2010 Crop Safety of Mesotrione 4SC on Conifers with Over-the-top Applications

Final

Ornamental Protocol Number: 10-018

Objective: Determine phytotoxicity of Mesotrione SC on field in-ground conifers, conifer seedbeds, and container grown ornamental grasses.

Experimental Design:

Plot Size: Must be adequate to reflect actual use conditions.

Replicates: Minimum of 12 individual plant replications in RCB (other experimental designs are acceptable as long as there are at least 12 pots treated)

Application Instructions: Depending upon research site and plant materials, various experiments can be established. Two applications are to be made approximately 4 weeks apart, with the first application within 7 days after potting, preferable between 24 and 48 hours. However, plant materials must have broken dormancy prior to first application. Use between 30 and 40 gal per acre. Applications should be made over the top of the plants using application equipment consistent with conventional commercial equipment. For all materials, target dry foliage. If dew is present at the time of application, note it. Irrigate with ½ inch water between 1 and 4 hours after application. Note: Liquid materials need at least 1 hour drying time prior to irrigation.

Plant Materials: For 2010, a plant list is available through the Regional Field Coordinators. Plants should be grown field in-ground.

Treatments:

<table>
<thead>
<tr>
<th>Product</th>
<th>Priority</th>
<th>Rate  Product (ai) per acre</th>
<th>Special Instructions</th>
<th>Contact Information to obtain materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mesotrione 4SC</td>
<td>B/C</td>
<td>6 oz (0.187 lb ai)</td>
<td></td>
<td>Syngenta, Nancy Rechsigl, 941-708-9338, <a href="mailto:nancy.rechsigl@syngenta.com">nancy.rechsigl@syngenta.com</a></td>
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<td></td>
<td></td>
<td>8 oz (0.25 lb ai)</td>
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<tr>
<td></td>
<td></td>
<td>12 oz (0.37 lb ai)</td>
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<td></td>
</tr>
<tr>
<td>Untreated</td>
<td></td>
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</tbody>
</table>

Evaluations: Record plant height & width at initial and final evaluations only. At 1, 2, and 4 weeks after each application, record phytotoxicity on a scale of 0 to 10 (0 = No phytotoxicity; 10 = Complete kill). If appropriate, also include ratings for chlorosis, defoliation, stunting or other growth effects on a scale of 0 to 10 (0 = No effect; 10 = Complete plant affected). If any phytotoxicity is observed in treated plants, take pictures comparing treated and untreated plant material.

Recordkeeping: Keep detailed records of weather conditions including temperature and precipitation, soil-type or soil-less media, application equipment, irrigation, liner size, plant height & width, and plant growth stage at application and data collection dates.

Reports:

Reports submitted electronically on the standard IR-4 Ornamental Horticulture Research Report Form are preferred.

A report submitted electronically is preferred but not required. If the report is provided electronically, the basic report can be sent in MS Word or WordPerfect, the recordkeeping information as pdf or other electronic documents, and the raw data in MS Excel or other suitable program such as ARM.

Please direct questions to: Cristi Palmer, IR-4 HQ, Rutgers University, 681 US Hwy 1 S, North Brunswick, NJ 08902-3390, Phone 732-932-9575 x4629, palmer@aesop.rutgers.edu OR Ely Vea, 308 Aston Forest Lane, Crownsville, MD 21032, Phone & FAX#: 410-923-4880, E-mail: evvea@comcast.net.

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