Postemergence Weed Control in Landscapes:

What do I need to know?

- Weed Species
- Ornamental species (and occasionally the cultivar)
- Available options
Postemergence Weed Control
“Tools”

- Labor
- Selective Herbicides
- Non-Selective Herbicides
  - Directed applications
  - Wiper applications
Well, it looked like a weed to me.
Hand Weeding and Hoeing

- Seedling weeds controlled
- Not effective for perennial weeds
Selective Postemergence Weed Control

- Grass control
- Sedge control
- Limited broadleaf weed control options
POST grass control

Selectively control of most annual and perennial grasses in most ornamental beds
Postemergence Control of Weedy Grasses

**Selective** (physiological selectivity)
- Acclaim, Envoy, Fusilade, Vantage

**Non-Selective** (positional selectivity)
- Contact: Reward, Scythe
- Systemic: Finale, Roundup-Pro
Postemergence Graminicidies – Classifications –

- Aryloxyphenoxy propionate (FOPS)
  - fenoxaprop (Acclaim)
  - fluazifop (Fusilade & Ornamec)

- Cyclohexanedione (DIMS)
  - Sethoxydim (Vantage and Poast)
  - Clethodim (Envoy)
Acclaim Extra

- **Class:** FOP
- **AI:** fenoxaprop-p
- Controls summer annual grasses
- Does not control sedges or perennial grasses or annual bluegrass
- Used mainly in turf
  - clethodim (Envoy)
  - sethoxydim (Vantage)
Fusilade

Class: FOP
AI: Fluazifop-p
controls annual and perennial grasses
Does not control sedges or annual bluegrass
Weak on some fescues, Sweet Vernal Grass,
Vantage

Class: DIM
AI: sethoxydim
controls annual and perennial grasses
Does not control sedges or annual bluegrass
Weaker on perennial grasses
Envoy

Class: DIM

AI: clethodim

controls annual and perennial grasses – including annual bluegrass and fescue

Does not control sedges
## POST Graminicidies Compared

<table>
<thead>
<tr>
<th>Trade Name</th>
<th>Active Ingredient</th>
<th>Rate # ai/A</th>
<th>Rate oz/1000</th>
<th>Adjuvant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acclaim Extra</td>
<td>fenoxaprop</td>
<td>0.12-0.35</td>
<td>0.34 - 1</td>
<td>None</td>
</tr>
<tr>
<td>Envoy</td>
<td>clethodim</td>
<td>0.06-0.25</td>
<td>0.2 - 0.8</td>
<td>0.25% Nonionic</td>
</tr>
<tr>
<td>Fusilade II</td>
<td>fluazifop-p</td>
<td>0.13-0.25</td>
<td>0.8 - 1</td>
<td>0.25% Nonionic</td>
</tr>
<tr>
<td>Vantage</td>
<td>sethoxydim</td>
<td>0.25 - 0.5</td>
<td>0.8 - 1.4</td>
<td>None</td>
</tr>
</tbody>
</table>
# POST Graminicides Compared

<table>
<thead>
<tr>
<th>Grass</th>
<th>Acclaim</th>
<th>Envoy</th>
<th>Fusilade</th>
<th>Vantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>S.A. grasses</td>
<td>G</td>
<td>G-E</td>
<td>G-E</td>
<td>G-E</td>
</tr>
<tr>
<td>annual bluegrass</td>
<td>P</td>
<td>G</td>
<td>P-F</td>
<td>P-F</td>
</tr>
<tr>
<td>downy brome</td>
<td>?</td>
<td>F-G</td>
<td>F-G</td>
<td>?</td>
</tr>
<tr>
<td>bermudagrass</td>
<td>P</td>
<td>G</td>
<td>G</td>
<td>F-G</td>
</tr>
<tr>
<td>johnsongrass</td>
<td>G-E</td>
<td>G-E</td>
<td>G-E</td>
<td>G</td>
</tr>
<tr>
<td>quackgrass</td>
<td>P</td>
<td>G</td>
<td>G</td>
<td>F-G</td>
</tr>
</tbody>
</table>
Crabgrass Control

- Any of the POST graminicidies will work.
- Vantage > Fusilade = Envoy > Acclaim

Early applications work better
Perennial grass control: 
Fusilade = Envoy > Vantage

bermudagrass

johnsongrass
Envoy is the only POST graminicide that controls annual bluegrass.
Recommended Application Times for Optimum Control with Graminicides

<table>
<thead>
<tr>
<th>Weed</th>
<th>Recommended</th>
<th>Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual bluegrass</td>
<td>mid - fall</td>
<td>mid-spring</td>
</tr>
<tr>
<td>Downy brome</td>
<td>mid - fall</td>
<td>mid-spring</td>
</tr>
<tr>
<td>Crabgrass</td>
<td>1-tiller</td>
<td>up to 5 tillers</td>
</tr>
<tr>
<td>Johnsongrass</td>
<td>Spring</td>
<td>Late summer</td>
</tr>
<tr>
<td></td>
<td>~6 in. new growth)</td>
<td></td>
</tr>
<tr>
<td>Bermudagrass</td>
<td>Late spring</td>
<td>Summer, actively growing</td>
</tr>
<tr>
<td></td>
<td>~ 4-6 in. new</td>
<td></td>
</tr>
<tr>
<td>Quackgrass</td>
<td>Spring</td>
<td>Late summer</td>
</tr>
<tr>
<td></td>
<td>~6 in. new growth</td>
<td></td>
</tr>
</tbody>
</table>
## POST Graminicide Safety on Ornamentals

<table>
<thead>
<tr>
<th>Ornamental</th>
<th>Acclaim</th>
<th>Fusilade</th>
<th>Envoy</th>
<th>Vantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junipers</td>
<td>Dir*</td>
<td>Dir*</td>
<td>OT</td>
<td>OT</td>
</tr>
<tr>
<td>Bar Harbor Jun.</td>
<td>No</td>
<td>No</td>
<td>OT</td>
<td>OT</td>
</tr>
<tr>
<td>Azalea</td>
<td>OT</td>
<td>Dir*</td>
<td>OT</td>
<td>OT</td>
</tr>
<tr>
<td>Vinca minor</td>
<td>OT</td>
<td>OT</td>
<td>ot</td>
<td>OT</td>
</tr>
<tr>
<td>Begonia</td>
<td>OT</td>
<td>OT*</td>
<td>ot</td>
<td>OT</td>
</tr>
<tr>
<td>Pansy</td>
<td>?</td>
<td>?</td>
<td>OT</td>
<td>OT*</td>
</tr>
<tr>
<td>Blue fescue</td>
<td>OT</td>
<td>No</td>
<td>No</td>
<td>OT</td>
</tr>
</tbody>
</table>

OT = Over the Top; Dir = Directed appl.; * = on certain varieties
POST Graminicides Can Injure Ornamentals

Fusilade injures Bar Harbor juniper

Vantage on Birch – young spring buds
Getting the Most Out of Postemergence Graminicides

- Temperature & Moisture conducive to actively growing weeds
- Optimum timing (growth stage & season)
- Select the best product for the weed species
- Use recommended dose & adjuvant
- No rainfall within 1 hr of application
- Uniform application - calibrated treatments