

## Cadet Postemergence Comparisons in Soybean.

Trial ID: 11-T4-N

Location: Belleville Res. Center

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu  
 City State Zip Country: Belleville IL 62221 USA  
 Trial Status: FINAL Initiation Date: 5-24-11

Objectives: Evaluate the efficacy of Cadet for postemergence weed control in soybean.

Crop 1: GLXMA Soybean Variety: AG 4005 Description: RR  
 Planting Method: SEEDDED Planting Date: 5-24-11  
 Rate, Unit: 75 LB/A Depth, Unit: 1.0 IN  
 Row Spacing, Unit: 30 IN

Pest 1 Type: W Code: SETFA Setaria faberi Herrm. foxtail, giant  
 Pest 2 Type: W Code: AMATA Amaranthus rudis Sauer waterhemp, common  
 Pest 3 Type: W Code: IPOHE Ipomoea hederacea (L.) Jacq. morningglory, ivyleaf

Plot Width, Unit: 10 FT Site Type: FIELD  
 Plot Length, Unit: 27 FT Tillage Type: REDUCED-TILL  
 Replications: 3 Study Design: Randomized Complete Block

## Prior Crops, Year

1. ZEAMD 2010

Field Prep./Maintenance: N 0 LB/A, P205 50 LB/A, K20 100 LB/A

% OM: 1.9 Texture: SILT LOAM  
 pH: 6.3 Soil Name: BETHALTO  
 CEC: 12 Fert. Level: P1: 50 LB/A, K: 374 LB/A

## Application Description

	A	B
Application Date:	6-16-11	7-8-11
Time of Day:	10:00	8:00
Application Method:	Spray	Spray
Application Timing:	2-4"W	3-4"RG
Application Placement:	BROFOL	BROFOL
Applied By:	BA	JRK
Air Temperature, Unit:	83 F	74 F
% Relative Humidity:	43	87
Wind Velocity, Unit:	2 MPH	4 MPH
Wind Direction:	SW	N
Dew Presence (Y/N):		N
Soil Temperature, Unit:	74 F	79 F
Soil Moisture:	ABONOR	ABONOR
% Cloud Cover:	0	20

	A	B
Crop stage at application:	V2	R1
Height Min, Max (inch):	3 4	12 18

## Pest Stage At Each Application

	A	B
Application Date:	6-16-11	7-8-11
Weed Code:	SETFA	SETFA
Stage Majority (leaves):	6	3
Stage Min, Max:	5 6	2 4
Height Majority:	4 IN	3 IN
Height Min, Max:	3 4	1 4
Density, Unit:	1 FT2	0.1 FT2
Weed Code:	AMATA	AMATA
Stage Majority (leaves):	10+	8
Stage Min, Max:	6 10+	2 10+
Height Majority:	4 IN	6 IN
Height Min, Max:	2 5	1 15
Density, Unit:	1 FT2	0.1 FT2
Weed Code:	IPOHE	IPOHE
Stage Majority (leaves):	10+	8
Stage Min, Max:	6 10+	5 12
Height Majority:	4 IN	3 IN
Height Min, Max:	3 5	2 4
Density, Unit:	0.1 FT2	0.01 FT2

## Application Equipment

Appl. Equipment:	CO2 sprayer	CO2 sprayer
Operating Pressure:	30 PSI	30 PSI
Nozzle Type:	Flat fan	Flat fan
Nozzle Size:	XR 8002	XR 8002
Boom Length, Unit:	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA

Southern Illinois University

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Pest Code  
Crop Code  
Rating Date  
Rating Data Type  
Rating Unit  
Rating Timing  
Trt-Eval Interval

GLXMA GLXMA GLXMA GLXMA  
6-23-11 7-7-11 7-15-11 7-29-11  
Injury Injury Injury Injury  
Percent Percent Percent Percent  
7 DA-A 21 DA-A 7 DA-B 21 DA-B

