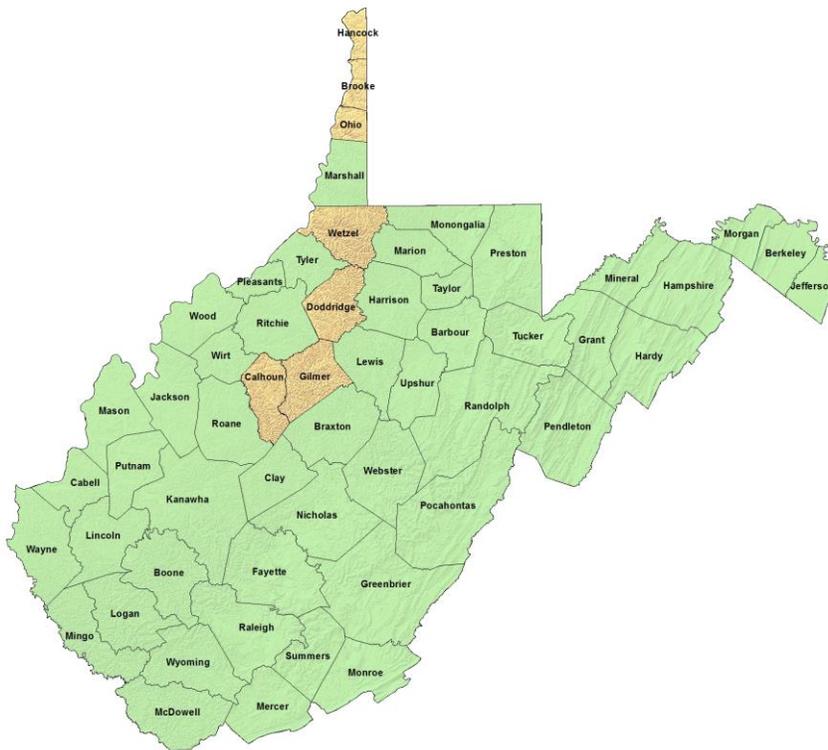


West Virginia Department of Agriculture



Hemlock Woolly Adelgid Cooperative Project



**West Virginia Department of Agriculture (WVDA)
United States Department of Agriculture, Forest Service (USDA-FS)**

**In collaboration with:
West Virginia Division of Forestry (WVDOF)
National Park Service (NPS)**

The hemlock woolly adelgid, *Adelges tsugae*, (HWA) is a non-native pest that is quickly decimating hemlocks (*Tsuga canadensis* and *T. caroliniana*) in the eastern United States. Without long-term control of HWA, eastern and Carolina hemlock will be significantly reduced, if not eliminated, throughout its natural range. HWA causes damage to hemlocks by depleting the hemlock's starch reserves, which in turn reduces the trees' ability to grow and produce new shoots. All ages and size classes of hemlock are susceptible to HWA infestations. HWA develops and reproduces on all species of hemlock, but only eastern and Carolina hemlocks are vulnerable when attacked. **Eastern hemlocks are the only hemlocks that naturally occur in West Virginia.**

HWA was first discovered on hemlock in Richmond, Virginia in 1951. By the late 1980s, HWA infestations were reported as the cause of extensive hemlock decline and mortality in forests throughout the eastern U.S. In 1992, the West Virginia Department of Agriculture (WVDA) conducted an initial survey for HWA and detected infestations on public and private lands in Grant, Pendleton, Hardy, and Hampshire Counties. Infestation densities indicated that HWA may have been present but undetected for several years before this. By 2003, mortality was occurring in some hemlock stands across the State and, to date, 48 counties are generally infested with HWA.

Both WVDA and the NPS have been proactive in managing HWA by implementing an HWA suppression program on public lands. Unfortunately HWA-infested hemlock stands are not only found on State and federal lands, but private lands as well. Management of this issue can be successful only if control measures are implemented across the landscape, by pooling efforts and resources from both State and federal agencies. In order to achieve this, there is a critical need to provide technical and financial assistance to private landowners for HWA suppression. WVDA is offering a cost share project for private landowners within counties known to be infested with HWA (counties displayed in green on cover).

This brochure is designed to answer some commonly asked questions and provide information about how a landowner can sign up for technical and financial assistance for HWA suppression.

What Does HWA look like?

