

# Purdue University

Fall applied no-till soybean herbicide evaluation at SEPAC.

Trial ID: 05F-SEP-NTS-10  
Location: SEPAC

Study Dir.: Vince Davis  
Investigator: Dr. William G. Johnson

## GENERAL TRIAL INFORMATION

**Study Director:** Vince Davis **Title:** Research Associate  
**Affiliation:** Purdue University  
**Postal Code:** 47907  
**Investigator:** Dr. William G. Johnson **Title:** Associate Professor  
**Affiliation:** Purdue University  
**Postal Code:** 47907

## TRIAL LOCATION

**City:** Butlerville  
**State/Prov.:** IN  
**Postal Code:** 47223  
**Country:** USA  
**Unit:** feet  
**Directions:** Field S10

## COOPERATOR/LANDOWNER

**Cooperator:** Southeast Purdue Ag Center **Country:** USA  
**Org:** Purdue University **Phone No:** 812-458-6977  
**Address 1:** 4425 E Co Rd 350 N **Fax No:** 812-458-6979  
**Address 2:** PO Box 216  
**City:** Butlerville  
**State/Prov:** IN  
**Postal Code:** 47223

**Conducted Under GLP (Y/N):** N **Conducted Under GEP (Y/N):** N

**Objective:** The objective of this study is to evaluate the efficacy of fall applied herbicides for the control of winter annual and early emerging summer annual weed species prior to no-tillage soybean.

## CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	RANAB	Buttercup, smallflower	Ranunculus abortivus
2.	ERICA	Horsweed	Erigeron canadensis
3.	POAAN	Annual bluegrass	Poa annua
4.	STEME	Chickweed, common	Stellaria media
5.	ALOCA	Carolina foxtail	Alopecurus carolinianus
6.	CERVU	Mouse-ear chickweed	Cerastium vulgatum
7.	PANDI	Fall panicum	Panicum dichotomiflorum

**Crop 1:** GLXMA SOYBEAN **Variety:** Asgrow 3802  
**Planting Date:** 24/Jun/2006 **Planting Method:** JD7000  
**Rate:** 150000 S/A **Depth:** 1.5 IN  
**Row Spacing:** 30 IN **Spacing Within Row:** 30 IN **Seed Bed:** No till  
**Soil Temperature:** 75 F **Soil Moisture:** SLIGHTLY WET

## SITE AND DESIGN

**Plot Width, Unit:** 10 FT **Plot Length, Unit:** 30 FT **Reps:** 4  
**Site Type:** FIELD  
**Tillage Type:** NO-TILL **Study Design:** RANDOMIZED COMPLETE BLOCK

## SOIL DESCRIPTION

**% OM:** 1.3 **Texture:** SILT LOAM  
**pH:** 5.7 **Soil Name:** Clermont  
**CEC:** 5.5 **Fert. Level:** GOOD

## ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit
Phosphorus	29	ppm
Potassium	61	ppm
Calcium	833	ppm
Magnesium	140	ppm

**Closest Weather Station:** ON SITE

**Distance:** 0.5 **Unit:** MI

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## APPLICATION DESCRIPTION

	A
Application Date:	3/Nov/2005
Time of Day:	7:45 am
Application Method:	SPRAY
Application Timing:	Fall
Applic. Placement:	BROFOL
Air Temp., Unit:	53 F
% Relative Humidity:	66
Wind Velocity, Unit:	5.5 MPH
Dew Presence (Y/N):	N
Water Hardness:	Very Hard
Soil Temp., Unit:	48 F
Soil Moisture:	Moist
% Cloud Cover:	30

## CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	GLXMA
Stage Scale:	NA

## WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	RANAB 3" 4lf
Stage Scale:	rosette
Density, Unit:	125 YD2
Weed 2 Code, Stage:	ERICA 1-2"
Stage Scale:	rosette
Density, Unit:	30 YD2
Weed 3 Code, Stage:	POAAN 1-2"
Stage Scale:	tall
Density, Unit:	5-10 YD2
Weed 4 Code, Stage:	STEME 1-2"
Stage Scale:	runners
Density, Unit:	1-2 YD2
Weed 5 Code, Stage:	ALOCA 1-2"
Stage Scale:	tall
Weed 6 Code, Stage:	CERVU
Weed 7 Code, Stage:	PANDI

## APPLICATION EQUIPMENT

	A
Appl. Equipment:	BackPack
Operating Pressure:	27 psi
Nozzle Type:	XR
Nozzle Size:	11002
Nozzle Spacing, Unit:	20 IN
Boom Length, Unit:	10 FT
Boom Height, Unit:	20 IN
Ground Speed, Unit:	3 MPH
Incorporation Equip.:	None
Hours to Incorp.:	0
Incorp. Depth, Unit:	0 IN
Carrier:	H2O
Spray Volume, Unit:	15 GPA
Propellant:	CO2

Trial Comments

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Fall applied no-till soybean herbicide evaluation at SEPAC.

Trial ID: 05F-SEP-NTS-10  
 Location: SEPAC

Study Dir.: Vince Davis  
 Investigator: Dr. William G. Johnson

									RANAB	ALOCA	CERVU	RANAB	ALOCA	CERVU
									EFF	EFF	EFF	EFF	EFF	EFF
									%	%	%	%	%	%
									28/Mar/2006	28/Mar/2006	28/Mar/2006	26/Apr/2006	26/Apr/2006	26/Apr/2006
									3-4"rose	<3"tall	<2"roset	8-10"	6-10"	2-4"tall
									100 YD2	100 YD2	10 YD2	3 YD2	50 YD2	2 YD2
									EC and AW	EC and AW	EC and AW	EC&GN	EC&GN	EC&GN
									145 DA-A	145 DA-A	145 DA-A	174 DA-A	174 DA-A	174 DA-A
Tri	Treatment	Rate	Rate	Product	Product	Grow	Appl	Plot	1	2	3	4	5	6
No.	Name		Unit	Rate	Rate	Unit	Code							
1	Non-Treated check							101	0	0	0	0	0	0
								405	0	0	0	0	0	0
								606	0	0	0	0	0	0
								1003	0	0	0	0	0	0
								Mean =	0	0	0	0	0	0
2	Autumn	0.00187	LB A/A	0.3	OZ/A	FALLBD	A	102	80	50	70	95	10	100
	COC	1	% V/V	1	% V/V	FALLBD	A	505	100	10	100	100	5	50
	UAN 28%	1.67	% V/V	1	QT/A	FALLBD	A	707	100	70	100	100	80	95
								901	100	90	100	100	90	100
								Mean =	95	55	93	99	46	86
3	Autumn	0.00375	LB A/A	0.6	OZ/A	FALLBD	A	103	100	70	90	95	40	70
	COC	1	% V/V	1	% V/V	FALLBD	A	506	100	10	100	100	15	100
	UAN 28%	1.67	% V/V	1	QT/A	FALLBD	A	604	100	80	100	100	50	100
								1006	100	85	100	95	60	100
								Mean =	100	61	98	98	41	93
4	Autumn	0.00187	LB A/A	0.3	OZ/A	FALLBD	A	104	95	95	95	96	98	100
	Sencor 75DF	0.47	LB A/A	10	OZ/A	FALLBD	A	408	100	100	100	100	100	100
	COC	1	% V/V	1	% V/V	FALLBD	A	607	100	100	100	100	100	100
	UAN 28%	1.67	% V/V	1	QT/A	FALLBD	A	904	100	100	100	100	100	100
								Mean =	99	99	99	99	100	100
5	Autumn	0.00187	LB A/A	0.3	OZ/A	FALLBD	A	105	98	50	40	90	30	30
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	305	100	75	100	100	50	100
	COC	1	% V/V	1	% V/V	FALLBD	A	701	100	96	100	100	95	100
	UAN 28%	1.67	% V/V	1	QT/A	FALLBD	A	805	100	10	95	100	10	100
								Mean =	100	58	84	98	46	83
6	Autumn	0.00187	LB A/A	0.3	OZ/A	FALLBD	A	106	100	100	99	95	98	100
	Roundup WeatherMAX	0.56	LB AE/A	1	PT/A	FALLBD	A	508	100	100	100	100	98	100
	AMS	2.5	LB A/A	2.5	LB/A	FALLBD	A	704	100	100	100	100	100	100
								906	100	100	100	99	99	100
								Mean =	100	100	100	99	99	100
7	Roundup WeatherMAX	0.56	LB AE/A	1	PT/A	FALLBD	A	107	100	100	99	99	99	100
	2,4-D Ester	8	OZ A/A	1	PT/A	FALLBD	A	406	100	100	100	100	100	100
	AMS	2.5	LB A/A	2.5	LB/A	FALLBD	A	702	100	100	100	100	100	100
								1007	100	100	100	99	99	100
								Mean =	100	100	100	100	100	100
8	Autumn	0.00187	LB A/A	0.3	OZ/A	FALLBD	A	108	99	98	95	75	85	95
	Authority	0.117	LB A/A	2.5	OZ/A	FALLBD	A	402	97	80	100	80	80	100
	COC	1	% V/V	1	% V/V	FALLBD	A	602	100	70	100	100	80	100
	UAN 28%	1.67	% V/V	1	QT/A	FALLBD	A	908	95	95	100	80	90	100
								Mean =	98	86	99	84	84	99
9	Canopy XL			4	OZ/A	FALLBD	A	201	100	99	100	100	100	100
	Classic	0.0234	LB A/A	1.5	OZ/A	FALLBD	A	403	100	95	100	100	99	100
	Authority	0.117	LB A/A	2.5	OZ/A	FALLBD	A	803	100	100	100	100	100	100
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	902	100	100	100	100	100	100
	COC	1	% V/V	1	% V/V	FALLBD	A							
	UAN 28%	1.67	% V/V	1	QT/A	FALLBD	A							
								Mean =	100	99	100	100	100	100

