

## Johnsongrass Control in Corn.

01-ARC24B-N60

**OBJECTIVE:** Evaluate various herbicides and combinations for control of rhizome johnsongrass.

**SUMMARY:** No corn injury was observed from any treatment. Johnsongrass control 28 days after treatment was at least 93% from all treatments except Spirit alone (89%) and Liberty alone (87%). By 56 days after treatment, johnsongrass control ranged from 82 to 95% with the greatest control provided by Roundup Ultra Max and Spirit plus Accent.

Corn yield was not affected by herbicide treatment.

**HERBICIDES / HYBRIDS**

AATREX 90 WG  
 ACCENT 75 WG  
 AE F130360 35 WG  
 HORNET 68.5 WG  
 LIBERTY 1.67 EC  
 LIGHTNING 70 WG  
 ROUNDUP ULTRA MAX 3.7 SL  
 SPIRIT 57 WG  
 CLEARFIELD P33P71 CL  
 LIBERTY LINK P33G28 LL  
 ROUNDUP READY DK626 RR

**WEEDS**

johnsongrass

**CROP**

corn, field

Bryan Young

PLANT, SOIL AND GENERAL AGRICULTURE DEPARTMENT

SOUTHERN ILLINOIS UNIVERSITY

Johnsongrass Control in Corn.

Project Code: 01-ARC24B-N60 Location: Belleville Research Center

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

City State Zip Country: Carbondale IL 62901 USA  
 Trial Status: Final Initiation Date: 4-20-01

**Objective:**

Evaluate various herbicides and combinations for control of  
 rhizome johnsongrass.

Weed Code	Common Name	Scientific Name
1.	SORHA johnsongrass	Sorghum halepense (L.) Pers.

Crop 1:	ZEAMX corn, field	Variety:	See note
Planting Method:	Seeded	Planting Date:	5-3-01
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:	Split-modified		
Previous Crop, Year:	NONE , 2000				
Field Prep./Maintenance:	N 150 LB/A, P205 100 LB/A, K20 300 LB/A				

Soil Name:	Weir	% OM:	2.1	pH:	6.3	CEC:	9
Texture:	Silt loam	Fert. Level:	P1: 56 LB/A,	K:	185 LB/A		

**APPLICATION DESCRIPTION****A**

Application Date:	6-6-01
Time of Day:	13:30
Application Method:	Spray
Application Timing:	10-18"JG
Applic. Placement:	BROFOL
Air Temp., Unit:	89 F
% Relative Humidity:	60
Wind Velocity, Unit:	2-3 MPH
Soil Temp., Unit:	83 F
Soil Moisture:	ABONOR

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

Crop 1 Code, Stage:	ZEAMX V5-V6
Height, Unit:	14-22 IN

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

Weed 1 Code:	SORHA
Stage(leaves):	2-8
Height(inches):	2-19
Density:	High

**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: HARVESTED 10-4-01, 2 ROWS X 28 FT.**

Corn hybrids are P33G28 LL, P33P71 CL and DK626 RR, see treatment list.

