

Purdue Plant & Pest Diagnostic Laboratory

A Homeowner's Guide to Imprelis® Herbicide Injury in the Landscape



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Adapted from a document by Drs. Bert Cregg and Kevin Frank, Michigan State University, used by permission.

You may have read a newspaper article or have seen a story about an herbicide called Imprelis®. Here are some answers to frequently asked questions about this product.

What is Imprelis®?

Imprelis® is a relatively new selective herbicide which was first sold in October of 2010. It is part of a group of selective herbicides designed to control broadleaf-weeds in turf.

Why was Imprelis® used by so many turf professionals?

Imprelis® was developed and marketed to provide control of several difficult to control turf weeds including ground ivy (creeping Charlie) and wild violet and was labeled for very low use rates (3.0 to 4.5 fluid ounces per acre). These characteristics and its low toxicity to mammals made it a desirable choice for turf professionals.

How does Imprelis® work?

The herbicide has both foliar and soil activity and is absorbed by the target plant's leaves, stems, and roots. Since Imprelis® remains active in the soil, it can provide residual control of weeds.

What Type of injury symptoms have been observed on landscape after Imprelis® applications?

Although Imprelis® was registered for control of broadleaf weeds in turf, some homeowners and lawn care operators started

observing injury on trees and some ornamentals in their landscapes this spring (late May and early June) in the turf areas where it had been applied



last fall or this spring. Symptoms observed include dieback; brown and twisted shoots, leaves and needles; especially near tree tops (photos 1-3) and were most severe on the current year's growth — the outermost or topmost growth (photo 4). Unlike most conifer insect and disease problems, Imprelis® injury occurs rapidly — usually within two to four weeks of application. The most commonly affected trees to date have been Norway spruce, Colorado blue spruce, and eastern white pine; however, firs, yews, arborvitae and some deciduous trees and shrubs have also been affected.

If I see damage, did my lawn care professional do something wrong?

Investigations by the Office of Indiana State Chemist (OISC) have found that damage observed is not from applicator error or misapplications by the lawn care professional during the application process. It appears from the numerous investigations being conducted that the herbicide was applied to lawns per label instructions. After tree damage was reported, DuPont issued a statement on June 17, 2011 that cautioned 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, the original product label did not specify this caution to applicators.



How widespread is the problem?

To date, university Extension services in 22 states from Kansas to Pennsylvania have reported injury to conifers associated with Imprelis® application to turf and lawns. Although damage is widespread, it is also inconsistent as some trees are damaged more than others and researchers are still trying to learn more.

Will trees recover from Imprelis® injury?

Based on experience with other forms of herbicide injury and other types of environmental damage, trees that have minor browning (less than 1/3 of crown affected) on new growth will likely recover. However, recovery can take one or two growing seasons. Trees with distorted tops may resume growth, but will likely require corrective pruning to maintain desirable form and symmetry. Severely distorted and damaged trees can die. Norway spruce appears to be the most susceptible species. Initial observations lead us to conclude that many Norway spruce may die or have died as a result of herbicide injury, while other species will likely recover. Consult with your lawn care operator with regard to proper disposal of dead or dying trees (chipping and mulching of affected trees is not recommended).

Can anything be done to help trees recover?

The trees that appear to be most commonly affected by this injury typically grow vigorously, which makes them good candidates to recover from minor injuries. If you suspect your trees are injured, reduce drought stress by watering them during dry periods. Avoid overwatering, which causes water-logging. Fertilization of affected trees and shrubs during 2011 is not recommended.

Why does the type of injury vary so much?

Imprelis®-related injuries are most severe in the current-year's growth. That means the greatest degree of injury can be seen in young trees and on the new growth of vigorous older trees. Trees growing in landscape beds or other buffers typically show less damage than trees that are completely surrounded by turf.

Where can I get more information?

New information about the degree and extent of this problem is rapidly becoming available and information will be posted for interested parties on at the Plant and Pest

Diagnostic Laboratory website (<http://www.ppd.purdue.edu/PPDL/>) and on the OISC website (<http://www.isco.purdue.edu>). If you suspect Imprelis injury to trees and/or



ornamentals on your property, contact your lawn care professional to see if this herbicide was applied to your lawn. If your lawn was treated with Imprelis, continue to work with and seek information from your lawn care professional. DuPont (<http://www.imprelis-facts.com/>) has initiated a claims process to compensate homeowners for damaged trees. **The deadline for this claims process is November 30, 2011** so please contact your lawn care provider well before this deadline if you suspect Imprelis® injury in your landscape. Purdue University and the Office of the Indiana State Chemist are working closely with lawn care professionals to keep them up-to-date with the latest findings and information on this issue.