## **CASE SUMMARY**

Case#2011/1267

**Complainant:** Jon Garber

Warsaw Parks Department

117 E. Canal St.

Warsaw, Indiana 46580

574-276-4756

- 1. On July 19, 2011, I, Agent George N. Saxton of the Office of Indiana State Chemist (OISC), performed an investigation at the Warsaw Parks Department in response to a claim of injury/damage to non-target trees and shrubs possibly resulting from exposure to the herbicide Imprelis. A Notice of Inspection was issued to parks department employee and applicator, Larry Plummer. I observed the following during my on-site investigation:
  - a) Curling and browning of tips of needles (see figures #1, 2, 3 & 4).

2. I took the following photos depicting injured/damaged vegetation:





Figure #3



Figure #2



Figure #4

- 3. I collected the following vegetation samples from visibly impacted non-target vegetation as described in paragraph #1 for examination by the Purdue Plant Pest Diagnostic Laboratory (PPDL).
  - A. Spruce

4. According to a report from the PPDL, "There is no evidence of disease on the spruce sample submitted. Some minor feeding damage from spruce spider mite was observed on inner, older needles.

Our diagnosis of the possibility of potential damage from herbicide injury is based on visual assessment of samples and images submitted to our lab and whether the symptoms observed on non-target plants are typical of injury that could be caused by exposure or uptake of the herbicides purportedly applied to the area.

The sample submitted showed symptoms that are typically found to be associated with injury caused by a synthetic auxin (growth regulator type) herbicide. Typical symptoms caused by these herbicides can include epinasty (twisting and curving) of the leaves or needles, shoot and shoot tip; dieback of distorted shoot tips; 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. If injury results in new shoot dieback in conifers there will be no regrowth this season."

--Gail Ruhl; Plant Disease Diagnostician.

5. According to the application information collected from the applicator Imprelis Herbicide (EPA Reg. No. 352-793) was applied May 4, 2011, at the rate of 4 oz/acre using a 50 gallon boom application sprayer; no application was made to the soil within the drip line of any of the trees or ornamentals; no application was made directly to any exposed roots of any trees or ornamentals and no grass clippings were used.

**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).

Final Date: October 20, 2011

George N. Saxton

Compliance Officer