Tolerance of chickpeas to preemergence applications of BAS 800H and BAS 804H

General Trial Information

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Crop Description

Crop 1: Chickpeas
Variety: Sierra
Planting Date: 4-14-09
Rate: 188 lb/a

Site and Design

Plot Width: 9 FT
Plot Length: 30 FT
Replications: 4
Study Design: Randomized Complete Block

Soil Description

% Sand: 28.6
% Silt: 62.0
% Clay: 9.4
% OM: 2.4
pH: 5.1
Texture: Silt loam
CEC: 14.0

Application Description

Application Date: 4-15-09
Time of Day: 10:15 am
Application Method: Broadcast
Application Timing: PRE
Application Placement: Surface
Air Temperature: 45 F
% Relative Humidity: 72
Wind Velocity: 5 mph
Dew Presence (Y/N): N
Soil Temperature: 52 F
Soil Moisture: Good
% Cloud Cover: 80

Crop Stage At Each Application

Crop 1:
Stage: PRE
Oregon State University
Columbia Basin Ag Research Center

Application Equipment

Appl. Equipment: Handboom
Operating Pressure: 30 psi
Nozzle Type: Flat fan
Nozzle Size: XR-8001
Nozzle Spacing: 18 in
Boom Length: 9 ft
Ground Speed: 3.5 mph
Carrier: Water
Spray Volume: 10 gpa
Propellant: CO2

<table>
<thead>
<tr>
<th>Crop</th>
<th>Chickpeas</th>
<th>Chickpeas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part Rated</td>
<td>Stand</td>
<td>Crop</td>
</tr>
<tr>
<td>Rating Date</td>
<td>5-27-09</td>
<td>8-21-09</td>
</tr>
<tr>
<td>Rating Data Type</td>
<td>Plants/</td>
<td>Yield</td>
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<tr>
<td>Rating Unit</td>
<td>M row</td>
<td>lb/a</td>
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<table>
<thead>
<tr>
<th>Treatment No. Name</th>
<th>Form</th>
<th>Rate</th>
<th>Appl Conc</th>
<th>Type</th>
<th>Prod/a</th>
<th>Prod/a Code</th>
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</thead>
<tbody>
<tr>
<td>1 Untreated control</td>
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<tr>
<td>2 Sharpen</td>
<td>2.85 SC</td>
<td>2.0 fl oz/a</td>
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<td>A</td>
<td>1081</td>
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<td>5 OpTill</td>
<td>68 WG</td>
<td>3 oz/a</td>
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<td>A</td>
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LSD (P=.05) NS NS
Standard Deviation 0.6 146.2
CV 11.69 13.39

Trial Comments

The objective of this trial was to evaluate crop safety of chickpeas (garbanzo bean) to preemergence applications of Sharpen and OpTill. Chickpeas, variety 'Sierra', were planted 4/14/09 with a Great Plains drill at the rate of 188 lb/a. The preemergence materials were applied 4/15/09. Stand counts were taken on 5/27/09 by counting the number of plants/meter of row in two locations per plot. There were no significant differences between any of the treatments and the untreated control. Plots were harvested 8/21/09 with a Hege small plot combine. The harvested samples were further cleaned with an Almaco air cleaner, weighed and the yields converted to lb/a. There were no significant differences in yield between any of the treatments. Under the conditions in this trial, it appears that Sharpen and OpTill are safe to chickpeas when applied preemergence to the crop.