

## INFORMATION STATEMENT:

Updated 5/4/15

### SOIL INJECTION OF IMIDACLOPRID ON HEMLOCKS POSES MINIMAL RISK TO HONEYBEES

Over the past decade much information and misinformation has been published about Colony Collapse Disorder, a mass die-off of honeybees, and possible links to climate change, habitat destruction, fungal infections, viruses, and a number of pesticides (including Imidacloprid). And while scientists still don't have all the answers, several new studies have addressed concerns about neonicotinoid pesticides, the class to which Imidacloprid belongs.

A decline in the honeybee population and the pollination activities they perform could have serious implications for food crops and entire ecosystems. Because Save Georgia's Hemlocks (SGH) is very conscientious about protecting not just the hemlocks but *all* of the environment, and because imidacloprid is one of the most widely recommended products for treating hemlocks for the hemlock woolly adelgid (HWA), the invasive insect that is killing these trees, we want to clarify some important points based on information provided by the U. S. Forest Service and Mark Dalusky, Research Coordinator in Forest Entomology, University of Georgia.

The key factor in the safety of Imidacloprid use is how and where it's applied. Here are the dangers:

- \* If it is applied to plants from which honeybees collect pollen, it can harm the bees.
- \* If it is used as a foliar spray on tall hemlocks or on any size hemlocks when there's a breeze, the material can drift through the air onto honeybees or onto non-target plants the bees collect pollen from.
- \* If the dry powder is plowed into agricultural fields or crop seeds coated with it are planted by pneumatic drilling machines, particles of insecticide may be released into the air where it can be ingested by the bees or drift onto plants they collect pollen from.

But here is the good news. SGH has been advised that applying Imidacloprid by soil injection or soil drench to treat hemlocks poses minimal risk to honeybees. A mild solution is placed at a depth of 4 - 6 inches below the surface of the soil close to the base of the tree where it is inaccessible to anything or anyone above ground and is not dispersed into the air, onto the surface of non-target plants, or into the root zone of flowering trees or shrubs. It binds quickly to the organic matter in the soil and only moves into the surrounding soil a few inches from each placement point. The treatment is taken up by the tree's roots and distributed through all parts of the tree for total systemic protection. And since hemlocks are pollinated by wind and not honeybees, soil-applied Imidacloprid is unlikely to affect honeybees or other insects that pollinate flowering plants.

Save Georgia's Hemlocks shares the concerns about possible effects of Imidacloprid on our environment and recommends using extreme care in its application. And while we sincerely hope for, and actively support, the development of non-chemical remedies (such as the predatory beetles being raised in labs for release on public lands, cross-breeding of hemlocks for HWA resistance, and other methods being researched), at present the only control option that provides both a high degree of reliable effectiveness and long-term protection for hemlocks is treatment with Imidacloprid or other similar systemic products. We recognize that chemical treatment is a only temporary "band-aid," but we believe it will buy these magnificent trees valuable time until another viable long-term solution can be implemented on a sufficiently wide scale.

Note that the use of any chemical in a manner that is inconsistent with the product label can cause harm and is prohibited. It is the user's responsibility to read and follow the product label instructions.

Anyone who has questions about treating hemlocks is welcome to call the Hemlock Help Line<sup>SM</sup> 706-429-8010 or visit [www.savegeorgiashemlocks.org](http://www.savegeorgiashemlocks.org).