CASE SUMMARY

Case #2011/1453

Complainant: Terri Ruffner
18465 Joliet Road
Sheridan, IN 46069

Applicator: Royal Fleming — Licensed Applicator
The Greenskeeper, Inc. — Licensed Business
1051 Summit Dr.
Carmel, IN 46032
317 - 846 - 7131

1. On August 15, 2011 I, Agent Trish Waller 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 and shrubs possibly resulting from exposure to the herbicide Imprelis. A Notice of Inspection was issued to Terri Ruffner. I observed the following during my on-site investigation:
   a) Tops of trees were curled (See Figure #3).
   b) Browning of needles/leaves (See Figure #3, #4, #5, #6, #7, and #9).

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

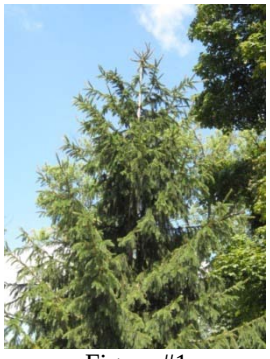
Figure #1


Figure #2


Figure #3


Figure #4


Figure #5


Figure #6


Figure#7


Figure #8


Figure #9

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
    c) Oak

4. According to a report from the PPDL, *"Several fungal diseases were confirmed on the various samples submitted: Rhizosphaera needlecast was confirmed on dark brown needles on one of the spruce branches; anthracnose was confirmed on the maple leaves; Tubakia leafspot was confirmed on the oak leaves and Botryosphaeria canker was confirmed on the oak twigs. Shothole leafminer damage was also noted on the oak leaves. Our PPDL diagnosis of the possibility of potential damage from herbicide injury is based on visual assessment of samples and images submitted and whether the symptoms observed on non-target plants are typical of injury that could be caused by exposure or uptake of the herbicides purportedly applied to the area. The spruce samples and pictures submitted showed some symptoms that are suggestive of injury that can be 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; dieback of shoot tips; 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."*

5. According to the application information collected from the applicator Imprelis Herbicide (EPA Reg. No. 352-793) was applied on May 24, 2011 at the rate of 4.5 ounces/acre using z-sprayer 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.

Trish Waller
Pesticide Investigator

Date: September 26, 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 25, 2011