

# Hemlock Facts and Fiction

## Part 4: Safety Concerns

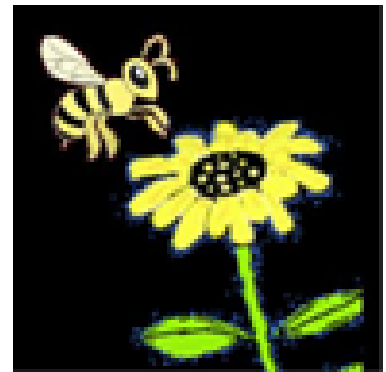
**Fiction:** The treatment products are dangerous to people and the environment.

**Fact:** Neither Imidacloprid nor Dinotefuran is a restricted use product, a designation by the EPA indicating some level of danger that justifies restricting purchase or use to professional pesticide applicators. The misuse of any chemical can be harmful; however, if you read and follow the labeling, you can treat your trees or have them treated with an appropriate systemic product without endangering yourself, children, pets, wildlife, beneficial insects, water systems, or the environment. If the treatment has been sprayed onto the foliage, sprayed onto the bark of the trunk, or applied as a soil drench, you should give time for the material to dry before allowing children or pets into the area; normally an hour or less.

**Fiction:** Imidacloprid is responsible for honeybee hive collapse.

**Fact:** There are several chemicals that, if misused, can harm honeybees, and nicotinoids such as Imidacloprid and Dinotefuran fall into that category.

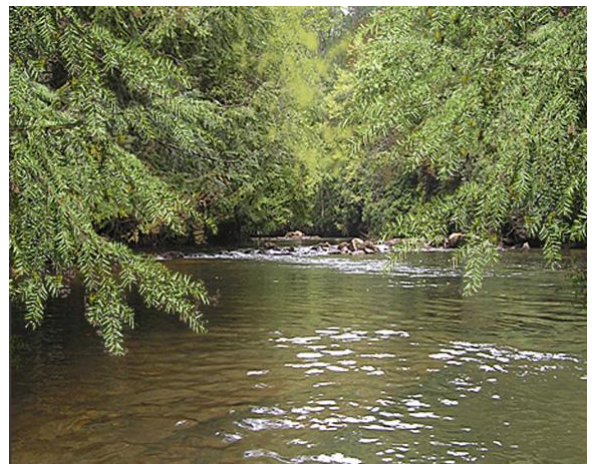
The key factors in the safe use of these products are how and where they're applied. If they're sprayed into the air on a breezy day or the dry powder is plowed into fields or seeds coated with it are planted by pneumatic drilling machines, particles of insecticide may be released into the air where they can be ingested by bees or drift onto plants they pollinate.



SGH has been advised by experts that soil injected Imidacloprid or Dinotefuran to treat hemlocks poses minimal risk to honeybees. A mild concentration is placed in the soil at a depth of 4 - 6 inches close to the base of the tree, so it's not dispersed into the air, onto the surface of plants, or into the root zone of flowering trees or shrubs. The material is taken up by the tree's roots and distributed through the tree's tissue for total systemic protection. And since hemlocks are pollinated by wind and not honeybees, soil injected nicotinoids are unlikely to affect them.

**Fiction:** Imidacloprid is too dangerous to use on trees near waterways, wells, veggie gardens, or other sensitive areas, so hemlocks in such locations should just be cut down.

**Fact:** It is right to be concerned about water quality and safety, but knowing when to worry is important. There is no set-back specified on the product labels. Retired UGA researcher Mark Dalusky says that in forested or residential settings where treatment is placed shallowly in the root mat within a foot of the tree trunk, the organic content is huge and the binding potential is very high. During a 2-year study conducted jointly by the U. S. Forest Service and UGA in 4 forest drainage areas, it was found that Imidacloprid binds quickly to the organic matter in forest soils and only moves a few inches from each injection point; there was no trace of chemical in stream water and no negative impact on resident aquatic insects, which are very sensitive to Imidacloprid and therefore good indicators of contamination.



**Fiction:** Safari is more dangerous to use than Imidacloprid.

**Fact:** Safari is more soluble than Imidacloprid but not more dangerous. If a tree needs Safari but soil composition or proximity to a sensitive area makes soil application inadvisable, you can apply it carefully to the trunk so it never enters the soil.

**Fiction:** There's no way to know what's safe and what's not.

**Fact:** The product label and the Safety Data Sheet (SDS) for each product provide the necessary safety guidelines; a link to these documents is on our [Chemical Controls](#) page. Users should read and heed this information in combination with a healthy dose of good old fashioned common sense. Here are some basic rules:

- \* Don't spray pesticide when there is a breeze.
- \* Don't apply directly to water or where surface water is present
- \* Don't apply to porous, sandy, gravelly, or cobbly soils, particularly if the water table is shallow.
- \* Don't apply to soils that are water-logged, saturated, or frozen.
- \* Call the Hemlock Help Line 706-429-8010 if you have questions.