Herbicides for ROW Turf and Guardrail Vegetation Management (2-03)

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Introduction

- Benefits of weed control during centipedegrass establishment

- Weed control options during centipedegrass establishment

- Johnsongrass control options along roadsides
Weed Control During Centipedegrass Establishment

Centipedegrass and large crabgrass were seeded at 10 lb/a

Five seed mixes included:

- 100:0, 75:25, 50:50, 25:75, and 0:100 centipedegrass:large crabgrass mixtures

Two weed control options included:

- 1 lb ai/a atrazine applied at planting or no herbicide
Main effect of atrazine on DIGSA emergence

4 WAP; atrazine applied at planting 1 lb ai/a; data pooled over seed mixes; P=0.05
Effect of seed mix and atrazine on centipedegrass tiller production

No atrazine

Atrazine

Seed mix composition (EREOP:DIGSA)

Based on 10 randomly selected plants; 8 WAP; atrazine applied at planting (1 lb ai/a); P-value for rate linear contrasts
Main effect of atrazine on centipedegrass stolon production

8 WAP; data pooled over seed mixes; atrazine applied at planting (1 lb ai/a)
Effect of seed mix and atrazine on centipedegrass ground cover

8 WAP; atrazine applied at planting (1 lb ai/a) P-value for rate linear contrasts
Weed Control During Centipedegrass Establishment: Summary

Large crabgrass emergence was reduced (48%) when atrazine was applied at planting compared to when it was not applied (89%); however, centipedegrass emergence was not affected by atrazine application.
Weed Control During Centipedegrass Establishment: Summary

- Centipedegrass tiller production and percent ground cover decreased linearly with increasing amounts of large crabgrass.

- Centipedegrass tiller production and ground cover were reduced less when atrazine was applied at seeding.
Weed Control During Centipedegrass Establishment: Summary

Centipedegrass ground cover was identical (89%) in seed mix containing 100% centipedegrass regardless of atrazine application indicating no negative effect of atrazine applied at planting.
Atrazine can hasten centipedegrass grow-in by reducing interspecific competition
Weed Control Options During Centipedegrass Establishment

Evaluation of centipedegrass tolerance to treatments applied at seeding or six weeks after seeding, at which time the centipedegrass was 1 leaf to 1 tiller with the majority being in the 3-4 leaf stage.
# Weed Control Options During Centipedegrass Establishment

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Formulation</th>
<th>Rate/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telar + Embark</td>
<td>75DF + 2L</td>
<td>0.125 oz + 0.5 pt</td>
</tr>
<tr>
<td>Plateau*</td>
<td>2L</td>
<td>1, 2, 4, or 6 oz</td>
</tr>
<tr>
<td>Oust**</td>
<td>75DG</td>
<td>0.5 or 1 oz</td>
</tr>
<tr>
<td>Escort**</td>
<td>60DF</td>
<td>0.5 or 1 oz</td>
</tr>
<tr>
<td>atrazine**</td>
<td>4L</td>
<td>1 or 2 lb ai</td>
</tr>
<tr>
<td>simazine**</td>
<td>4L</td>
<td>1 or 2 lb ai</td>
</tr>
</tbody>
</table>

* included MSO 1.5 pt/a, ** included NIS 0.25% vol/vol
Weed Control Options During Centipedegrass Establishment

- The following did not reduce centipede grass ground cover or provide unacceptable phytotoxicity:

<table>
<thead>
<tr>
<th>Applied at seeding</th>
<th>Applied 6 wk after seeding</th>
</tr>
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<tbody>
<tr>
<td>Plateau (1 or 2 oz)</td>
<td>Atrazine (1 or 2 lb ai)</td>
</tr>
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<td>Atrazine (1 or 2 lb ai)</td>
<td>Oust (0.5 oz)</td>
</tr>
<tr>
<td>Simazine (1 or 2 lb ai)</td>
<td>Plateau (1, 2, 4, or 6 oz)</td>
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The following reduced centipedegrass ground cover or provided unacceptable phytotoxicity:

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<td>Escort (0.5 or 1 oz)</td>
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</tr>
<tr>
<td>Oust (1 oz)</td>
<td>Oust (1 oz)</td>
</tr>
<tr>
<td></td>
<td>Telar + Embark (0.125 oz + 0.5 pt)</td>
</tr>
</tbody>
</table>
Oust 0.5 oz

Oust 1 oz
Plateau 4 oz

Plateau 2 oz
nontreated
4 WAT

Telar + Embark
0.125 oz + 0.5 pt
Plateau 4 oz

Plateau 2 oz
Johnsongrass (*Sorghum halepense*)
Control Along Roadsides

* Outrider (sulfosulfuron)

- New sulfonylurea herbicide registered for selective control of annual and perennial grass and broadleaf weeds in noncrop areas

- Use rate: 0.5 – 1.0 oz/a + NIS
Johnsongrass Control Along Roadsides

Outrider applied July 13, 2001 and included NIS on US1 in Lee County; rates are oz product per acre; LSD based on P=0.05
Tall Fescue Injury with Outrider Application

Outrider applied July 13, 2001 and included NIS on US1 in Lee County; rates are oz product per acre; LSD based on P=0.05
Johnsongrass Control Along Roadsides

- Outrider applied at 0.5, 0.75, or 1 oz prod/acre provided good control of johnsongrass

- Outrider applied at 1 oz/a caused significant tall fescue injury through 8 WAT
Johnsongrass Control Along Roadsides

- Certain Outrider tank-mixes including amine formulations (2,4-D, Garlon, etc.) can lead to reduced activity

- Avoid tank-mixes if possible