CASE SUMMARY

Case#2011/1124

Site: Royalwood

118th Street & Olio Road

Fishers, IN 46037

Applicator: Scott Mozdian

Phil Tapp

Business: Allen & Scott Enterprises

136 Casco Drive Avon, IN 46123 317-339-8536 Certified Applicator Registered Technician Licensed Business

1. On July 5, 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 and possibly resulting from exposure to Imprelis Herbicide. Numerous Norway spruces had distorted new growth and extensive tip dieback and browning. Willows were defoliating and mature pines had some needle browning.

2. I photographed the site documenting the symptoms I observed:



3. I collected plant samples from Norway spruce and pine which were 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, "Diplodia (Sphaeropsis) Tip Blight, a fungal disease, was confirmed to be associated with the tip dieback on the pine sample submitted. I found no infectious disease or insect pest to be associated with the distortion and dieback on the spruce sample submitted. The spruce sample submitted exhibits 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 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."
- 6. According to application information collected from Allen & Scott, Scott Mozdian and Phil Tapp applied Imprelis Herbicide (EPA Reg. No. 352-793) on April 29, 2011 at a rate of 0.1oz/1,000 square feet using ride-on, ground 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).

Compliance Officer

Final Date: November 21, 2011

Date: October 27, 2011