

Effect of Adjuvant on Roundup Ready Corn Control from Clethodim in Roundup Ready Soybean - Roundup Original Max.

Project Code: 06-HRC-WU12-SWS120 Location: Horticulture Research Center

Investigator: Bryan Young

Investigator: Bryan Young, Associate Professor, Southern Illinois University

City State Zip Country: Carbondale IL 62901 USA
 Trial Status: Final Updated: 8-4-06

Objective:

Evaluate the effect of adjuvants on Roundup Ready corn control from clethodim in Roundup Ready soybean.

Weed Code	Common Name	Scientific Name
1. ZEAMX	corn, volunteer	Zea mays L.
2. AMATA	waterhemp, common	Amaranthus rudis Sauer
3. IPOSS	morningglory, species	Ipomoea sp.

Crop 1: GLXMA soybean Variety: P94M80 RR
 Planting Method: Seeded Planting Date: 6-5-06
 Rate: 75 lb/A Depth: 1.0 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: GLXMA, 2005

% OM: 2.8 pH: 6.7 CEC: 10
 Texture: Silt loam Fert. Level: P1: 92 LB/A, K: 334 LB/A

APPLICATION DESCRIPTION

A
 Application Date: 6-27-06
 Time of Day: 7:00
 Application Method: Spray
 Application Timing: 12"CN
 Applic. Placement: BROFOL
 Air Temp., Unit: 73 F
 % Relative Humidity: 77
 Wind Velocity, Unit: 2 MPH
 Dew Presence (Y/N): Y
 Soil Moisture: NORMAL
 % Cloud Cover: 0

CROP STAGE AT EACH APPLICATION

A
 Crop 1 Code, Stage: GLXMA V3
 Height, Unit: 7 IN

WEED STAGE AT EACH APPLICATION

A
Weed 1 Code: ZEAMX
Stage(leaves): 5
Height(inches): 10-12
Density: High
Weed 2 Code: AMATA
Stage(leaves): 5-8
Height(inches): 4-8
Density: High
Weed 3 Code: IPOSS
Stage(leaves): 5-8
Height(inches): 5-8
Density: Low

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: 15 GPA

NOTES:

Effect of Adjuvant on Roundup Ready Corn Control from Clethodim in Roundup Ready Soybean - Roundup Original Max.

Project Code: 06-HRC-WU12-SWS120 Location: Horticulture Research Center

Investigator: Bryan Young

Weed Code

Crop Code

Rating Data Type

Rating Unit

Rating Date

Trt-Eval Interval

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	GLXMA Injury Percent 6-30-06 3 DA-A	GLXMA Injury Percent 7-4-06 7 DA-A	GLXMA Injury Percent 7-11-06 14 DA-A	GLXMA Injury Percent 7-25-06 28 DA-A	ZEAMX Control Percent 7-4-06 7 DA-A	ZEAMX Control Percent 7-11-06 14 DA-A	ZEAMX Control Percent 7-25-06 28 DA-A
1	ROUNDUP ORIG MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	12"	CN A	0	0	0	0	81	90	94
1	ARROW	2	EC	0.094	lb ai/a	6	fl oz/a	12"	CN A							
1	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	12"	CN A							
2	ROUNDUP ORIG MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	12"	CN A	0	0	0	0	83	91	95
2	ARROW	2	EC	0.094	lb ai/a	6	fl oz/a	12"	CN A							
2	CHEM-SURF 80	100	LIQ	0.25	% v/v	2	pt/100 gal	12"	CN A							
2	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	12"	CN A							
3	ROUNDUP ORIG MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	12"	CN A	0	0	0	0	82	89	94
3	ARROW	2	EC	0.094	lb ai/a	6	fl oz/a	12"	CN A							
3	TRANSLATE	100	LIQ	0.125	% v/v	1	pt/100 gal	12"	CN A							
3	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	12"	CN A							
4	SEE COMMENT #5									15	12	3	0	84	96	92
4	ROUNDUP ORIG MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	12"	CN A							
4	ARROW	2	EC	0.094	lb ai/a	6	fl oz/a	12"	CN A							
4	TRANSLATE	100	LIQ	0.25	% v/v	2	pt/100 gal	12"	CN A							
4	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	12"	CN A							
5	ROUNDUP ORIG MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	12"	CN A	0	0	0	0	91	98	99
5	ARROW	2	EC	0.094	lb ai/a	6	fl oz/a	12"	CN A							
5	BETWEEN	100	LIQ	0.5	% v/v	4	pt/100 gal	12"	CN A							
5	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	12"	CN A							
6	ROUNDUP ORIG MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	12"	CN A	0	0	0	0	87	97	99
6	ARROW	2	EC	0.094	lb ai/a	6	fl oz/a	12"	CN A							
6	PREMIUM COC	100	LIQ	1	% v/v	8	pt/100 gal	12"	CN A							
6	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	12"	CN A							
7	ROUNDUP ORIG MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	12"	CN A	0	0	0	0	81	89	93
7	ARROW	2	EC	0.094	lb ai/a	6	fl oz/a	12"	CN A							
7	PAYOFF PLUS	100	DRY	1.5	% w/w	12.5	lb/100 gal	12"	CN A							
8	NONTREATED									0	0	0	0	0	0	0
LSD (P=.05)										0.0	0.0	1.8	0.0	5.5	2.1	8.0
Replicate F										0.000	0.000	1.000	0.000	1.707	1.133	2.798
Replicate Prob(F)										1.0000	1.0000	0.3927	1.0000	0.2170	0.3500	0.0950
Treatment F										0.000	0.000	4.000	0.000	275.698	2282.407	164.673
Treatment Prob(F)										1.0000	1.0000	0.0131	1.0000	0.0001	0.0001	0.0001

