1987

Control of peas and lupins in oats

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Trial Title: Control of peas and lupins in oats.

Trial Number: 87A30

Location: Avondale Paddock 3A

Soil Type: Heavy Red Brown Loam

Blanket Treatments: Area worked once then lupins and oats topdressed by cone seeder onto surface crop, then sown with harrows behind seeder. Sown 19/5.

Sown to Dundale peas, Yandee lupins.

Ground Preparations:

Experimental Design:

Application Record:

Sprayed: 22/6/86

Time: 12.30-1.45 p.m.

Spray Vehicle: Tractor

Nozzle Type: 8001LP

Pressure (kPa): 190

Volume of Application (L/ha): 67

Speed of Spraying (km/hr): 9

Wind Speed (km/hr): 5-15 (SW) gusting

Temp. Dry Bulb (°C): 15.5

Wet Bulb (°C): 14.5

Relative Humidity: -

Soil Surface: Damp

At Depth: Damp

Stage of Crop:

Stage of Weeds:
Table 15. 87A30 Control of Volunteer legumes (lupins and peas) in oats.

<table>
<thead>
<tr>
<th></th>
<th>Volunteer legumes</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Plant counts</td>
<td>Wt. of seed</td>
<td>No. of seeds</td>
<td>Chemical spray/ha</td>
<td>Oat yield t/ha</td>
<td>Net † $/ha</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 m²* Lupins</td>
<td>10 m²* Peas</td>
<td>/10m²</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Glean + 2,4-D amine</td>
<td>5 g + 500 ml</td>
<td>0.7</td>
<td>26</td>
<td>2.79</td>
<td>2.58</td>
<td>$6.58</td>
<td>3.041</td>
<td>254.95</td>
</tr>
<tr>
<td>2 Glean</td>
<td>5 g</td>
<td>1</td>
<td>27</td>
<td>0.16</td>
<td>.24</td>
<td>$4.48</td>
<td>3.392</td>
<td>287.23</td>
</tr>
<tr>
<td>3 Glean</td>
<td>10 g</td>
<td>0.7</td>
<td>29</td>
<td>0.35</td>
<td>.24</td>
<td>$9.96</td>
<td>3.170</td>
<td>262.66</td>
</tr>
<tr>
<td>4 Dicamba + MCPA</td>
<td>500 ml</td>
<td>1</td>
<td>23</td>
<td>22.35</td>
<td>11.3</td>
<td>$4.38</td>
<td>3.111</td>
<td>263.17</td>
</tr>
<tr>
<td>5 Dicamba + MCPA</td>
<td>1000 ml</td>
<td>0.3</td>
<td>15</td>
<td>4.98</td>
<td>3.29</td>
<td>$8.75</td>
<td>3.140</td>
<td>261.29</td>
</tr>
<tr>
<td>6 Ally</td>
<td>2.5 g</td>
<td>3.7</td>
<td>23</td>
<td>1.34</td>
<td>.94</td>
<td>$2.5</td>
<td>3.222</td>
<td>274.59</td>
</tr>
<tr>
<td>7 Ally</td>
<td>5.0 g</td>
<td>0.7</td>
<td>22</td>
<td>0.21</td>
<td>0.47</td>
<td>0.305</td>
<td>.24</td>
<td>5.0</td>
</tr>
<tr>
<td>8 Diuron + 2,4-D amine</td>
<td>500 ml + 250 ml</td>
<td>0.3</td>
<td>21</td>
<td>35.07</td>
<td>19.5</td>
<td>$4.18</td>
<td>3.222</td>
<td>272.91</td>
</tr>
<tr>
<td>9 Diuron + 2,4-D amine</td>
<td>250 ml + 500 ml</td>
<td>0.3</td>
<td>17</td>
<td>33.43</td>
<td>17.6</td>
<td>$3.67</td>
<td>3.175</td>
<td>269.38</td>
</tr>
<tr>
<td>10 Tordon 242</td>
<td>350 ml</td>
<td>1</td>
<td>15</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>11 Tordon 242</td>
<td>700 ml</td>
<td>0</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

| 12 Nil              | 38                 | 36       | 48.88    | 154.24   | 32.0     | 74.4     | 3.169    | 272.53   |

* Plant counts August 3, 1987
No. of seeds permitted/3.000 tonne = 10.0 seeds/10 m² of crop assuming 1 L = 0.600 kg
No. of seeds permitted/3.400 tonne = 11.3 seeds/10 m² of crop
† Assuming $86/tonne

All lupin treatments satisfactory.

Treatments 4, 8 and 9, i.e. Dicamba 500 ml and both treatments with diuron + 2,4-D amine would not control peas sufficiently to prevent rejection of line of oats. Peas are more difficult to control.

Appears to be some antagonism with the addition of 2,4-D amine to 5 g Glean (gave poor control of peas and may have caused some crop damage), Glean 5 and 10 g, Ally 5 g and Tordon 242 350 ml best treatments. Care when using Tordon because residues may influence lupin and pea growth in following rotation.

Ally 2.5 and 5.0 g did not affect the grain yield but straw growth severely stunted.

See Farmnote for further information.