

CASE SUMMARY

Case #2011/1568

Site: Geist Shoppes
10402 Olio Road
Fishers, IN 46037

Applicator: Isais Aguilera
Business: Hittle Landscaping
17778 Sun Park Drive
Westfield, IN 46074
317-896-5697

Certified Applicator
Licensed Business

1. On August 22, 2011, I, Agent Andy Roth of the Office of Indiana State Chemist (OISC), performed an investigation at the above listed address, a property managed by Don Kirch of Barrett & Stokely, in response to a claim of injury/damage to non-target trees possibly resulting from exposure to Imprelis Herbicide. At the site, I observed Norway spruces with distorted tips and dieback, mainly at the tops. Honey locusts exhibited discolored leaves and distorted new growth and some were defoliated at the top of the canopy.
2. I photographed the site documenting the symptoms I observed:



Figure 1



Figure 2



Figure 3



Figure 4

3. I collected plant samples from Norway spruce and honey locust 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 states, *“There was no evidence of significant mite or insect injury or disease on the spruce and honeylocust samples submitted. 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 samples and pictures of spruce submitted show symptoms (needle and branch distortion) 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. The samples and pictures submitted of the honeylocust show yellowing and foliar discoloration, defoliation, petiole distortion and dieback of the honeylocust along with swellings or galls on stem and trunk tissue. The swellings do not appear to be related to insect injury and symptoms do not match those seen in known diseases. We have observed this type of swelling on other samples of honeylocust where Imprelis was applied. Swellings of trunk and stem tissue may be a reaction of the tree to death of growing points. The honeylocust defoliation and death of growing points does not appear to be caused by insects, mites or disease. The prospects for recovery from herbicide damage depend on the dose and the extent of the damage. Don't give up on herbicide damaged trees and shrubs too quickly. The following are suggestions provided by horticulture specialists for managing stressed trees:*
- *Make sure the tree has sufficient water this summer: an inch of water each week from rain and/or irrigation. This will reduce stress on the tree.*
 - *Don't prune dead wood until you know the extent of the dieback (possibly up to 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 for a minimum of one growing season. Stimulating new top growth too soon will add stress to the tree.”*
5. According to application information collected from Hittle Landscaping, Isais Aguilera applied Imprelis Herbicide (EPA Reg. No. 352-793) to the property on May 24, 2011, at a rate of 4.5oz /acre using ride-on application equipment.



Andrew R. Roth
Pesticide Investigator

Date: November 1, 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 18, 2011