The hemlock woolly adelgid is tiny, less than 1/16-inch (1.5-mm) long, and varies from dark reddish-brown to purplish-black in color. As it matures, it produces a covering of white wool-like wax filaments to protect itself and its eggs from natural enemies and prevent them from drying out. This "wool" (ovisac) is most conspicuous when the adelgid is mature and laying eggs. Ovisacs can be readily observed from late fall to early summer on the underside of the outermost branch tips of hemlock trees.



[From: http://www.na.fs.fed.us/spfo/pubs/pest_al/hemlock/hwa05.htm]

WHAT IS THE HEMLOCK WOOLLY ADELGID COOPERATIVE PROJECT?

It is a cooperative suppression project between landowners, the WVDA, and the USDA-FS. Ground treatments of individual trees will be done in the Project area on a demand basis to minimize the damage to the hemlock resource and reduce the impact of HWA in future years. Treatments will not be done with the intent of eradicating the pest. The WVDA will treat HWA with either CoreTect for soil treatments or ImaJet for stem injection. Both products contain the active ingredient Imidacloprid. The treatment method will be determined by a WVDA Forest Health Protection Specialist after a site evaluation has been completed. The site evaluation will determine if an area meets criteria set forth on the pesticide label and other possible restrictions.

LANDOWNER QUALIFICATIONS FOR TREATMENT

1. Only private lands within HWA-infested counties (counties displayed in green on cover).
2. >50% canopy cover of hemlocks.
3. A woodlot with a minimum of 5 acres. (Adjacent landowners may cooperate to meet the minimum acreage requirement, providing that both landowners qualify for treatment and participation in the project.)
4. Landowners with <5 acres may qualify for treatment if the proposed treatment area is adjacent to an area that is being managed for HWA.
5. Trees must have >50% foliage.
6. Only trees that have never been treated OR not treated within the last four years.
7. Areas proposed for treatment may not pose a safety risk to WVDA field personnel.
8. Pesticides used in treatments must be purchased directly by WVDA.

HOW CAN I SIGN UP?

Landowners who want to participate in the HWA Cooperative Project must complete an application and submit it with a \$100 deposit that will be applied to your treatment costs. The application can be received by calling the WVDA Charleston Office at (304) 558-2212 or downloading at: http://www.wvagriculture.org/images/Plant_Industries/About_Us.html.

Landowner submissions MUST be accompanied by one of the following types of maps of the property referenced in the application:

- 7.5-minute topographic map or an aerial photo with the property boundary marked on it
- ArcView shape file projected in NAD 83 UTM Zone 17
- Google Earth KML file

Deadline for signing up is September 30, 2014. Please return application, map and \$100 deposit to: West Virginia Department of Agriculture, c/o Kristen Carrington, 1900 Kanawha Blvd., East, Charleston, WV 25305. Please make deposit check out to WVDA.

A WVDA Forest Health Protection Specialist will contact you to make a determination as to whether or not your property qualifies. If your property does not qualify, your \$100 deposit will be returned. **Landowners must be present during the initial site visit to assist the WVDA Forest Health Protection Specialist in selecting trees for treatment. For absentee landowners, a representative for the landowner must be on site. Your final decision to participate in the program must be confirmed by signing a contract.**

HOW MUCH WILL IT COST?

Treatment costs will vary depending on treatment material and treatment method. The WVDA has received cost sharing dollars to survey for and treat a **limited** number of HWA infested trees in the proposed project area. The cost share ranges from \$1.50 per diameter at breast height (DBH) inch to \$2.00 per DBH inch depending on treatment type. The type of treatment depends upon distance of the tree to open water.

An estimate of the cost of treating a tree can be made by measuring its circumference, dividing the result by 3 and then multiplying that result by \$1.50 or \$2.00.

((circumference of tree ÷ 3) X (\$1.50 or \$2.00)) = estimate of cost to landowner
Schedule

Failure to meet deadlines will result in the landowner being dropped from the program:

August thru September 30th – landowner sign up.

October thru December 15 – property survey.

January 2 – Send out invoices.

February 15th – Deadline for final payment.

March 15th – Treatments start.

HOW CAN I GET MORE INFORMATION?

It is not possible to include answers to all questions in this brochure. Additional information on the WVDA's HWA Cooperative Project may be obtained by contacting Quentin "Butch" Sayers, Assistant Director, at (304) 788-1066, Kristen Carrington, Plant Industries Division Programs Specialist, Guthrie Office at (304) 558-2212, or Shawn McCauley, GIS Specialist, Oak Hill Office at (304) 573-0768.

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