



*Hemlock Happenings* is an e-newsletter for members, facilitators and other volunteers, donors, and friends of Save Georgia's Hemlocks to share hemlock news, educational information, service opportunities, and announcements. If you'd like to submit an article or announcement, please send it to the e-mail address below. Your feedback is always appreciated.

### News from the front

As usual, there's bad news and good news. The bad news is that the hemlock woolly adelgid continues to spread and has now been confirmed in Cloudland Canyon State Park in Dade County. That means HWA has made its way into all the north Georgia counties that have significant hemlock populations. The good news is the Dade infestation was discovered early, and aggressive action and continued vigilance can make a real difference in preserving hemlocks there.

In more good news, quite a few Hemlock Help Line callers have reported that trees they treated in the past several years are thriving beautifully. And even through this hot summer, we continue to receive two to three calls a day from new contacts wanting information on how to save their trees. And more POAs are getting their whole neighborhood involved in attacking the bugs. Thanks to all the individuals and groups who are helping to spread the word and taking action.

Elsewhere, we've been working with the newly formed Tennessee Hemlock Conservation Partnership as they prepare to launch a program focused on helping private property owners save their trees. The kickoff will be a [Private Landowners HWA Workshop](#) on September 15 in Dunlap, TN. Great work, hemlock friends!

In other news, we are hoping for a report soon on the field trials of Scott Costa's aerial fungal spray conducted in Tennessee and Vermont. This is a biological control that uses an operational formulation of the insect-killing fungus *Lecanicillium muscarium* supported by microfactory formulation technology. Click here to [read more](#), and stay tuned...

## SGH helps USFS treat trees in National Forest

Through the Cost Share Agreement established between the U. S. Forest Service and Save Georgia's Hemlocks, we recently completed a second project helping the USFS treat hemlocks in the Long Creek Falls hemlock conservation area of the Chattahoochee-Oconee National Forest. Under the direction of Jim Wentworth and Brian Jackson, eight volunteers from SGH and four of our friends from Go Outdoors USA gathered at Three Forks in Fannin County and spent the better part of Saturday, June 23, treating three sites of pre-tagged hemlocks with Imidacloprid.

It was a beastly hot, muggy day, but everyone had a great time, shared a picnic beside Noontootla Creek, enjoyed good camaraderie, and came away feeling the satisfaction of having contributed in a meaningful way.

The next opportunity to participate in a treatment project on the National Forest will be our Hike and Help the Hemlocks event in the Three Forks area on September 29 (see page 2). Call 706-864-4787 to sign up.



Hardhat-adorned volunteers treated another 120 trees in Noontootla sites in Fannin County.

### Soil injectors can be repaired!

Last year we became aware that many of the Kioritz soil injectors in public and private hands are not functioning properly, i.e. not dispensing the proper amount of chemical solution, due to damaged or failed internal parts. Since neither the injectors nor replacement parts are available anymore, we asked for your help to find a highly skilled engineer who could repair them.

Thanks to long-time member Don Roberts for telling us of just the guy! Meet our new hero, Klaus Dern, who not only *can* do it but offered to do it at *very reasonable rates* as a charitable way of helping us.

Over the past 3 months, he has replicated and/or customized the needed parts to restore



Klaus Dern repairs soil injectors

nine injectors for SGH and the GA Forestry Commission to perfect working order.

If you have a Kioritz soil injector, refer to the updated "[Maintaining a Kioritz Soil Injector](#)" on our [Resources](#) page for how to test it properly.

**If you have an injector that needs repair, call 706-429-8010 to get on the schedule. Repairs are done in order of sign-up.**

### Hemlock Help Program expands to Dawson and Pickens Counties

HWA was found in Dawson County in 2007 and in Pickens in 2009. While the boundaries of the infested area have stayed about the same in Pickens since then, Dawson saw a substantial increase in HWA territory in 2011, and the infestation level in both counties has worsened.

In spring of 2012, we expanded our Hemlock Help Program into these counties with Hemlock Help Clinics and Facilitator Training Workshops. Six Facilitators (3 in each county) have been trained so far, and more are needed. If you might be interested in becoming a Facilitator, please review the "[Facilitator Job Description](#)" on our [Facilitators](#) page and then call 706-429-8010 for more information.

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## CALENDAR

### Hike & Help the Hemlocks 9/29

SGH and our good friends in the [Benton MacKaye Trail Association](#) are partnering again for our annual Hike and Help on **Saturday, September 29** in the Noontootla hemlock conservation area near Three Forks in Fannin County. We'll be joined by friends from Go Outdoors USA, Blue Ridge Mountain Trout Unlimited, North Georgia Mountains Master Naturalists, and others.



