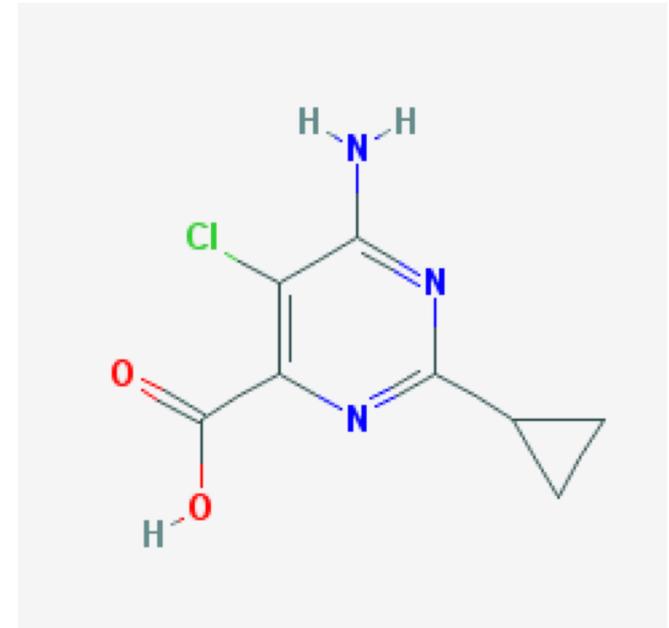


## History – Aminocyclopyrachlor (ACP)

- 1<sup>st</sup> EPA-registered in Summer 2010
- 3 'Flavors': Acid, Potassium Salt, Methyl Ester
- Labeled uses: Non-crop areas, Turf/Lawns





## Imprelis

- June 2011 – EPA receives reports
- August 2011 – Imprelis under stop sale



*Suspected Imprelis injury on Norway spruce on a golf course near Ann Arbor. Photo credit: Don Wild*  
[https://www.canr.msu.edu/news/documenting\\_suspected\\_imprelis\\_injury](https://www.canr.msu.edu/news/documenting_suspected_imprelis_injury)

<https://www.oisc.purdue.edu/pesticide/pdf/wt-d-13-00066-1.pdf>

[https://www.oisc.purdue.edu/pesticide/pdf/imprelis\\_update\\_2012\\_high\\_res.pdf](https://www.oisc.purdue.edu/pesticide/pdf/imprelis_update_2012_high_res.pdf)



**PURDUE**  
EXTENSION

## Purdue Plant & Pest Diagnostic Laboratory

### 2013 Imprelis® Update: Tree Maintenance, Replacement, and Disposal



[www.ppd.l.purdue.edu](http://www.ppd.l.purdue.edu)



This publication addresses some of the many questions being asked about Imprelis® in 2013.

#### Background

A DuPont herbicide with the active ingredient aminocyclopyrachlor was sold with the trade name Imprelis® and used in

turf.

Turf professionals who reported landscape damage from a 2011 application of Imprelis® were encouraged by DuPont to file a claim. Claims were filed and processed with some settlements now reached. New injury to trees and shrubs continued to be reported in 2012 from

[https://www.oisc.purdue.edu/pesticide/pdf/imprelis\\_update\\_2013.pdf](https://www.oisc.purdue.edu/pesticide/pdf/imprelis_update_2013.pdf)

### Did Trees Recover from Imprelis® Injury?

Imprelis® is continuing to affect the growth and health of Norway spruce, blue spruce and white pine as well as other species. From our observations, Imprelis® is still injuring trees and symptoms are worsening in most cases and trees are not recovering. Initially, blue spruce appeared largely unaffected by Imprelis® but now injury is visible at some locations. At one



*Blue spruce closeup in 2013 showing injury symptoms.*

location, for example, blue spruce trees had no Imprelis® symptoms in June of 2011, some bud death in spring of 2012, and now these blue spruce appear to be dying



*Clubbing of new growth on white pine in 2013.*

in 2013. Injury symptoms are worsening from the herbicide based on the continued development of symptoms including gall-like terminal growth on some plants, but we also acknowledge that

injury was exacerbated by the drought in 2012.



