CASE SUMMARY

Case #2011/1250

Complainant:	Karen Brewer Walgreens 1801 South Street Lafayette, IN 47905 765-497-2300	Store Manager
Applicator:	Christopher Knight Tippecanoe Lawn Care 4400 State Road 25 North Lafayette, IN 47905 765-589-8251	Certified Applicator Licensed Business

1. On July 15, 2011, I, Agent Beth Carter 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 possibly resulting from exposure to the herbicide Imprelis. A Notice of Inspection was left in the store for Karen Brewer, the store manager. I observed the following on multiple honey locust trees during my on-site investigation:
   a) Yellowing and browning of the leaves (see figure 1 through 6).
   b) Defoliation of the trees along with piles of leaves underneath (see figure 5 & 6).
   c) Curling of the leaves (see figure 4 &5).

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


Figure 1


Figure 2

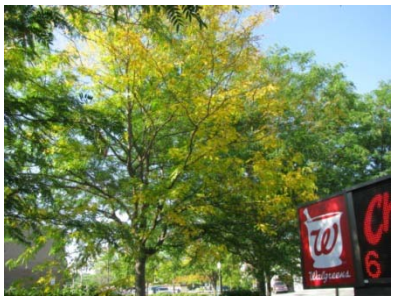
Figure 3


Figure 4

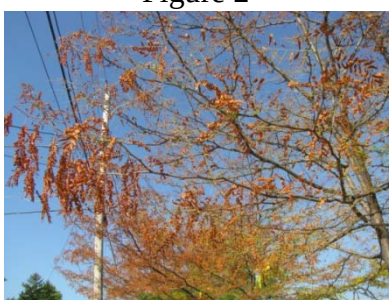
Figure 5

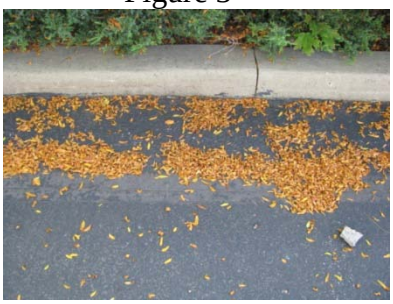
Figure 6

3. I collected a vegetation sample from a visibly impacted honey locust tree as described in paragraph #1 for examination by the Purdue Plant Pest Diagnostic Laboratory (PPDL).

4. I collected the following environmental samples for chemical analysis by the OISC Residue Laboratory:
    a) Vegetation sample (honey locust)
    b) Soil sample composite
    c) Soil sample drip line

5. The report from the PPDL stated, "*No infectious disease was found to be associated with the yellow leaves on the locust branch sample submitted. Premature yellowing of tree foliage can be caused by a number of different stresses including site, environmental, nutritional and chemical factors, however it is highly unlikely that so many honey locust trees would suddenly be affected by the same cultural problem when they had been healthy in previous years.*
The sample (and pictures) submitted show symptoms that may be associated with injury 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; 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."

6. According to the report from the OISC Residue Lab the following levels of aminocyclopyrachlor (active ingredient in Imprelis Herbicide) were found in the samples referenced in item #4:

a) Vegetation sample (honey locust)	32.0 PPB
b) Soil sample composite	35.0 PPB
c) Soil sample drip line	0.12 PPB

PPB=Parts Per Billion

7. According to the application information collected from the applicator, Imprelis Herbicide (EPA Reg. No. 352-793) was applied on April 17, 2011 and June 2, 2011, at a rate of 4.5 fluid ounces per acre with hose and reel sprayer.

Elizabeth C. Carter
Pesticide Investigator

Date: September 20, 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 14, 2011