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
1	CADET	0.91	EC	0.00427	lb ai/a	0.6	fl oz/a	2-4"W	A	7	b	0	b
1	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	A				
1	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A				
1	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
1	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
2	FLEXSTAR	1.88	EC	0.091	lb ai/a	6.2	fl oz/a	2-4"W	A	6	c	0	b
2	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	A				
2	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A				
2	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
2	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
3	CADET	0.91	EC	0.00427	lb ai/a	0.6	fl oz/a	2-4"W	A	8	b	0	b
3	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	A				
3	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A				
3	CADET	0.91	EC	0.00427	lb ai/a	0.6	fl oz/a	3-4"RG	B				
3	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
3	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
4	FLEXSTAR	1.88	EC	0.235	lb ai/a	16	fl oz/a	2-4"W	A	10	a	2	a
4	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	A				
4	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A				
4	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
4	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
5	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	A	0	d	0	b
5	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A			7	a
5	FLEXSTAR	1.88	EC	0.235	lb ai/a	16	fl oz/a	3-4"RG	B				3
5	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
5	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
6	EXTREME	2.17	SL	0.81	lb ai/a	3	pt/a	2-4"W	A	0	d	0	b
6	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A			0	c
6	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
6	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	A	0	d	0	b
7	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A			0	c
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
7	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
8	NONTREATED									0	d	0	b
LSD (P=.05)										1.3	0.4	1.1	0.0
Replicate F										0.505	1.000	1.000	0.000
Replicate Prob(F)										0.6140	0.3927	0.3927	1.0000
Treatment F										94.680	25.000	61.571	0.000
Treatment Prob(F)										0.0001	0.0001	0.0001	1.0000

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

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Pest Code	SETFA	SETFA	SETFA	SETFA
Crop Code				
Rating Date	6-23-11	7-7-11	7-15-11	7-29-11
Rating Data Type	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent
Rating Timing				
Trt-Eval Interval	7 DA-A	21 DA-A	7 DA-B	21 DA-B

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
1	CADET	0.91	EC	0.00427	lb ai/a	0.6	fl oz/a	2-4"W	A	97 bc	96 ab	96 c	96 bc
1	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	A				
1	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A				
1	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
1	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
2	FLEXSTAR	1.88	EC	0.091	lb ai/a	6.2	fl oz/a	2-4"W	A	98 a	97 ab	99 a	97 abc
2	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	A				
2	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A				
2	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
2	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
3	CADET	0.91	EC	0.00427	lb ai/a	0.6	fl oz/a	2-4"W	A	98 a	95 b	98 ab	97 ab
3	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	A				
3	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A				
3	CADET	0.91	EC	0.00427	lb ai/a	0.6	fl oz/a	3-4"RG	B				
3	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
3	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
4	FLEXSTAR	1.88	EC	0.235	lb ai/a	16	fl oz/a	2-4"W	A	98 ab	97 ab	98 ab	97 a
4	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	A				
4	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A				
4	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
4	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
5	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	A	98 ab	97 ab	98 ab	97 abc
5	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A				
5	FLEXSTAR	1.88	EC	0.235	lb ai/a	16	fl oz/a	3-4"RG	B				
5	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
5	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
6	EXTREME	2.17	SL	0.81	lb ai/a	3	pt/a	2-4"W	A	97 c	98 a	98 ab	98 a
6	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A				
6	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
6	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	A	97 bc	96 ab	97 bc	95 c
7	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A				
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
7	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
8	NONTREATED									0 d	0 c	0 d	0 d
LSD (P=.05)										0.6	2.4	1.7	1.4
Replicate F										4.200	1.871	1.159	3.090
Replicate Prob(F)										0.0373	0.1904	0.3422	0.0773
Treatment F										29991.554	1934.862	3993.404	5306.919
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001

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

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Crop Code				
Rating Date	6-23-11	7-7-11	7-15-11	7-29-11
Rating Data Type	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent
Rating Timing				
Trt-Eval Interval	7 DA-A	21 DA-A	7 DA-B	21 DA-B