Effect of Adjuvant on Roundup Ready Corn Control from Clethodim in Roundup Ready Soybean - Roundup Original Max.

Project Code: 06-HRC-WU12-SWS120 Location: Horticulture Research Center

Investigator: Bryan Young

Weed Code	AMATA	AMATA	AMATA	IPOSS	IPOSS	IPOSS
Crop Code						
Rating Data Type	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent
Rating Date	7-4-06	7-11-06	7-25-06	7-4-06	7-11-06	7-25-06
Trt-Eval Interval	7 DA-A	14 DA-A	28 DA-A	7 DA-A	14 DA-A	28 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code						
1	ROUNDUP ORIG MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	12"CN	A	94	98	96	63	65	84
1	ARROW	2	EC	0.094	lb ai/a	6	fl oz/a	12"CN	A						
1	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	12"CN	A						
2	ROUNDUP ORIG MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	12"CN	A	94	96	97	78	82	89
2	ARROW	2	EC	0.094	lb ai/a	6	fl oz/a	12"CN	A						
2	CHEM-SURF 80	100	LIQ	0.25	% v/v	2	pt/100 gal	12"CN	A						
2	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	12"CN	A						
3	ROUNDUP ORIG MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	12"CN	A	95	93	89	57	83	90
3	ARROW	2	EC	0.094	lb ai/a	6	fl oz/a	12"CN	A						
3	TRANSLATE	100	LIQ	0.125	% v/v	1	pt/100 gal	12"CN	A						
3	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	12"CN	A						
4	SEE COMMENT #5									93	96	91	62	83	88
4	ROUNDUP ORIG MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	12"CN	A						
4	ARROW	2	EC	0.094	lb ai/a	6	fl oz/a	12"CN	A						
4	TRANSLATE	100	LIQ	0.25	% v/v	2	pt/100 gal	12"CN	A						
4	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	12"CN	A						
5	ROUNDUP ORIG MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	12"CN	A	95	98	98	82	90	94
5	ARROW	2	EC	0.094	lb ai/a	6	fl oz/a	12"CN	A						
5	BETWEEN	100	LIQ	0.5	% v/v	4	pt/100 gal	12"CN	A						
5	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	12"CN	A						
6	ROUNDUP ORIG MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	12"CN	A	95	97	97	73	88	93
6	ARROW	2	EC	0.094	lb ai/a	6	fl oz/a	12"CN	A						
6	PREMIUM COC	100	LIQ	1	% v/v	8	pt/100 gal	12"CN	A						
6	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	12"CN	A						
7	ROUNDUP ORIG MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	12"CN	A	94	96	98	65	80	93
7	ARROW	2	EC	0.094	lb ai/a	6	fl oz/a	12"CN	A						
7	PAYOFF PLUS	100	DRY	1.5	% w/w	12.5	lb/100 gal	12"CN	A						
8	NONTREATED									0	0	0	0	0	0
LSD (P=.05)										4.4	3.5	5.0	18.8	7.7	6.6
Replicate F										0.873	0.816	0.750	0.351	1.795	2.163
Replicate Prob(F)										0.4394	0.4622	0.4904	0.7098	0.2023	0.1518
Treatment F										525.570	899.215	428.402	17.174	140.380	219.903
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Trial Comments

1. Protocol: United Suppliers.
2. Ratings: CI 3 + 7 DAT; WC 7, 14 + 28 DAT.
3. Roundup Ready corn planted in 30 inch rows perpendicular to soybean rows.
4. DA-A = Days after 12"CN application.
IPOSS was IPOHE (ivyleaf morningglory) and IPOLA (pitted morningglory).
5. Treatment 4, injury may have been "tank-contamination".
6. Not harvested.