CASE SUMMARY

Case #2011/1355

Complainant: Michelle Irwin
4326 E. CR 300 S.
Greencastle, IN 46135
765-526-2242

Applicator: Dennis Bowman — Certified Applicator
Bowmans Pro Turf — Licensed Business
5121 N. Murphy Rd.
Brazil, IN 47834
812-448-1852

1. On August 1, 2011 I, Agent Kevin W. Neal 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 possibly resulting from exposure to the herbicide Imprelis. A Notice of Inspection was issued to Michelle Irwin. I observed the following during my on-site investigation:
   a) Tops of trees were curled (see figures one, two, three)
   b) Spiraling of dead areas (see figures one, two, three)
   c) Discoloration of Maple Tree (see figure four)

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


Figure One


Figure Two


Figure Three

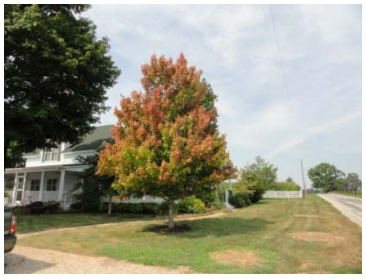
Figure Four

3. I collected the following vegetation samples from visibly impacted non-target vegetation for examination by the Purdue Plant Pest Diagnostic Laboratory (PPDL).
    a) Spruce
    b) Maple

4. At the site I collected the following environmental samples for chemical analysis by the OISC Residue Laboratory:
    a) Maple Sample Irwin (MS-1)

5. According to a report from the PPDL, "*<u>Spruce</u>: 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. <u>Maple</u>: Cause of the discoloration can't be determined on the basis of visual symptoms."*

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) *MS-1 Maple Sample Irwin* *BDL*

BDL = Below Detectable Limits

7. According to the application information collected from the applicator, Imprelis Herbicide (EPA Reg. No. 352-793) was applied at the rate of 4 oz per acre with hand held application device in spot spray application.

Kevin W. Neal
Pesticide Investigator

Date: September 7, 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: September 15, 2011