OBJECTIVE

In 2013 12 biotypes of *Lolium rigidum* surviving herbicide field treatments were received from advisors. The main objective was to determine if populations were resistant to herbicides. And if they are, to determine the herbicides to whom they are resistant.

MATERIAL & METHODS:

**Dose response experiment 1:**

<table>
<thead>
<tr>
<th>Biotype</th>
<th>Diclofop</th>
<th>Cletoim</th>
<th>Mesosulfuron + Iodosulfuron</th>
<th>CTU</th>
<th>Glyphosate</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-13</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>7-13</td>
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<td>R</td>
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<td>**</td>
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</tr>
<tr>
<td>8-13</td>
<td>R</td>
<td>R</td>
<td>S</td>
<td>*</td>
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<tr>
<td>9-13</td>
<td>R</td>
<td>R</td>
<td>S</td>
<td>*</td>
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<tr>
<td>10-13</td>
<td>R</td>
<td>R</td>
<td>S</td>
<td>*</td>
<td></td>
</tr>
<tr>
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<td>R</td>
<td>*</td>
<td>**</td>
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</tr>
<tr>
<td>12-13</td>
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<td>S</td>
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<tr>
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<td>S</td>
<td>R</td>
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**Dose response experiment 2:**

<table>
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</thead>
<tbody>
<tr>
<td>10-13</td>
<td>114,7 (12,1)</td>
<td>399,6</td>
<td>4,66</td>
<td>6,42</td>
</tr>
<tr>
<td>11-13</td>
<td>33,4 (6,0)</td>
<td>106,6</td>
<td>1,36</td>
<td>1,71</td>
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<tr>
<td>Standard</td>
<td>24,6 (4,2)</td>
<td>62,2</td>
<td></td>
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</tbody>
</table>

CONCLUSIONS:

1. Complaints are very useful to detect early stages of herbicide resistance
2. There are *Lolium* populations less susceptible to prosulfocarb than the standard
3. Biotypes with low susceptibility to prosulfocarb, are also less susceptible to propyzamide and metazachlor than the standard
4. In this test, biotypes low susceptibles to glyphosate were found