Long Creek Falls, GA  
(c) Mark Morrison

Those who want to hike *and* treat trees will start out first and work in teams to treat pre-tagged hemlocks with Imidacloprid. Those who just want a nice hike will start out a bit later, and we'll all come together at beautiful Long Creek Falls for a picnic and program of brief presentations by several interesting guest speakers.

**Save the date!** Maps and other details will be posted on the web site. The event is free, but registration is required. Call 706-429-8010.

### Foxfire Mountaineer Festival 10/6

SGH will have a booth at this one-day celebration of the rich heritage of the Southern Appalachian mountains. Hemlock saplings will be available for adoption, and we'll be sharing the story of helping the hemlocks at the Foxfire Museum & Heritage Center last fall. Location is Rabun Civic Center, Hwy 76W in Clayton, GA.



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### More help for Dawson & Pickens

Anyone who would like a free on-site consultation with a Facilitator to inspect your hemlocks and learn how you can save them is invited to call 706-429-8010 to schedule a visit.

The Georgia Forestry Commission office in Jasper has a Kioritz soil injector available for Pickens residents to borrow, and Dawson residents can borrow a GFC injector that is shared between Dawson and Lumpkin Counties. Check our [Contacts](#) page for the phone numbers of these and other locations where injectors can be borrowed for a refundable deposit.

Instructions for mixing and applying treatment products are posted on our [Resources](#) page along with lots of other useful information. And the Hemlock Help Line 706-429-8010 is available 7 days a week to answer questions and provide advice.

### Master Gardeners can earn hours

Clark MacAllister, Cooperative Extension Agent for Lumpkin and Dawson Counties, has let us know that Master Gardeners can earn service hours by attending educational events offered by SGH, by participating in SGH volunteer projects, or by helping others save their hemlocks. We believe this should hold true in other counties, but check with your CES agent.

There are many ways to help — presentations to school groups or garden clubs, potting saplings for adoption, helping on hemlock planting or treatment projects, hosting a Hemlock Help Clinic, and more. Please call 706-429-8010 to explore some of the fun ways you can earn MG service hours.

### GA Apple Festival 10/13 & 10/14

SGH will also have an information booth at the Apple Festival at the Fairgrounds in Ellijay. Six volunteers are needed each day for 3-hour shifts. This is a very important and well-attended outreach opportunity for us. We need 6 volunteers each day to help for 3-hour shifts. Please call 706-429-8010 if you can help.



David Armstrong, Helen Daniels, & Dan Johnson in the SGH booth at Apple Festival

### Imidacloprid and water safety

Many property owners and POAs have expressed concerns about possible contamination of ground water, wells, and waterways by Imidacloprid, and quite a few articles have been published on the subject. The concern is legitimate, and knowing when to worry is important, so we want to clarify a few points.

UGA researcher Mark Dalusky has shared: "Most of the [published] studies were conducted on agricultural soils and agricultural applications. Proper application in a forested setting is a horse of a different color entirely." Imidacloprid has a high binding potential to organic matter; agricultural soils typically have very low organic content in the 3-6% range. By contrast, where hemlock treatment is placed shallowly in the root mat within 12-18 inches of the trunk, the organic content is huge and the binding potential is very high.



Soil column studies by Bayer (yes I know, vested interest) in which the soil column mimicked the soil profile under forested conditions, showed that Imidacloprid moved very little from the point of injection (<20cm). The U. S. Forest Service conducted Environmental Analyses for both imidacloprid and (more recently) Dinotefuran. These studies are exhaustive and subject to critical external review. They supported the Bayer findings regarding leaching potential in forest soils.

A 2-year UGA study in 4 forested drainage areas produced similar results — no trace of chemical in stream water and no negative impact on the resident aquatic insects, which are very sensitive to Imidacloprid and therefore good indicators of contamination. The full text of [Mark Dalusky's comments](#) is posted in the Other Articles section of our [Resources](#) page.

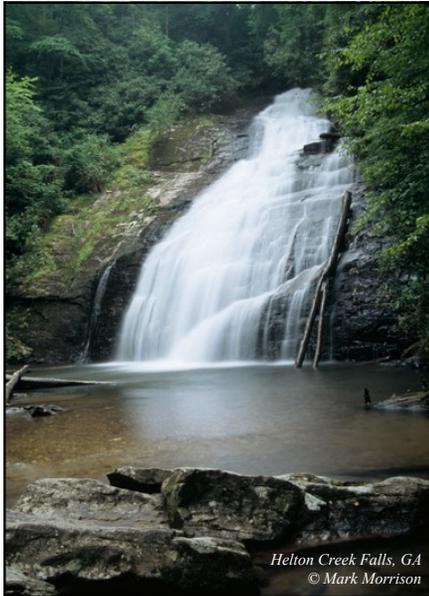
The keys to water safety are to follow the label and to use good common sense:

- Don't spray it when there is any breeze.
- Don't apply it directly to water or to areas where surface water is present.
- Don't apply it to soils that are very porous, sandy, gravelly, or cobbly, particularly if the water table is shallow.
- Don't apply it to soils that are water-logged, saturated, or frozen.

