

## Roundup Ready Alfalfa Evaluation.

Project Code: 07-7 Location: Belleville Research Center  
Investigator: Bryan Young

Investigator: Bryan Young, Associate Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA  
Trial Status: Final Updated: 1-23-08

**Objective:**

Evaluate the performance of RR alfalfa in terms of crop response, weed control and yield compared with standard herbicide treatments.

Weed Code	Common Name	Scientific Name
1. PANDI	panicum, fall	Panicum dichotomiflorum Michx.
2. CYPES	nutsedge, yellow	Cyperus esculentus L.
3. CHEAL	lambsquarters, common	Chenopodium album L.
4. AMATA	waterhemp, common	Amaranthus rudis Sauer
5. SOLPT	nightshade, eastern black	Solanum ptycanthum Dunal
6. SETLU	foxtail, yellow	Setaria glauca (L.) beauv.

Crop 1: MEDSA alfalfa Variety: RR05-060104  
Planting Method: Seeded Planting Date: 4-11-06  
Rate: 18 lb/A

Plot Width, Unit: 10 FT Plot Length, Unit: 29 FT Reps: 4  
Tillage Type: Reduced-Till Study Design: Randomized complete block  
Previous Crop, Year: \_\_\_\_\_, 2005  
Field Prep./Maintenance: N 0 LB/A, P205 0 LB/A, K20 100 LB/A

Soil Name: Hosmer % OM: 1.8 pH: 6.4 CEC: 8  
Texture: Silt loam Fert. Level: P1: 87 LB/A, K: 415 LB/A

**APPLICATION DESCRIPTION**

	A	B	C	D
Application Date:	4-11-06	5-19-06	6-9-06	5-30-06
Time of Day:	8:00	11:00	10:00	9:00
Application Method:	Spray	Spray	Spray	Spray
Application Timing:	PPI	1-2 Trifol	3WA-B	3-4 Trifol
Applic. Placement:	BROSIO	BROFOL	BROFOL	BROFOL
Air Temp., Unit:	60 F	76 F	84 F	76 F
% Relative Humidity:	70	54	72	94
Wind Velocity, Unit:	5 MPH	1-2 MPH	1-2 MPH	1-3 MPH
Soil Moisture:	NORMAL	NORMAL	NORMAL	NORMAL

**CROP STAGE AT EACH APPLICATION**

	A	B	C	D
Crop 1 Code, Stage:	MEDSA NA	MEDSA 1-2T	MEDSA 10-14T	MEDSA 3-4T
Height, Unit:	NA NA	1-3 IN	7-9 IN	4-5 IN

**WEED STAGE AT EACH APPLICATION**

	A	B	C	D
Weed 1 Code:			PANDI	PANDI
Stage(leaves):			3-4	3-4
Height(inches):			3-4	6-7
Density:			Low	Medium
Weed 2 Code:		CYPES	CYPES	CYPES
Stage(leaves):		5-6	6-7	8-9
Height(inches):		3-5	6-7	6-7
Density:		Medium	Low	Medium
Weed 3 Code:		CHEAL		CHEAL
Stage(leaves):		6-8		20-22
Height(inches):		2-3		8-9
Density:		Medium		Medium
Weed 4 Code:				AMATA
Stage(leaves):				8-10
Height(inches):				5-6
Density:				Low
Weed 6 Code:			SETLU	SETLU
Stage(leaves):			3-4	3-4
Height(inches):			3-4	6-7
Density:			Low	Medium

**APPLICATION EQUIPMENT**

	A	B	C	D
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer
Operating Pressure:	40 PSI	40 PSI	40 PSI	40 PSI
Nozzle Type:	Flat fan	Flat fan	Flat fan	Flat fan
Nozzle Size:	8002	8002	8002	8002
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA	15 GPA

**NOTES:**

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Weed Code  
 Crop Code  
 Rating Data Type  
 Rating Unit  
 Rating Date  
 Trt-Eval Interval

