# Aim for Weed Control in Sorghum.

01-26C-N100

OBJECTIVE: Evaluate Aim for broadleaf weed control in sorghum.

SUMMARY:

Sorghum injury 4 days after treatment (DAT) ranged from 59 to 83% from treatments that included Aim compared to 6 to 9% injury from Aatrex. Injury decreased over time with 20 to 45% injury observed from Aim treatments at 15 DAT. Aim alone controlled 94% of common cocklebur and morningglory species and 66% of common ragweed at 15 DAT. All tank mixtures with Aim controlled at least 87% of common cocklebur, morningglory species, and common ragweed. Atrazine alone at 1 lb/A controlled at least 97% of all weed species evaluated.

Sorghum yield ranged from 5 bu/A in nontreated plots to 90 bu/A. Sorghum yield in Aim treated plots ranged from 6 to 70 bu/A with the lowest yield in plots treated with Aim alone. The highest sorghum yield was observed in plots treated with Aatrex alone at 1 lb/A (90 bu/A). Tank mixing Aim with Aatrex at 1 lb/A reduced sorghum yield by 35 bu/A, most likely due to the high level of sorghum injury from Aim.

HERBICIDES WEEDS CROP

AATREX 90 WG AIM 40 WG CLARITY 4 EC PEAK 57 WG PERMIT 75 WG WEEDAR 64 3.8 EC cocklebur, common morningglory, species ragweed, common sorghum

Bryan Young

PLANT, SOIL AND GENERAL AGRICULTURE DEPARTMENT
SOUTHERN ILLINOIS UNIVERSITY

Aim for Weed Control in Sorghum.

Project Code: 01-26C-N100 Location: Belleville Research Center

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA
Trial Status: Final Initiation Date: 4-16-01

Objective:

Evaluate Aim for broadleaf weed control in sorghum.

Weed CodeCommon NameScientific Name1. XANST cocklebur, commonXanthium strumarium L.2. AMBEL ragweed, commonAmbrosia artemisiifolia L.

3. IPOSS morningglory, species Ipomoea sp.

Crop 1:SORVUsorghumVariety:P8500Planting Method:SeededPlanting Date:5-15-01Rate:7LB/ADepth:1.0IN

Row Spacing: 30 IN

Plot Width, Unit: 10 FT Plot Length, Unit: 25 FT Reps: 4
Tillage Type: Reduced-Till Study Design: Randomized complete block

Previous Crop, Year: ZEAMX, 2000

Field Prep./Maintenance: N 150 LB/A, P2O5 0 LB/A, K2O 150 LB/A

Soil Name: Rushville % OM: 1.1 pH: 5.4 CEC: 8

Texture: Silt loam Fert. Level: P1: 76 LB/A, K: 285 LB/A

#### APPLICATION DESCRIPTION

А

Application Date: 6-7-01 Time of Day: 15:00 Application Method: SPRAY Application Timing: 2-4"W Applic. Placement: BROFOL Air Temp., Unit: 82 % Relative Humidity: 56 Wind Velocity, Unit: 3-5 MPH **ABONOR** Soil Moisture: % Cloud Cover: 50

#### CROP STAGE AT EACH APPLICATION

Α

Crop 1 Code, Stage: SORVU V3
Height, Unit: 2-4 IN

### WEED STAGE AT EACH APPLICATION

Α

Weed 1 Code: XANST
Stage(leaves): 4-6
Height(inches): 2-4
Density: High

Weed 2 Code: AMBEL
Stage(leaves): 4-6
Height(inches): 1Density: Low

Weed 3 Code: IPOSS
Stage(leaves): 2-4
Height(inches): 1-3
Density: Low

## APPLICATION EQUIPMENT

Α

Appl. Equipment: CO2 sprayer
Operating Pressure: 40 PSI
Nozzle Type: Flat fan
Nozzle Size: 8002
Boom Length, Unit: 7.5 FT
Spray Volume, Unit: 20 GPA

NOTES: HARVESTED 9-20-01, 2 ROWS X 22 FT.