## FOCUS ON FACILITATORS

### Unique opportunities to serve

The recently implemented USFS-SGH agreement gives us a unique opportunity to actually treat hemlocks in designated areas of the National Forest. We've completed the first two projects in the Wolf Creek and Noontootla hemlock conservation areas and have two more scheduled for this year — our **Hike and Help the Hemlocks on September 29** (see page 2) and a project in the **Helton Creek area on November 10**.



Now that we have this much-sought-after opportunity, **we need ALL our Facilitators to participate in at least one public lands project each year**, so if you haven't already taken part, please plan to join us for the September or November project. It's a fun and rewarding way to help the Forest Service in their vital work for the hemlocks. Call 706-429-8010 to sign up.

### Liquid Imidacloprid products

Our spring newsletter recommended a liquid formulation of Imidacloprid (Amtide 2F) as more economical and easier to use than the 75 WSP formulation. We've now found 7 similar Imidacloprid liquids you may want to consider. All have 21.6% or 22.4% active ingredient, are sold by the gallon, and contain 2 pounds of Imidacloprid.

These are listed on our [Chemical Controls](#) page along with a link to their product labels and MSDS. We suggest you compare prices on several of them to make the most economical choice. Hemlock-specific instructions for mixing and applying these products can be found on the [Resources](#) page.

## What's new on the web site

[Hemlock Help](#) – new maps of HWA spread and SGH program counties.

[Contacts](#) – restored list of qualified local professionals.

[Resources](#) – updated Hemlock FAQs, Info for Property Owners, Program Description, Quick Reference Dosing Card, Chemical-Contacts-Sources, Helping on Public Lands, Maintaining a Kioritz Soil Injector, and Neighborhood Hemlock Help Planning Guide; new Introduction to Treating Hemlocks to be used with new Application Instructions for each type of product and each application method.

[Facilitators](#) – updated Facilitator Contact Lists, Letter to Retailers; new Becoming a Pesticide Professional, Caution Sign, Chemical Calculator, Facilitator Visit Checklist, Quick Reference Infestation Card, and Volunteer Project Report.

Because new information is continually being developed and treatment options and recommendations change frequently, our **web site is updated at least weekly**. Facilitators and anyone else wanting the most up-to-date information about hemlocks, adelgids, and treatments should always go to the web site and download the newest material. The revision date is shown for each document.

## Farewells and welcomes

We bid a fond farewell this month to Bonnie Mandel who has been our Treasurer for the past two years and is now moving with her husband to the state of Washington. Farewell also to Doug Richey who has been on our Board since last July and is now moving on to serve on a Board related to his dental profession but will continue to be Lead Facilitator in White County. We thank you for your service and wish you both the best.

We are excited to welcome to Buz Stone to our Board. He has a wealth of experience in community leadership, a talent for mobilizing others, and a true heart for the hemlocks.

Welcome also to Susan Chapman who has generously agreed to serve as our new Secretary. An Atlanta native, she now lives in Sautee Nacoochee, works as a naturalist at Unicoi State Park, and is a SGH Facilitator.

We still have one open seat on our Board and are also seeking someone with an accounting background to serve as Treasurer. If you share our passion for the hemlocks and want to help, please call 706-429-8010.

For other news from our annual meeting, please read the [7-8-12 Meeting Notes](#) on the [About Us](#) page.

## Other insects attack hemlocks

As if woolly adelgids weren't enough for hemlocks to deal with, there are several other insect pests that attack them. Three of the most common ones are described below.

**Spruce spider mite** feeding causes color changes in the foliage of individual branchlets, giving needles a mottled appearance, then turning them yellow and finally bronze. Fine silk webbing may surround the needles and twigs in heavy populations. Damage is most noticeable in the heat of summer.



**Rust mites** feed on the upper and lower surface of the needles, causing the foliage to turn bluish and then yellow before dropping prematurely. New growth at the branch tips usually is not affected, but older foliage farther back on the branch will show feeding damage or be bare from needle drop, especially noticeable in spring.



**Elongate hemlock scale** populations build slowly on healthy trees but much more quickly on stressed ones. Feeding by elongate scale on the lower surface of the needles causes foliage to turn yellow and drop prematurely. Dieback of major limbs progresses from the bottom of the tree upwards.



For more on identifying and controlling these and other insect pests, see ["Insect Pests of Hemlocks"](#) in the Other Articles section of the [Resources](#) page.

Our next newsletter will include an overview of fungal diseases of hemlocks.