Preemergence Herbicide Demonstration Plots

Shawn Steed and Cami McAvoy
UF/IFAS Hillsborough County Extension
Assessed Needs

- Container woody growers were having more problems
- Sales were down
- Plants were residing longer
- Labor was reduced
- Same herbicide use
Demonstration Plots

Goal

- To see effectiveness of preemergent herbicides in worst case scenario
- Longevity of control
- Herbicide selectivity!!!
Demonstration Plots

- Constructed with treated 2x4 and groundcover.
- Plot size is $\frac{1}{10,000}$th of an acre
- Filled with used weedy potting soil (pine bark/peat/sand)
- Collected weed seeds dispersed over the top:
  - bittercress
  - beggar’s tick (Spanish needle)
  - artillery fern
  - spurge
  - doveweed
  - kylinga
  - grass weeds
Demonstration Plots

- Weed seeds were evenly distributed and raked into topsoil
- Wetted down
- Applied herbicides and/or mulch
- Plots irrigated after application
- Watered almost daily to wet the soil and weeds
- Repeated twice (Fall/Winter)
Demonstration Plots
## Preemergent Trials

- Control
- Snapshot
- TI 2.5G
- Rout
- Double O
- Showcase
- OH II
- Biathlon
- Corral
- FreeHand
- Jewel
- Tower
- BroadStar
- SureGuard
- Oxad. 2G
- Oxad.50WSB
- Wood Shav.
- Shav. + Bia.
- Simazine
- Marengo
### Observations on Efficacy

#### Percent Control 30 DAT

<table>
<thead>
<tr>
<th>Product</th>
<th>Control (%)</th>
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<tr>
<td>Marengo*</td>
<td>100</td>
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<tr>
<td>Tower</td>
<td>94</td>
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<tr>
<td>FreeHand</td>
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<td>Snapshot</td>
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<td>TI 2.5G</td>
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Herbicide Efficacy on Bittercress 60 DAT*

Number of bittercress

- Snapshot
- TT 2.5G
- Rout
- Double O
- Showcase
- OHII
- Biathlon
- Corral
- Control
- FreeHand 1.75G
- Jewel
- Tower
- BroadStar
- SureGuard
- Oxadiazon 2G
- Oxadiazon 50WP
- Wood Strawings
- Wood Straw + Brath
- Simazine
- Marcygo
Spring/Summer Demonstration Plots

- Subset of original herbicides (10 + Control)
- Replicated 4 times/site
- Repeated in Hillsborough and Pasco County Extension Offices
- Soil differed
- Weeds differed
- High labeled rates were used
Preemergent Trials

- Snapshot
- Rout
- Showcase
- OH II
- Biathlon
- FreeHand
- Jewel
- Tower
- SureGuard
- Marengo
- Control
Hillsborough County Results
# Observations on Efficacy
## Percent Control 30 DAT

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Pasco County Results
Total Number of Weeds 30 DAT

- Control
- OH II
- Biathlon
- Jewel
- Rout
- FreeHand
- Showcase
- Snapshot
- SureGuard
- Tower
- Morengo

Legend:
- Total all weeds
Total # of Grass Weeds 30 DAT

- Control
- OH II
- Biathalon
- Jewel
- Rout
- FreeHand
- Showcase
- Snapshot
- SureGuard
- Tower
- Morengo

Total # of Grass Weeds
Summary

- Time of the year
- Weed complex
- Match weed/herbicides
- Figure best cost complex basis
- Sprayables
- Calibrate
- Rotate
BMP’s for Weed Control

OH2®
Ornamental Herbicide
Provides preemergence control of weeds in container and field grown ornamentals.

ACTIVE INGREDIENTS:
- Oxyfluorfen\textsuperscript{t} 2.00%
- Pendimethalin\textsuperscript{tt} 1.00%

OTHER INGREDIENTS: 97.00%
Total 100.0%

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION. Causes eye injury. Do not get in eyes, on skin, or on clothing. Harmful if swallowed. Avoid inhalation.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

\textsuperscript{t}CAS # 42874-03-3
\textsuperscript{tt}CAS # 40487-42-1
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Questions?