CASE SUMMARY

Case #2011/1582

Complainant: Sherry Vaughn
2810 N. CR675W
Shipshewana, IN 46565

Applicator: Chad Miller — Certified Applicator
Precision Turf Care — Licensed Business
7330 W. CR250N
Shipshewana, IN 46565
260-499-0132

1. On August 25, 2011, I, Agent Andy Roth of the Office of Indiana State Chemist (OISC), performed an investigation at the property listed above in response to a claim of injury/damage to non-target shrubs possibly resulting from exposure to Imprelis Herbicide. At the site, I observed several yews in beds next to the house exhibiting distorted tips, brown needles and tip dieback; a mugo pine showed less severe symptoms.

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

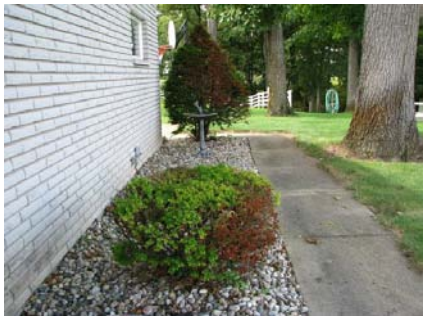
Figure 1


Figure 2

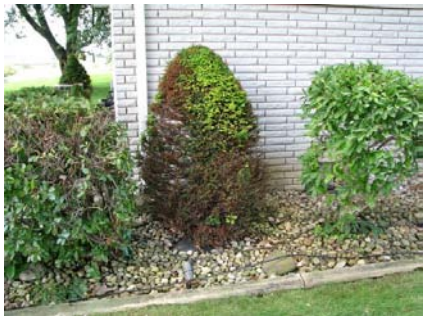
Figure 3


Figure 4

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

4. The report from the PPDL for the samples submitted indicates, "*Yew: There was no evidence of significant mite or insect injury or disease on the sample submitted. The sample and pictures show curling, twisting and dieback of most growing points was observed, suggesting possible herbicide injury. However, root uptake of the herbicide would be somewhat less likely in areas bordered by both beds and walk. Residue testing from plants in this area may help identify cause. Other stress factors may also be involved, such as damage to roots from excess water draining in this area. The dwarf spruce located between two dying yews remains unaffected. This makes it more difficult to explain the damage by herbicide injury alone. 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 color, 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. Mugo pine: Pine needle scale was present but is not contributing significantly to dieback. Cause of symptoms could not be determined. Suggest checking for root rot if the area has poor drainage. Stress from environment, site, cultural and chemical factors can contribute to conifer dieback, as discussed in the following Factsheet: http://www.ppdl.purdue.edu/PPDL/pubs/briefs/Conifer-Dieback.pdf*"

5. According to application information collected from Precision Turf Care, Chad Miller applied Imprelis Herbicide (EPA Reg. No. 352-793) to the lawn on May 19, 2011, at the rate of 4.5 oz /acre using ride-on application equipment.

Andrew R. Roth
Pesticide Investigator

Date: October 25, 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: November 15, 2011