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
1	CADET	0.91	EC	0.00427	lb ai/a	0.6	fl oz/a	2-4"W	A	98 abc	83 c	97 b	92 ab
1	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	A				
1	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A				
1	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
1	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
2	FLEXSTAR	1.88	EC	0.091	lb ai/a	6.2	fl oz/a	2-4"W	A	98 abc	95 ab	99 a	98 a
2	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	A				
2	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A				
2	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
2	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
3	CADET	0.91	EC	0.00427	lb ai/a	0.6	fl oz/a	2-4"W	A	97 c	90 b	97 b	83 b
3	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	A				
3	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A				
3	CADET	0.91	EC	0.00427	lb ai/a	0.6	fl oz/a	3-4"RG	B				
3	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
3	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
4	FLEXSTAR	1.88	EC	0.235	lb ai/a	16	fl oz/a	2-4"W	A	99 ab	97 a	99 a	99 a
4	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	A				
4	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A				
4	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
4	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
5	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	A	97 c	89 b	98 ab	90 ab
5	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A				
5	FLEXSTAR	1.88	EC	0.235	lb ai/a	16	fl oz/a	3-4"RG	B				
5	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
5	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
6	EXTREME	2.17	SL	0.81	lb ai/a	3	pt/a	2-4"W	A	98 bc	93 ab	98 ab	99 a
6	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A				
6	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
6	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	A	99 a	93 ab	99 a	98 a
7	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A				
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
7	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
8	NONTREATED									0 d	0 d	0 c	0 c
LSD (P=.05)										1.3	5.8	1.6	14.1
Replicate F										1.430	1.784	1.324	0.875
Replicate Prob(F)										0.2722	0.2041	0.2973	0.4384
Treatment F										6514.226	293.889	4117.669	52.414
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001

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

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Crop Code				
Rating Date	6-23-11	7-7-11	7-15-11	7-29-11
Rating Data Type	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent
Rating Timing				
Trt-Eval Interval	7 DA-A	21 DA-A	7 DA-B	21 DA-B

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
1	CADET	0.91	EC	0.00427	lb ai/a	0.6	fl oz/a	2-4"W	A	96 a	95 a	94 bc	90 ab
1	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	A				
1	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A				
1	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
1	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
2	FLEXSTAR	1.88	EC	0.091	lb ai/a	6.2	fl oz/a	2-4"W	A	95 a	91 b	93 c	89 b
2	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	A				
2	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A				
2	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
2	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
3	CADET	0.91	EC	0.00427	lb ai/a	0.6	fl oz/a	2-4"W	A	96 a	93 ab	97 ab	96 a
3	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	A				
3	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A				
3	CADET	0.91	EC	0.00427	lb ai/a	0.6	fl oz/a	3-4"RG	B				
3	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
3	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
4	FLEXSTAR	1.88	EC	0.235	lb ai/a	16	fl oz/a	2-4"W	A	97 a	95 a	94 bc	93 ab
4	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	A				
4	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A				
4	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
4	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
5	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	A	58 b	95 a	99 a	95 a
5	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A				
5	FLEXSTAR	1.88	EC	0.235	lb ai/a	16	fl oz/a	3-4"RG	B				
5	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
5	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
6	EXTREME	2.17	SL	0.81	lb ai/a	3	pt/a	2-4"W	A	53 c	94 ab	96 abc	95 ab
6	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A				
6	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
6	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	A	58 b	92 ab	96 abc	95 a
7	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2-4"W	A				
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-4"RG	B				
7	N-PAK AMS	100	SL	5	% v/v	5	% v/v	3-4"RG	B				
8	NONTREATED									0 d	0 c	0 d	0 c
LSD (P=.05)										4.5	3.2	3.9	5.6
Replicate F										0.922	2.019	3.563	0.369
Replicate Prob(F)										0.4207	0.1696	0.0561	0.6978
Treatment F										523.280	976.935	700.555	319.722
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001

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

Trial Comments

1. Protocol: FMC.
2. Ratings: CI/WC at 7 and 21 DA-A; CI/WC at 7 and 21 DA-B.
3. Application B is at 3-4"RG following the A application but not sooner than 21 DA-A (rate A before spraying B).