Purdue University

Glyphosate and Resolve applications on winter wheat

Trial ID: 07S-SEP-NTW-64               Study Dir.: Vince Davis
Location: SEPAC                      Investigator: Dr. William G. Johnson

GENERAL TRIAL INFORMATION
Study Director: Vince Davis
Title: Research Associate
Affiliation: Purdue University
Postal Code: 47907
Investigator: Dr. William G. Johnson
Title: Associate Professor
Affiliation: Purdue University
Postal Code: 47907

TRIAL LOCATION
City: Butlerville
State/Prov.: IN
Postal Code: 47223
Country: USA
Directions: Field U.

COOPERATOR/LANDOWNER
Cooperator: Southeast Purdue Ag Center
Country: USA
Org: Purdue University
Phone No: 812-458-6977
Address 1: 4425 E Co Rd 350 N
Fax No: 812-458-6979
Address 2: PO Box 216
City: Butlerville
State/Prov: IN
Postal Code: 47223

Objective: The objective of this study was to evaluate winter wheat crop response to reduced levels of Resolve and glyphosate applications.

CROP AND WEED DESCRIPTION

<table>
<thead>
<tr>
<th>Weed Code</th>
<th>Common Name</th>
<th>Scientific Name</th>
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<tbody>
<tr>
<td>1. TRZAW</td>
<td>Winter wheat</td>
<td>Triticum aestivum (winter)</td>
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Crop 1: TRZAW  WHEAT, WINTER
Variety: Pioneer 25R54

Planting Date: Oct/11/2006
Planting Method: DRILLED
Rate: 1.6 MillionS/A
Depth: 1 IN
Row Spacing: 7.5 INCH

SITE AND DESIGN
Plot Width, Unit: 10 FT
Plot Length, Unit: 30 FT
Reps: 4
Site Type: FIELD
Tillage Type: NO-TILL
Study Design: RANDOMIZED COMPLETE BLOCK

SOIL DESCRIPTION
% OM: 1.4
pH: 6.0
Texture: SILT LOAM
Soil Name: Avonburg
CEC: 5.0
Fert. Level: GOOD

ADDITIONAL MEASURED ELEMENTS

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<tr>
<th>Element</th>
<th>Quantity</th>
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<tr>
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<tr>
<td>Magnesium</td>
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Closest Weather Station: On research station
Distance: 0.5
Unit: MI
Application Description

Application Date: Apr/10/2007
Time of Day: 12:20PM
Application Method: Spray
Application Timing: A: POSPOS
Applic. Placement: BROFOL
Air Temp., Unit: 51 F
% Relative Humidity: 30
Wind Velocity, Unit: 1 MPH
Dew Presence (Y/N): N
Water Hardness: Very Hard
Soil Temp., Unit: 45 F
Soil Moisture: Moist
% Cloud Cover: 0

Crop Stage at Each Application

Crop 1 Code, Stage: TRZAW 3-4 In
Stage Scale: ErlyJoint
Height, Unit: 8 INCH

Weed Stage at Each Application

Weed 1 Code, Stage: TRZAW

Application Equipment

Appl. Equipment: Backpack
Operating Pressure: 17 PSI
Nozzle Type: XR11002
Nozzle Spacing, Unit: 15 IN
Nozzles/Row: 6
Boom Length, Unit: 7.5 FT
Boom Height, Unit: 15 IN
Ground Speed, Unit: 3 MPH
Carrier: TPAC H2O
Spray Volume, Unit: 15 GPA
Propellant: CO2

Trial Comments

4-17-07: Differences in wheat injury could not be detected (7DAT). Pictures were taken, All wheat had leaves discolored and looked necrotic on leaf tips due to frost. Growing points are healthy.
5-8-07: Wheat heights ranged from 19 to 24 inches in untreated and treatments 2-4. Wheat in treatment 1 (1 oz/A Resolve) had wheat height reduced 50%.
## Glyphosate and Resolve applications on winter wheat

**Trial ID:** 07S-SEP-NTW-64  
**Study Dir.:** Vince Davis  
**Location:** SEPAC  
**Investigator:** Dr. William G. Johnson

### Crop Code

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating Date</th>
<th>Crop Stage</th>
<th>Crop Stage Scale</th>
<th>Rating Unit</th>
<th>Rating Data Type</th>
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<tr>
<td>TRZAW</td>
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<td>18-24”</td>
<td>3-4 till</td>
<td>%</td>
<td>PHYGEN</td>
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<td>3-4 till</td>
<td>%</td>
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### Rating Date

- Apr/17/2007
- Apr/24/2007
- Apr/30/2007
- May/08/2007

### Crop Stage

- 18-24"
- 24"
- 3-4 till
- 4 till
- 3-4 nodes
- 4 till

### Weed Stage

- 2-3 nodes
- 3-5 nodes

### Footnote Number

1

### Assessed By

- VMD
- VM
- VMD
- VAM/GN

### Trt-Eval Interval

- 7 DA-A
- 14 DA-A
- 20 DA-A
- 28 DA-A

### Table: Treatment Data

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**Footnote 1:** Differences in wheat injury could not be detected; pictures were taken; all wheat had leaves discolored and looked necrotic on leaf tips due to frost; growing points look healthy.
## Glyphosate and Resolve applications on winter wheat

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### Crop and Rating Data

- **Crop Code:** TRZAW TRZAW TRZAW TRZAW
- **Rating Data Type:** PHYGEN PHYGEN PHYGEN PHYGEN
- **Rating Unit:** % % % %
- **Crop Stage:** 18-24" 24" 3-4 till 3-5nodes
- **Crop Stage Scale:** 3-4 till 4 till 2-3nodes
- **Weed Stage:** 2-3nodes 3-5nodes
- **Footnote Number:** 1
- **Assessed By:** VMD VM VMD VAM/GN
- **Trt-Eval Interval:** 7 DA-A 14 DA-A 20 DA-A 28 DA-A

### Treatment Table

<table>
<thead>
<tr>
<th>Trt No.</th>
<th>Treatment Name</th>
<th>Rate</th>
<th>Unit</th>
<th>Product</th>
<th>Unit</th>
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<td>A</td>
<td>0.0 a</td>
<td>21.7 a</td>
<td>38.3 a</td>
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Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)

Mean comparisons performed only when AOV Treatment F(F) is significant at mean comparison OSL.

Footnote 1: Differences in wheat injury could not be detected; pictures were taken; all wheat had leaves discolored and looked necrotic on leaf tips due to frost; growing points look healthy.