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Weed Code									RANAB	ALOCA	CERVU	RANAB	ALOCA	CERVU
Crop Code														
Rating Data Type									EFF	EFF	EFF	EFF	EFF	EFF
Rating Unit									%	%	%	%	%	%
Rating Date									28/Mar/2006	28/Mar/2006	28/Mar/2006	26/Apr/2006	26/Apr/2006	26/Apr/2006
Crop Stage														
Crop Stage Scale														
Weed Stage									3-4"rose	<3"tall	<2"roset	8-10"	6-10"	2-4"tall
Weed Density, Unit									100 YD2	100 YD2	10 YD2	3 YD2	50 YD2	2 YD2
Assessed By									EC and AW	EC and AW	EC and AW	EC&GN	EC&GN	EC&GN
Trt-Eval Interval									145 DA-A	145 DA-A	145 DA-A	174 DA-A	174 DA-A	174 DA-A
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	1	2	3	4	5	6
10	Canopy EX			1.75	OZ/A	FALLBD	A	202	100	95	100	100	99	100
	Classic	0.4	OZ A/A	1.6	OZ/A	FALLBD	A	503	100	99	100	100	97	100
	Express	0.12	OZ A/A	0.16	OZ/A	FALLBD	A	601	100	100	100	98	100	100
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	907	100	99	100	100	99	100
	COC	1	% V/V	1	% V/V	FALLBD	A							
	UAN 28%	1.67	% V/V	1	QT/A	FALLBD	A							
								Mean =	100	98	100	100	99	100
11	Spartan 4F	0.125	LB A/A	4	FL OZ/A	FALLBD	A	203	100	97	100	100	98	100
	Classic	0.0156	LB A/A	1	OZ/A	FALLBD	A	501	100	100	100	100	100	100
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	708	100	100	100	100	100	100
	COC	1.67	% V/V	1	QT/A	FALLBD	A	1002	100	99	100	100	99	100
								Mean =	100	99	100	100	99	100
12	Spartan 4F	0.125	LB A/A	4	FL OZ/A	FALLBD	A	204	100	98	100	100	98	95
	Classic	0.0078	LB A/A	0.5	OZ/A	FALLBD	A	407	100	97	100	100	100	100
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	705	100	80	100	100	85	100
	COC	1.67	% V/V	1	QT/A	FALLBD	A	807	100	99	100	100	100	100
								Mean =	100	94	100	100	96	99
13	Spartan 4F	0.125	LB A/A	4	FL OZ/A	FALLBD	A	205	100	98	100	100	90	100
	Sencor 75DF	0.187	LB A/A	4	OZ/A	FALLBD	A	507	100	98	100	98	98	100
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	608	100	99	100	100	96	100
	COC	1.67	% V/V	1	QT/A	FALLBD	A	1001	100	100	100	100	100	100
								Mean =	100	99	100	100	96	100
14	Spartan 4F	0.125	LB A/A	4	FL OZ/A	FALLBD	A	206	100	98	100	100	75	100
	Sencor 75DF	0.094	LB A/A	2	OZ/A	FALLBD	A	308	100	98	100	100	90	100
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	804	100	100	100	100	99	100
	COC	1.67	% V/V	1	QT/A	FALLBD	A	1008	100	100	100	100	99	100
								Mean =	100	99	100	100	91	100
15	Aim EW	0.0074	LB A/A	0.5	FL OZ/A	FALLBD	A	207	100	60	100	100	30	100
	Express	0.075	OZ A/A	0.1	OZ/A	FALLBD	A	504	100	70	100	100	20	100
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	706	100	20	100	100	25	100
	COC	1.67	% V/V	1	QT/A	FALLBD	A	903	100	97	100	100	95	95
								Mean =	100	62	100	100	43	99
16	Aim EW	0.0074	LB A/A	0.5	FL OZ/A	FALLBD	A	208	100	30	100	95	20	100
	2,4-D Ester	0.25	LB A/A	0.5	PT/A	FALLBD	A	404	100	20	100	100	5	100
	COC	1.67	% V/V	1	QT/A	FALLBD	A	605	100	10	80	100	0	0
								806	100	60	99	100	40	100
								Mean =	100	30	95	99	16	75
17	Aim EW	0.0111	LB A/A	0.75	FL OZ/A	FALLBD	A	301	100	60	50	100	10	50
	2,4-D Ester	0.375	LB A/A	0.75	PT/A	FALLBD	A	306	100	0	75	100	10	90
	COC	1.67	% V/V	1	QT/A	FALLBD	A	802	100	15	80	100	60	70
								1004	100	90	90	100	10	90
								Mean =	100	41	74	100	23	75
18	Aim EW	0.0148	LB A/A	1	FL OZ/A	FALLBD	A	302	100	50	90	100	10	95
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	307	100	40	90	100	20	95
	COC	1.67	% V/V	1	QT/A	FALLBD	A	801	100	95	99	100	70	70
								808	100	90	75	97	60	50
								Mean =	100	69	89	99	40	78