MEDSA  
 Plants  
 1.0 sqft  
 8-17-07

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	
1	NONTREATED									37.2 a
2	ROUNDUP W-MAX	4.5 SL		0.75 lb ae/a		21.3 fl oz/a		1-2Trifol	B	31.7 abc
2	AMS	100 DRY		2.0 % w/w		17 lb/100 gal		1-2Trifol	B	
2	ROUNDUP W-MAX	4.5 SL		0.75 lb ae/a		21.3 fl oz/a		3WA-B	C	31.7 abc
2	AMS	100 DRY		2.0 % w/w		17 lb/100 gal		3WA-B	C	
3	ROUNDUP W-MAX	4.5 SL		1.5 lb ae/a		42.7 fl oz/a		1-2Trifol	B	36.3 ab
3	AMS	100 DRY		2.0 % w/w		17 lb/100 gal		1-2Trifol	B	
3	ROUNDUP W-MAX	4.5 SL		1.5 lb ae/a		42.7 fl oz/a		3WA-B	C	36.3 ab
3	AMS	100 DRY		2.0 % w/w		17 lb/100 gal		3WA-B	C	
4	ROUNDUP W-MAX	4.5 SL		0.75 lb ae/a		21.3 fl oz/a		3-4Trifol	D	30.9 bc
4	AMS	100 DRY		2.0 % w/w		17 lb/100 gal		3-4Trifol	D	
5	ROUNDUP W-MAX	4.5 SL		1.5 lb ae/a		42.7 fl oz/a		3-4Trifol	D	30.3 c
5	AMS	100 DRY		2.0 % w/w		17 lb/100 gal		3-4Trifol	D	
6	TREFLAN	4 EC		0.75 lb ai/a		1.5 pt/a		PPI	A	34.0 abc
7	PURSUIT	2 SL		0.063 lb ai/a		4 oz/a		3-4Trifol	D	33.2 abc
7	ACTIVATOR 90	100 LIQ		0.25 % v/v		0.25 % v/v		3-4Trifol	D	
7	AMS	100 DRY		1.8 % w/w		15 lb/100 gal		3-4Trifol	D	
8	TREFLAN	4 EC		0.75 lb ai/a		1.5 pt/a		PPI	A	36.3 ab
8	ROUNDUP W-MAX	4.5 SL		0.75 lb ae/a		21.3 fl oz/a		3-4Trifol	D	
8	AMS	100 DRY		2.0 % w/w		17 lb/100 gal		3-4Trifol	D	
9	ROUNDUP W-MAX	4.5 SL		0.75 lb ae/a		21.3 fl oz/a		3-4Trifol	D	32.0 abc
9	PURSUIT	2 SL		0.063 lb ai/a		4 oz/a		3-4Trifol	D	
9	AMS	100 DRY		2.0 % w/w		17 lb/100 gal		3-4Trifol	D	
10	ROUNDUP W-MAX	4.5 SL		0.75 lb ae/a		21.3 fl oz/a		1-2Trifol	B	34.6 abc
10	AMS	100 DRY		2.0 % w/w		17 lb/100 gal		1-2Trifol	B	
10	ROUNDUP W-MAX	4.5 SL		0.75 lb ae/a		21.3 fl oz/a		3WA-B	C	
10	AMS	100 DRY		2.0 % w/w		17 lb/100 gal		3WA-B	C	
10	Destructive sample spring 2007									
LSD (P=.05)										5.58
Replicate F										0.719
Replicate Prob(F)										0.5494
Treatment F										1.572
Treatment Prob(F)										0.1739

Means followed by same letter do not significantly differ (P=.05, LSD)

Trial Comments

1. Protocol: Monsanto (continuation of SIU project code 06-7).
2. Ratings: See last year's report for 2006 data collection and results.
3. 1.0 sqft = One square foot.