1987

Peas - MCPA amine vs Na salt

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TRIAL NUMBER: 87A39/4515 EX
LOCATION: AVONDALE RESEARCH STATION
OFFICERS: GILBEY
OBJECTIVE: To study the effect of MCPA amine and Na salt on peas and weeds
CROP VARIETY: Dunndale
SEEDING: 27.5.87 at 110 kg/ha with Plain Super at 80 kg/ha
SITE PREPARATION: Diuron and trifluralin applied before seeding
SITE DESCRIPTION: Red sandy loam
SPRAYING DETAILS: 2.7.87 Peas 6 node, doublegee cotyledon, capeweed 2-4 leaf, rye grass Z12.5-Z15
ASSESSMENTS: Visual rating 4.8.87, 7.10.87
Plant counts Not counted
Harvest 24.11.87
RATING SCALE (PEAS): 0 = no effect
1 = slight effect
2 = moderate effect
3 = severe effect
WEEDS PRESENT IN CROP: Small rye grass, capeweed and doublegee present when sprayed. No weeds present when inspected one month later

IBS = Immediately before seeding
PE = Post-emergence

Figures in tables followed by the same letter do not differ significantly (P = 0.05) using Duncans Multiple Range Test.
Table 1. Effect of herbicide on peas

<table>
<thead>
<tr>
<th>Treatment/ha</th>
<th>Visual rating 4.8.87</th>
<th>Visual rating 7.10.87</th>
<th>Grain yield kg/ha</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>000</td>
<td>000</td>
<td>1667 a</td>
</tr>
<tr>
<td>1. Nil</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. MCPA Na salt 0.7 L PE</td>
<td>000</td>
<td>000</td>
<td>1542 abc</td>
</tr>
<tr>
<td>3. MCPA Na Salt 1.4 L PE</td>
<td>000</td>
<td>001</td>
<td>1542 abc</td>
</tr>
<tr>
<td>4. MCPA Na Salt 2.8 L PE</td>
<td>111</td>
<td>010</td>
<td>1286 abcd</td>
</tr>
<tr>
<td>5. MCPA Na Salt 5.6 L PE</td>
<td>212</td>
<td>100</td>
<td>1071 cd</td>
</tr>
<tr>
<td>6. MCPA Amine 0.35 L PE</td>
<td>000</td>
<td>001</td>
<td>1363 abc</td>
</tr>
<tr>
<td>7. MCPA Amine 0.7 L PE</td>
<td>100</td>
<td>110</td>
<td>1179 abcd</td>
</tr>
<tr>
<td>8. MCPA Amine 1.4 L PE</td>
<td>111</td>
<td>210</td>
<td>1345 abcd</td>
</tr>
<tr>
<td>9. MCPA Amine 2.8 L PE</td>
<td>222</td>
<td>221</td>
<td>881 d</td>
</tr>
<tr>
<td>10. Bladex 1 L PE</td>
<td>000</td>
<td>011</td>
<td>1577 ab</td>
</tr>
</tbody>
</table>

COMMENTS: This was a weed free site and no peas sprayed with MCPA yielded higher than unsprayed peas.

No difference was detected between MCPA amine or MCPA sodium salt. Both formulations were phytotoxic at the highest equivalent level of application.

While the mean yield shown for 700 mls MCPA amine/ha is lower than that for unsprayed peas this can be explained by a particularly low yield in one replication of the sprayed plots. The reason for this one low yielding plot is unknown as nothing unusual was observed during the season.