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Treatment Prob(F)

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Weed Code XANST AMBEL IPOSS SORVU SORVU SORVU Crop Code Rating Data Type Injury Control Control Control Yield Injury bu/A Percent Percent Percent Percent Rating Unit Rating Date 9-20-01 6-11-01 6-22-01 6-22-01 6-22-01 Trt-Eval Interval 4 DA-A 15 DA-A 15 DA-A 15 DA-A Form Form Prod Prod Grow Trt Treatment Rate Appl No. Name Conc Type Rate Unit Rate Unit Code 1 NONTREATED 5 0 0 0 0 0 2 AIM 40 WG 0.008 LB A/A 0.32 OZ/A 2-4"W A 6 69 34 94 66 94 2 ACTIVATOR 90 100 LIQ 0.25 % V/V 0.25 %V/V 2-4"W A 40 WG 3 AIM 0.008 LB A/A 0.32 OZ/A 2-4"W A 55 69 35 97 97 99 3 AATREX 90 WG 0.5 LB A/A 8.9 OZ/A 2-4"W A 0.25 % V/V 0.25 %V/V 2-4"W A 3 ACTIVATOR 90 100 LIQ 40 WG 0.008 LB A/A 0.32 OZ/A 2-4"W A 4 AIM 55 76 45 99 99 87 90 WG 1.0 LB A/A 17.8 OZ/A 2-4"W A 4 AATREX 4 ACTIVATOR 90 100 LIQ 0.25 % V/V 0.25 %V/V 2-4"W A 57 40 WG 0.008 LB A/A 0.32 OZ/A 2-4"W A 64 29 96 99 97 57 WG 0.018 LB A/A 0.5 OZ/A 2-4"W A 5 PEAK 5 ACTIVATOR 90 100 LIQ 0.25 % V/V 0.25 %V/V 2-4"W A 40 WG 0.008 LB A/A 0.32 OZ/A 2-4"W A 6 AIM 63 59 20 99 93 96 6 PERMIT 75 WG 0.032 LB A/A 0.68 OZ/A 2-4"W A 6 ACTIVATOR 90 0.25 % V/V 0.25 %V/V 2-4"W A 100 LIQ 40 WG 0.008 LB A/A 0.32 OZ/A 2-4"W A 7 AIM 50 71 35 93 95 91 7 WEEDAR 64 3.8 EC 0.25 LB A/A 8.4 OZ/A 2-4"W A 0.25 % V/V 0.25 %V/V 2-4"W A 7 ACTIVATOR 90 100 LIQ 40 WG 0.008 LB A/A 0.32 OZ/A 2-4"W A 70 83 34 99 98 8 AIM 97 8 CLARITY 0.188 LB A/A 6 OZ/A 2-4"W A 4 EC 8 ACTIVATOR 90 100 LIQ 0.25 % V/V 0.25 %V/V 2-4"W A 9 AATREX 90 WG 0.5 LB A/A 8.9 OZ/A 2-4"W A 37 9 9 85 98 93 9 ACTIVATOR 90 0.25 % V/V 0.25 %V/V 2-4"W A 100 LIQ 10 AATREX 90 WG 1.0 LB A/A 17.8 OZ/A 2-4"W A 90 6 8 98 99 97 10 ACTIVATOR 90 100 LIQ 0.25 % V/V 0.25 %V/V 2-4"W A LSD (P=.05) 24.8 10.0 11.0 4.9 11.5 3.6 1.339 Replicate F 6.801 0.677 0.297 1.235 0.888 Replicate Prob(F) 0.0015 0.5736 0.2825 0.8272 0.3163 0.4597 Treatment F 62.383 9.667 360.241 14.046 604.375 84.470

0.0001

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**Trial Comments** 

- 1. Protocol: FMC.
- Blanket application: Dual II Magnum at 1.33 pt/A PRE to all plots including the nontreated, applied 5-15-01.
   DA-A = days after 2-4"W application.