

# CASE SUMMARY

Case #2011/1259

**Complainant:** Tim Hughes  
Victory Field  
501 West Maryland  
Indianapolis IN 46225  
317-938-3356

**Applicator:** Jerry White  
Brickman Group  
10720 Andrade Drive  
Zionsville, IN 46077  
317-714-0860

Certified Applicator  
Licensed Business

1. On July 20, 2011, I, Agent Joe Becovitz of the Office of Indiana State Chemist (OISC), performed an investigation at Victory Field in response to a claim of injury/damage to non-target trees and shrubs possibly resulting from exposure to the herbicide Imprelis. I observed the following during my on-site investigation:
  - a) Some tip dieback and browning of needles was noted on pine trees. There was no twisting and curling of new growth (See Figures 1 and 2).
  - b) The leaves on ginkgo trees had browned and yellowed edges (See Figures 3 and 4).
  - c) The leaves on red maple trees had interveinal chlorosis (See Figures 5 and 6).
2. I photographed the site documenting the symptoms I observed:



Figure 1



Figure 2



Figure 3



Figure 4



Figure 5



Figure 6

3. I collected the following vegetation samples from visibly impacted non-target vegetation, as described in paragraph #1, for examination by the Plant & Pest Diagnostic Lab (PPDL) at Purdue:
  - a) Pine
  - b) Ginko
  - c) Red maple
4. I collected the following environmental samples for chemical analysis by the OISC Residue Lab:
  - a) Injured ginko foliage
  - b) Chlorotic red maple foliage
  - c) Soil composite from the southwest corner of the treated area.
5. The report from the PPDL for the samples submitted indicates,

Ginko:

*There was no evidence of significant mite or insect injury or disease on the sample submitted. The sample (and pictures) submitted show symptoms that are associated with injury caused by synthetic auxin (growth regulator type) herbicides. Typical symptoms caused by these herbicides can include epinasty (twisting and curving) of the leaves or needles, shoot and shoot tip; leaf cupping which can be upward or downward, and in extreme cases, new leaves can be irregular in size and shape (usually smaller than normal) and have abnormal leaf margins. When injury results in new shoot dieback in conifers there will be no regrowth this season, and with certain species, such as Norway spruce, the entire tree can die.*

Maple:

*Did the tree show similar yellowing last year? Yellowing between the veins and necrosis of some leaves, as shown in this sample, can be caused by Iron or Manganese deficiency in high pH soils. This type of yellowing would gradually become a problem over several years in established trees in undisturbed sites. A soil test sent to a commercial testing lab along with a tissue sample should confirm or rule this out. Also a foliar spray containing these nutrients would provide temporary green up of the leaves if this were the only problem. Herbicide injury can't be ruled out in this case since synthetic auxin herbicides may cause similar symptoms.*

Pine:

*There was no evidence to suggest herbicide injury on this sample. The tip dieback on the sample submitted is caused by the fungus Diplodia (Sphaeropsis). Austrian, Scots, mugo and red pine can be attacked Diplodia (Sphaeropsis) tip blight, although the disease is most common in the landscape on Austrian pine. On Austrian pine symptoms develop on trees after cone-bearing age with the first spring symptoms appearing in late April to early May. Needles and shoots are stunted and killed very quickly and shoot tips are often quite resinous. Stressful site and environmental growing conditions such as drought predispose 2-needled pines to infection by Diplodia."*

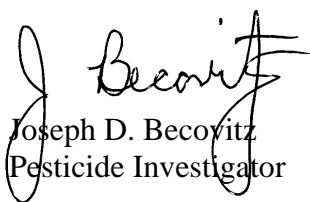
6. According to the report from the OISC Residue Lab, the following levels of aminocyclopyrachlor (active ingredient in Imprelis Herbicide) were found in the samples referenced in item #4:

- |   |         |
|---|---------|
| a) Injured ginko foliage                                | 150 PPB |
| b) Chlorotic red maple foliage                          | BDL     |
| c) Soil composite from southwest corner of treated area | 69 PPB  |

PPB=Parts Per Billion

BDL=Below Detection Limits

7. According to the application information collected from the applicator, Imprelis Herbicide (EPA Reg. No. 352-793) was applied on May 27, 2011, at the rate of 3.3. oz /acre using a wand type sprayer.



Joseph D. Becovitz  
Pesticide Investigator

Date: December 15, 2011

**Disposition:** No violation of the Indiana Pesticide Use and Application Law was documented against the pesticide applicator. Effective September 15, 2011, the Indiana registration for Imprelis Herbicide, EPA Reg. #352-793, was cancelled because it was determined by OISC that the product is “misbranded” (it bears label directions that are inadequate to prevent unreasonable adverse effects to non-target vegetation).



George N. Saxton  
Compliance Officer

Final Date: January 11, 2012