

## Option Adjuvant Study on Johnsongrass.

02-ARC24C-N100

**OBJECTIVE:** Determine if adjuvant recommendations with Option can be expanded.

**SUMMARY:** No corn injury was observed from any treatment except those that included AE F150920 which caused 10% injury at 14 DAT (days after treatment). Johnsongrass control 14 DAT ranged from 84 to 89% at 14 DAT with the greatest control from Option plus Adjuvant Liquid 1 plus either 28% UAN or AE F150290, Option plus Activator-90 plus AE F150290, and Option plus Adjuvant Liquid 3 plus 28% UAN. Similar trends in johnsongrass control were observed at 28 DAT.

### HERBICIDES/ADJUVANTS

OPTION 35 WG  
 28% UAN 100 LIQ  
 ACTIVATOR 90 100 LIQ  
 ADJUVANT LIQUID 1 100 LIQ  
 ADJUVANT LIQUID 10 100 LIQ  
 ADJUVANT LIQUID 11 100 LIQ  
 ADJUVANT LIQUID 2 100 LIQ  
 ADJUVANT LIQUID 3 100 LIQ  
 ADJUVANT LIQUID 4 100 LIQ  
 ADJUVANT LIQUID 5 100 LIQ  
 ADJUVANT LIQUID 7 100 LIQ  
 ADJUVANT LIQUID 8 100 LIQ  
 ADJUVANT LIQUID 9 100 LIQ  
 ADJUVANT SOLID 10 100 DRY  
 AE F150920 EC 100 LIQ  
 AMS 100 DRY

### WEEDS

johnsongrass

### CROP

corn, field

Bryan Young

PLANT, SOIL AND GENERAL AGRICULTURE DEPARTMENT

SOUTHERN ILLINOIS UNIVERSITY

## Option Adjuvant Study on Johnsongrass.

Project Code: 02-ARC24C-N100 Location: Agronomy Research Center

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA  
 Trial Status: Final Updated: 10-30-02

**Objective:**

Determine if adjuvant recommendations with Option can be expanded.

**Weed Code Common Name Scientific Name**

1. SORHA johnsongrass Sorghum halepense (L.) Pers.

Crop 1: ZEAMX corn, field Variety: Pioneer 33Y09 BT  
 Planting Method: Seeded Planting Date: 6-13-02  
 Rate: 28000 S/A Depth: 1.5 IN  
 Row Spacing: 30 IN

Plot Width, Unit: 10 FT Plot Length, Unit: 30 FT Reps: 3  
 Tillage Type: Reduced-Till Study Design: Randomized complete block  
 Previous Crop, Year: ZEAMX, 2001

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

Soil Name: Weir % OM: 2.3 pH: 6.7 CEC: 10  
 Texture: Silt loam Fert. Level: P1: 115 LB/A, K: 250 LB/A

**APPLICATION DESCRIPTION****A**

Application Date: 7-5-02  
 Time of Day: 13:00  
 Application Method: Spray  
 Application Timing: 14-18"JG  
 Applic. Placement: BROFOL  
 Air Temp., Unit: 96 F  
 % Relative Humidity: 28  
 Wind Velocity, Unit: 3-5 MPH  
 Dew Presence (Y/N): N  
 Soil Temp., Unit: 80 F  
 Soil Moisture: NORMAL

**CROP STAGE AT EACH APPLICATION****A**

Crop 1 Code, Stage: ZEAMX V3-V4  
 Height, Unit: 16-24 IN

**WEED STAGE AT EACH APPLICATION****A**

Weed 1 Code: SORHA  
 Stage(leaves): 4-5  
 Height(inches): 12-18  
 Density: Medium

**APPLICATION EQUIPMENT****A**

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:**

This study was not harvested.



Weed Code												SORHA	SORHA
Crop Code												ZEAMX	ZEAMX
Rating Data Type												Injury	Injury
Rating Unit												Percent	Percent
Rating Date												7-12-02	7-19-02
Trt-Eval Interval												8-2-02	8-2-02
												7 DA-A	28 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code					
12	OPTION	35	WG	0.0219	LB A/A	1	OZ/A	14-18"	JG A	0	10	0	89	92
12	ACTIVATOR 90	100	LIQ	0.5	% V/V	0.5	%V/V	14-18"	JG A					
12	AE F150920 EC	100	LIQ	0.6	% V/V	0.6	%V/V	14-18"	JG A					
13	OPTION	35	WG	0.0219	LB A/A	1	OZ/A	14-18"	JG A	0	0	0	84	87
13	ADJUVANT LIQUID 8	100	LIQ	0.5	% V/V	0.5	%V/V	14-18"	JG A					
13	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	14-18"	JG A					
14	OPTION	35	WG	0.0219	LB A/A	1	OZ/A	14-18"	JG A	0	0	0	84	85
14	ADJUVANT LIQUID 1	100	LIQ	1.5	PT/A	1.5	PT/A	14-18"	JG A					
14	AMS	100	DRY	3.0	LB/A	3	LB/A	14-18"	JG A					
15	OPTION	35	WG	0.0219	LB A/A	1	OZ/A	14-18"	JG A	0	0	0	88	88
15	ADJUVANT LIQUID 1	100	LIQ	1.5	PT/A	1.5	PT/A	14-18"	JG A					
15	AMS	100	DRY	1.5	LB/A	1.5	LB/A	14-18"	JG A					
16	OPTION	35	WG	0.0219	LB A/A	1	OZ/A	14-18"	JG A	0	0	0	86	85
16	ADJUVANT LIQUID 1	100	LIQ	1.5	PT/A	1.5	PT/A	14-18"	JG A					
16	ADJUVANT LIQUID 10	100	LIQ	0.5	% V/V	0.5	%V/V	14-18"	JG A					
17	OPTION	35	WG	0.0219	LB A/A	1	OZ/A	14-18"	JG A	0	0	0	86	84
17	ADJUVANT LIQUID 1	100	LIQ	1.5	PT/A	1.5	PT/A	14-18"	JG A					
17	ADJUVANT LIQUID 9	100	LIQ	0.5	% V/V	0.5	%V/V	14-18"	JG A					
18	OPTION	35	WG	0.0219	LB A/A	1	OZ/A	14-18"	JG A	0	0	0	87	89
18	ADJUVANT LIQUID 1	100	LIQ	1.5	PT/A	1.5	PT/A	14-18"	JG A					
18	ADJUVANT SOLID 10	100	DRY	1.34	LB/A	1.34	LB/A	14-18"	JG A					
19	OPTION	35	WG	0.0219	LB A/A	1	OZ/A	14-18"	JG A	0	0	0	85	85
19	ADJUVANT LIQUID 11	100	LIQ	2.5	% V/V	2.5	%V/V	14-18"	JG A					
19	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	14-18"	JG A					
20	NONTREATED									0	0	0	0	0
LSD (P=.05)										0.0	0.0	0.0	3.1	4.0
Replicate F										0.000	0.000	0.000	1.067	7.393
Replicate Prob(F)										1.0000	1.0000	1.0000	0.3542	0.0019
Treatment F										0.000	0.000	0.000	629.135	379.081
Treatment Prob(F)										1.0000	1.0000	1.0000	0.0001	0.0001

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Trial Comments

1. Protocol: Aventis.
2. DA-A = days after 14-18"JG application.
3. Ratings on 8-2-02 were also at canopy closure.