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									RANAB	ALOCA	CERVU	RANAB	ALOCA	CERVU
									EFF	EFF	EFF	EFF	EFF	EFF
									%	%	%	%	%	%
									28/Mar/2006	28/Mar/2006	28/Mar/2006	26/Apr/2006	26/Apr/2006	26/Apr/2006
									3-4"rose	<3"tall	<2"roset	8-10"	6-10"	2-4"tall
									100 YD2	100 YD2	10 YD2	3 YD2	50 YD2	2 YD2
									EC and AW	EC and AW	EC and AW	EC&GN	EC&GN	EC&GN
									145 DA-A	145 DA-A	145 DA-A	174 DA-A	174 DA-A	174 DA-A
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	1	2	3	4	5	6
19	Aim EW	0.0074	LB A/A	0.5	FL OZ/A	FALLBD	A	303	100	99	100	100	99	100
	2,4-D Ester	0.25	LB A/A	0.5	PT/A	FALLBD	A	401	100	100	100	100	98	100
	Roundup Original	0.375	LB AE/A	1	PT/A	FALLBD	A	703	100	100	100	100	100	100
	COC	1.67	% V/V	1	QT/A	FALLBD	A	905	100	100	100	100	98	100
	AMS	2.5	LB A/A	2.5	LB/A	FALLBD	A							
								Mean =	100	100	100	100	99	100
20	Roundup WeatherMAX	0.56	LB AE/A	1	PT/A	FALLBD	A	304	100	99	100	100	95	100
	AMS	2.5	LB A/A	2.5	LB/A	FALLBD	A	502	100	100	100	100	100	100
								603	100	100	100	100	99	100
								1005	100	100	100	100	99	100
								Mean =	100	100	100	100	98	100

