## **CASE SUMMARY**

Case #2011/1336

Complainant:	Craig Norman 1805 Eagle Trace Dr. Greenwood, IN 46143 317-888-1849	
Applicator:	David Ray Cragen Lawn Care, LLC 2595 Endress Place Greenwood, IN 46143 317-509-1364	Licensed Applicator Licensed Business

- 1. On August 1, 2011, I, Agent Jay Kelley of the Office of Indiana State Chemist (OISC) performed an investigation at the complainant's property 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 Craig Norman. I observed the following during my on-site investigation:
  - a) Top of Spruce is distorted and brown (see figure #1).
  - b) Some browning on tips (See figure #2).
  - c) Redbud tree leaves are cupped and stunted (See figure #3 and #4).
- 2. I took the following photos depicting injured/damaged vegetation:



Figure #1-Spruce



Figure #3-Redbud



Figure #2



Figure #4-cupping/stunted

- 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*
  - b) Redbud
- 4. At the site I collected the following environmental samples for chemical analysis by the OISC Residue Laboratory:
  - a) Vegetation from Redbud tree.
- 5. According to a report from the PPDL, "There was no evidence of significant mite or insect injury or disease on the samples submitted. Some passalora leaf spot was present on the redbud but causing only cosmetic damage, not contributing to the problem. The spruce had some spider mite injury on older needles but no active mites or eggs. The samples (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 and 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."
- 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) Vegetation from Redbud tree BDL BDL=Below Detection Limits BDL
- 7. According to the application information collected from the applicator Imprelis Herbicide (EPA Reg. No. 352-793) was applied on May 24, 2011, at the rate of 4.5 oz/acre using hand held ground spray equipment; 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.

eller Paul J. Kellev

Date: August 24, 2011

Paul J. Kelley Pesticide Investigator

**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: September 19, 2011