Weed Technology 2013 27:803–809

## Potential Damage to Sensitive Landscape Plants from Wood Chips of Aminocyclopyrachlor Damaged Trees

Aaron J. Patton, Gail E. Ruhl, Tom C. Creswell, Ping Wan, David E. Scott, Joe D. Becovitz, and Daniel V. Weisenberger\*

Applications of aminocyclopyrachlor in 2011 to turf resulted in brown and twisted shoots, leaves, and needles; shoot dieback; and in some cases, death of trees and ornamental plants adjacent to treated turf areas. Our research objective was to determine if a sensitive plant could be injured from wood chips (mulch) obtained from aminocyclopyrachlor-damaged trees, and to quantify movement of aminocyclopyrachlor from contaminated wood chips into soil and its subsequent uptake by roots into landscape plant tissues. Tomatoes were grown under greenhouse conditions and mulched with chipped tree branches collected from honey locust and Norway spruce damaged 12 mo previously by aminocyclopyrachlor. Analysis of tomato tissue for aminocyclopyrachlor residues 32 d after mulching found aminocyclopyrachlor in all mulched tomato plants, which was consistent with observations of epinasty on tomato leaflets. Aminocyclopyrachlor residues ranged from 0.5 to 8.0 ppb in tomato plants while chipped tree branches contained 1.7 to 14.7 ppb. Aminocyclopyrachlor residues in the potting soil below the mulch ranged from below the quantifiable limit to 0.63 ppb, indicating that aminocyclopyrachlor can leach from wood chips into soil, causing plant injury. These results indicate that trees damaged by aminocyclopyrachlor should not be chipped and used for mulch or as an ingredient in compost.

**Nomenclature:** Aminocyclopyrachlor; honey locust, *Gleditsia triacanthos* L.; Norway spruce, *Picea abies* (L.) Karst.; tomato, *Solanum lycopersicum* L.

**Key words:** Growth regulator, herbicide, lawn care, mulch, off-target, ornamentals, shrubs, turf.

“...growth regulator-type herbicide symptoms were visible in tomato leaflets containing as little as **0.5 ppb** of aminocyclopyrachlor.”

<https://www.oisc.purdue.edu/pesticide/pdf/wt-d-13-00066-1.pdf>



## CURRENT OREGON REGISTRATIONS

DuPont	
352-786	DuPont Method 240SL Herbicide
352-787	DuPont Method 50SG Herbicide
352-846	DuPont Perspective Herbicide
352-847	DuPont Viewpoint Herbicide
352-848	DuPont Streamline Herbicide

Bayer Environmental Science	
432-1565	Method 240SL Herbicide
432-1566	Method 50SG Herbicide
432-1569	Perspective Herbicide
432-1580	Viewpoint Herbicide
432-1570	Streamline Herbicide

**\*More detail on the handout**





## PERSPECTIVE – USE SITES

### **Uncultivated non-agricultural areas, such as:**

- Airport/highway/railroad/utility rights-of-way

### **Uncultivated Ag. Areas, such as:**

- Farmyards
- Fuel storage areas
- Fence rows
- Non-irrigation ditchbanks

### **Industrial sites, such as:**

- Lumberyards
- Pipeline
- Tank farms

### **Natural Areas, such as:**

- Wildlife management areas
- Wildlife openings
- Wildlife habitats



## PERSPECTIVE – RESTRICTIONS

### Prior to March 7, 2012 Label Revision

“Apply this product or sprays containing this product in a manner that minimizes the potential to come into contact with any non-target crop or desirable broad leaf plants.”

“Do not make applications when circumstances favor movement from treatment site.”

“Caution is advised when using this product in areas where loss of broadleaf plants, including legumes and wild flowers, cannot be tolerated.”

### March 7, 2012 Label Revision & After

“Do not apply this product in areas where the roots of desirable trees and/or shrubs may extend unless injury or loss can be tolerated. Root zone areas of desirable trees or vegetation are affected by local conditions and can extend well beyond the tree canopy.”

“Do not apply this product if site-specific characteristics and conditions exist that could contribute to movement and unintended root zone exposure to desirable trees or vegetation unless injury or loss can be tolerated.”