CASE SUMMARY

Case #2011/1127

Site: Summer Ridge

Midnight Pass & North CR 600E

Brownsburg, IN 46112

Applicator: Craig Thompson Certified Applicator

Phil Tapp Registered Technician

Business: Allen & Scott Enterprises Licensed Business

> 136 Casco Drive Avon, IN 46123

- 1. On July 7, 2011, I, Agent Andy Roth of the Office of Indiana State Chemist (OISC), performed an investigation at the above listed sub-division in response to a claim of injury/damage to non-target trees possibly resulting from exposure to Imprelis Herbicide. I observed numerous Norway and blue spruces exhibiting distorted and discolored new growth and tip dieback. Pines showed minor tip distortion and stunting of new needles.
- 2. I photographed the site documenting the symptoms I observed:





Figure 2



Figure 3



Figure 4

3. I collected plant samples from Norway and blue spruces exhibiting symptoms and submitted them to the Plant & Pest Diagnostic Lab (PPDL) at Purdue for assessment.

- 4. I collected Norway spruce foliage and a composite soil sample from the treated turf area for chemical analysis by the OISC Residue Lab.
 - NOTE: A decision was made by OISC management to not analyze the environmental samples in this case. That decision was based on: 1) the large number of similar environmental samples already analyzed that had produced representative results consistent with the presence of visible exposure symptoms; 2) the expertise developed by OISC investigators through repetition to identify Imprelis exposure symptoms without chemical confirmation; and 3) the large number of similar cases being investigated by OISC at the same time.
- 5. The report from the PPDL for the samples submitted states, "No infectious disease or insect pest was found to be associated with the dieback and distortion observed on the spruce sample submitted. The sample exhibited symptoms that are typically found to be associated with injury that can be 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; 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. The prospects for recovery from herbicide damage depends on the dose and the extent of the damage. Don't give up on herbicide damaged trees and shrubs too quickly. Here are some suggestions for managing stress to help allow the tree to recover as much as possible:
 - Make sure the tree has plenty of water this summer: Irrigate so the tree gets an inch of water each week from rain and/or irrigation. This will reduce stress on the tree and help wash remaining herbicide down past the root zone.
 - Don't prune dead wood until you know the extent of the dieback, probably about a year. Early pruning can stimulate new growth and increase stress. The exception to this is to remove dead branches that might be a hazard if they fall.
 - Don't fertilize affected trees this year or next year. Again, stimulating new top growth too soon is adding stress to the tree."

Date: October 27, 2011

Final Date: November 15, 2011

6. According to application information collected from Allen & Scott, Craig Thompson and Phil Tapp applied Imprelis Herbicide (EPA Reg. No. 352-793) to the common-area turf on May 14, 2011 at a rate of 0.1oz/1,000 square feet using ride-on application equipment.

Andrew R. Roth

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