CASE SUMMARY

Case #2011/1457

Complainant: Kevin Ryan
776 N. Raven Field Ct
Greenfield, IN 46140
317-691-9809

Applicator: Kevin Ryan
776 N. Raven Field Ct
Greenfield, IN 46140
317-691-9809

1. On August 12, 2001, 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 Kevin Ryan. I observed the following during my on-site investigation:
   a) Tips and top of spruce tree are brown and distorted (see figure #1& #2).
   b) Spruce showing areas of brown from bottom to top (see figures #3).

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


Figure #1


Figure #2

Figure #3

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. I collected the following environmental samples for chemical analysis by the OISC Residue Laboratory:
   a) Evergreen (Spruce)
   b) Soil
   c) Soil from drip line

5. According to a report from the PPDL, "*There wasnoevidence of significant mite or insect injury or disease on the samples submitted. The pictures of the blue spruce suggest the tree may have some interior needle damage from spruce mites and/or needlecast disease but these problems are not causing the dieback of new growing tips. The sample (and pictures) submitted show symptoms that are associated with injury caused by 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.*"

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 sample from evergreen (Spruce) *72 PPB*
    b) Composite soil sample from turf *0.57PPB*
    c) Composite soil sample from drip line *BDL*

    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 7th, 2011, at the rate of04.5oz / 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.

Paul J. Kelley III

Paul J. Kelley Date: November 9, 2011
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

George N. Saxton Final Date: November 22, 2011
Compliance Officer