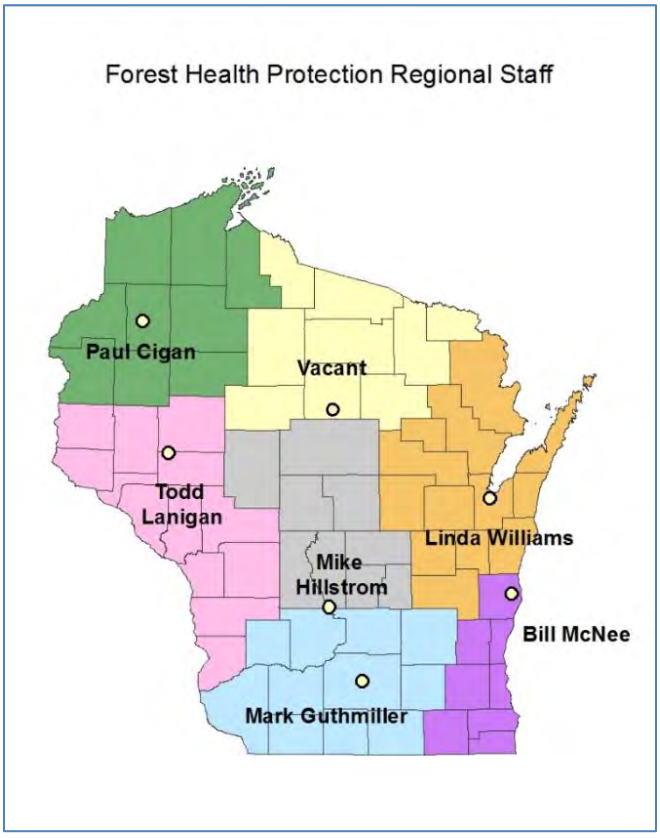
For a statewide forest health staff list:
http://dnr.wi.gov/topic/ForestHealth/staff.html

Additional Program Web-based Resources:
WI DNR Forest Health web site:
http://dnr.wi.gov/topic/ForestHealth/

Report Emerald Ash Borer in Unconfirmed Counties:
by phone 1-800-462-2803
by email: DATCPEmeraldAshBorer@wisconsin.gov
visit the website: http://emeraldashborer.wi.gov

Report Gypsy Moth:
by phone at 1-800-642-6684
by email: dnrfrgypsymoth@wisconsin.gov
visit the website: http://gypsymoth.wi.gov
(It is also recommended to report gypsy moth to your local government)

Please direct public inquiries regarding yard tree concerns to UW county or state extension offices: http://www.uwex.edu/ces/cty/



[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.]