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Weed Code	Crop Code	Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval	ZEAMX			SORHA							
						Yield bu/A	Injury Percent	Injury Percent	Control Percent	Control Percent	Control Percent					
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	10-4-01	6-20-01	7-4-01	8-1-01	6-20-01	7-4-01	8-1-01
1	LIBERTY LINK P33G28 LL									109	0	0	0	0	0	0
1	NONTREATED															
2	CLEARFIELD P33P71 CL									121	0	0	0	89	97	94
2	ACCENT	75	WG	0.0234	LB A/A	0.5	OZ/A	10-18"	GR A							
2	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	10-18"	GR A							
2	AMS	100	DRY	2.5	LB A/A	12.5	LB/100GAL	10-18"	GR A							
3	ROUNDUP READY DK626 RR									77	0	0	0	87	93	89
3	ACCENT	75	WG	0.0313	LB A/A	0.67	OZ/A	10-18"	GR A							
3	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	10-18"	GR A							
3	AMS	100	DRY	2.5	LB A/A	12.5	LB/100GAL	10-18"	GR A							
4	LIBERTY LINK P33G28 LL									137	0	0	0	85	89	82
4	SPIRIT	57	WG	0.0356	LB A/A	1	OZ/A	10-18"	GR A							
4	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	10-18"	GR A							
4	AMS	100	DRY	2.5	LB A/A	12.5	LB/100GAL	10-18"	GR A							
5	CLEARFIELD P33P71 CL									111	0	0	0	94	97	95
5	SPIRIT	57	WG	0.0356	LB A/A	1	OZ/A	10-18"	GR A							
5	ACCENT	75	WG	0.0156	LB A/A	0.33	OZ/A	10-18"	GR A							
5	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	10-18"	GR A							
5	AMS	100	DRY	2.5	LB A/A	12.5	LB/100GAL	10-18"	GR A							
6	ROUNDUP READY DK626 RR									66	0	0	0	88	94	91
6	AE F130360	35	WG	0.02734	LB A/A	1.25	OZ/A	10-18"	GR A							
6	DESTINY MSO	100	LIQ	1.0	% V/V	1	%V/V	10-18"	GR A							
6	AMS	100	DRY	2.5	LB A/A	12.5	LB/100GAL	10-18"	GR A							
7	LIBERTY LINK P33G28 LL									121	0	0	0	88	87	82
7	LIBERTY	1.67	EC	0.365	LB A/A	28	OZ/A	10-18"	GR A							
7	AMS	100	DRY	3.0	LB A/A	15	LB/100GAL	10-18"	GR A							
8	CLEARFIELD P33P71 CL									114	0	0	0	90	93	87
8	LIGHTNING	70	WG	0.056	LB A/A	1.28	OZ/A	10-18"	GR A							
8	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	10-18"	GR A							
8	AMS	100	DRY	2.5	LB A/A	12.5	LB/100GAL	10-18"	GR A							
9	ROUNDUP READY DK626 RR									66	0	0	0	98	98	95
9	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	10-18"	GR A							
9	AMS	100	DRY	2.5	LB A/A	12.5	LB/100GAL	10-18"	GR A							
10	LIBERTY LINK P33G28 LL									138	0	0	0	95	93	89
10	LIBERTY	1.67	EC	0.365	LB A/A	28	OZ/A	10-18"	GR A							
10	ACCENT	75	WG	0.0156	LB A/A	0.33	OZ/A	10-18"	GR A							
10	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	10-18"	GR A							
10	AMS	100	DRY	2.5	LB A/A	12.5	LB/100GAL	10-18"	GR A							
11	CLEARFIELD P33P71 CL									120	0	0	0	91	97	94
11	LIGHTNING	70	WG	0.056	LB A/A	1.28	OZ/A	10-18"	GR A							
11	ACCENT	75	WG	0.0156	LB A/A	0.33	OZ/A	10-18"	GR A							
11	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	10-18"	GR A							
11	AMS	100	DRY	2.5	LB A/A	12.5	LB/100GAL	10-18"	GR A							
12	ROUNDUP READY DK626 RR									79	0	0	0	89	96	89
12	ACCENT	75	WG	0.0313	LB A/A	0.67	OZ/A	10-18"	GR A							
12	HORNET	68.5	WG	0.128	LB A/A	3	OZ/A	10-18"	GR A							
12	AATREX	90	WG	1.0	LB A/A	1.1	LB/A	10-18"	GR A							
12	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	10-18"	GR A							
12	AMS	100	DRY	2.0	% W/W	17	LB/100GAL	10-18"	GR A							
LSD (P=.05)										44.2	0.0	0.0	0.0	4.9	5.0	5.4
Replicate F										6.251	0.000	0.000	0.000	0.739	0.181	0.153
Replicate Prob(F)										0.0071	1.0000	1.0000	1.0000	0.4892	0.8360	0.8589
Treatment F										2.991	0.000	0.000	0.000	253.155	256.291	200.873
Treatment Prob(F)										0.0138	1.0000	1.0000	1.0000	0.0001	0.0001	0.0001

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Trial Comments

1. Protocol: Dupont (USA-01-150) trts 1-11; Dow trt 12.
2. Application timing is 10-18 inch johnsongrass, but prior to V6 corn.
3. DA-A = day after 10-18" JG application.
4. Maintain plot integrity to evaluate rhizome johnsongrass the following season.