

## CASE SUMMARY

Case #2011/1163

**Complainant:** Gabe Smoot  
Ulen Country Club  
100 Country Club Lane  
Lebanon, Indiana 46052  
765-891-2468

**Applicator:** Gabe Smoot  
Ulen Country Club  
100 Country Club Lane  
Lebanon, Indiana 46052  
765-891-2468

Licensed Applicator

1. On July 6, 2011, I, Agent Kevin Gibson 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 several non-target trees possibly resulting from exposure to the herbicide Imprelis. A Notice of Inspection was issued to Gabe Smoot. I observed the following during my on-site investigation:
  - a) Spruce trees with browning needles (see figures #1, #2, #3, #4).
  - b) Top of white pine trees with twisting and curling tips (see figures #5, #6)
2. I took the following photos depicting injured/damaged vegetation:



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 Purdue Plant Pest Diagnostic Laboratory (PPDL):
  - a) Spruce
  - b) White Pine
4. I collected the following environmental samples for chemical analysis by the OISC Residue Laboratory:
  - a) Vegetation sample from 10<sup>th</sup> tee box
  - b) Vegetation sample from 11<sup>th</sup> fairway
  - c) Vegetation sample from 17<sup>th</sup> fairway
  - d) Soil sample from yard inside drip line
  - e) Soil sample from yard outside of drip line

*NOTE: A decision was made by OISC management to not analyze these environmental samples. That decision was based on: 1) the large number of similar cases being investigated by OISC at the same time; 2) the large number of similar environmental samples already analyzed that had produced applicable representative results consistent with the presence of visible exposure symptoms; 3) the expertise developed by OISC investigators through repetition to identify Imprelis exposure symptoms without chemical confirmation.*

5. According to a report from the PPDL, *"No infectious disease was found to be associated with the dieback and distortion observed on the new growth of the spruce sample submitted. Spruce spider mites were confirmed on older, stippled, brown needles within the inner parts of the branch sample. 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.*
6. According to the application information collected from the applicator Imprelis Herbicide (EPA Reg. No. 352-793) was applied on April 15, 2011, at the rate of 4.5 oz. / acre on 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.



Kevin W. Gibson  
Pesticide Investigator

Date: September 30, 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: October 20, 2011