

A homeowner's guide to Imprelis herbicide injury to landscape trees

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What is Imprelis™?

Imprelis is a relatively new selective herbicide intended for use by lawn care professionals. It is part of a group of selective herbicides designed to control broadleaf-weeds in turf by interfering with a plant's normal hormonal balance.

Why would a lawn service or landscaper use Imprelis?

Imprelis was developed and marketed to provide control of several, difficult to control turf weeds, such as ground ivy and wild violet. It works by both direct uptake through the foliage as well as root uptake and provides good residual control.

What kind of injury to landscape trees has been observed following Imprelis application?

Homeowners, lawn service operators and others have observed browning of shoots and needles and twisting and stunting of shoots, especially near tops of trees (photos 1-3). Symptoms are usually most severe on current year (outermost or topmost) growth (photo 4). **Unlike most conifer insect and disease problems, Imprelis damage occurs rapidly - usually within two to three weeks of application.** The most commonly affected trees are Norway spruce, Colorado blue spruce and eastern white pine. Firs and yews may also be affected.

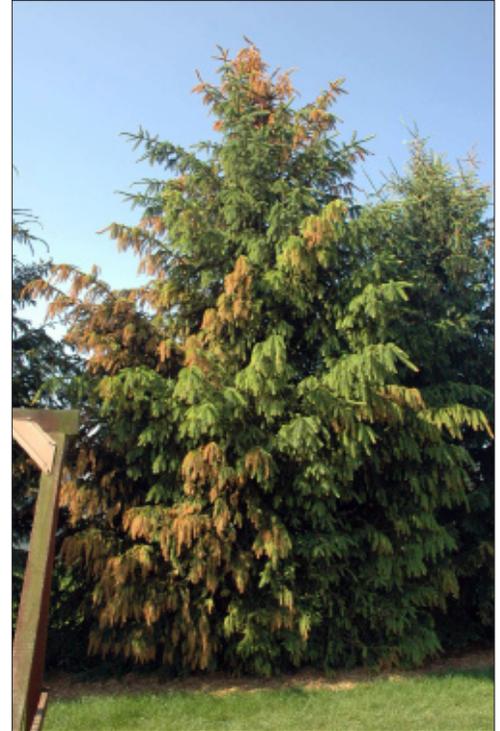


Photo 1. Needle browning.



Photo 2. Distortion of terminal growth.

If I see damage, did my applicator do something wrong?

Not necessarily. After tree damage reports began to come in, the product manufacturer issued a statement on June 17, 2011 cautioning applicators "do not apply Imprelis where Norway spruce or white pine are present on, or in close proximity to, the property to be treated." However, there was no specific caution on the original product label regarding the susceptibility of pines, spruce or other conifers to Imprelis.

How widespread is the problem?

University Extension websites from Kansas to Pennsylvania have reported injury to conifers associated with Imprelis application to turf and lawns.

Can trees recover from Imprelis injury?

Herbicide injury to trees can often be dramatic, but trees can often recover over time. Based on experience with other forms of herbicide injury and other types of environmental damage, trees with minor browning (less than 1/3 of crown affected) on new growth will likely be able to push new growth and eventually "grow out" of the damage, though this can take one

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or two growing seasons. Trees with distorted tops may resume growth, but will likely require corrective pruning to maintain desirable form and symmetry.

Can anything be done to help trees recover?

The types of trees that are most commonly affected typically grow vigorously and are therefore good candidates for recovery from minor injury. Reduce drought stress by watering during dry periods. Avoid over-watering that causes water-logging. Fertilization is probably not necessary unless a professional tree care provider determines a nutrient deficiency exists.

Why does the type of injury vary so much?

Suspected Imprelis-related injury is most severe in current-year's growth, therefore young trees and the tops of older trees, which have a relatively high proportion of new growth, show the greatest degree of injury (photo 5). Trees in landscape beds or other buffers typically show less damage than trees that are completely surrounded by turf.

Where can I get more information?

Since our experience with Imprelis is very short, new information is coming forward rapidly. Your turf and landscape professional is your "point person" for developing information. Michigan State University Extension, state agencies and professional trade associations are working to keep your local professional up to date with the most current information. Updates are available at MSU Extension News for Agriculture at news.msue.msu.edu.



Photo 3. "Spiral" injury pattern often indicative of problems related to root uptake.



Photo 4. Severely affected current-year growth with little effect on previous-year's needles.



Photo 5. Injury can vary depending upon tree size, age and timing of growth.

Published July 2011

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