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Weed Code									ERICA	PANDI	ERICA	GLXMA
Crop Code									EFF	EFF	EFF	PHYGEN
Rating Data Type									%	%	%	%
Rating Unit									26/Apr/2006	6/Jun/2006	6/Jun/2006	6/Jun/2006
Rating Date												VE
Crop Stage												3"
Crop Stage Scale												
Weed Stage									1"ros	4-6"	1-6"	
Weed Density, Unit									100 YD2	40 YD2	50 YD2	
Assessed By									EC&GN	AW + GK	AW + AK	AW + AK
Trt-Eval Interval									174 DA-A	215 DA-A	215 DA-A	215 DA-A
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	7	8	9	10
1	Non-Treated check							101	0	0	0	0
								405	0	45	95	0
								606	0	90	88	0
								1003	0	0	0	0
								Mean =	0	34	46	0
2	Autumn	0.00187	LB A/A	0.3	OZ/A	FALLBD	A	102	70	80	5	0
	COC	1	% V/V	1	% V/V	FALLBD	A	505	80	85	90	0
	UAN 28%	1.67	% V/V	1	QT/A	FALLBD	A	707	25	60	90	0
								901	45	30	85	0
								Mean =	55	64	68	0
3	Autumn	0.00375	LB A/A	0.6	OZ/A	FALLBD	A	103	98	70	20	0
	COC	1	% V/V	1	% V/V	FALLBD	A	506	90	75	93	0
	UAN 28%	1.67	% V/V	1	QT/A	FALLBD	A	604	0	82	70	0
								1006	30	85	20	0
								Mean =	55	78	51	0
4	Autumn	0.00187	LB A/A	0.3	OZ/A	FALLBD	A	104	0	70	50	0
	Sencor 75DF	0.47	LB A/A	10	OZ/A	FALLBD	A	408	100	30	95	0
	COC	1	% V/V	1	% V/V	FALLBD	A	607	50	0	90	0
	UAN 28%	1.67	% V/V	1	QT/A	FALLBD	A	904	25	0	48	0
								Mean =	44	25	71	0
5	Autumn	0.00187	LB A/A	0.3	OZ/A	FALLBD	A	105	90	85	60	0
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	305	90	25	85	0
	COC	1	% V/V	1	% V/V	FALLBD	A	701	0	90	50	0
	UAN 28%	1.67	% V/V	1	QT/A	FALLBD	A	805	30	90	45	0
								Mean =	53	73	60	0
6	Autumn	0.00187	LB A/A	0.3	OZ/A	FALLBD	A	106	0	0	0	0
	Roundup WeatherMAX	0.56	LB AE/A	1	PT/A	FALLBD	A	508	60	10	93	0
	AMS	2.5	LB A/A	2.5	LB/A	FALLBD	A	704	100	95	35	0
								906	100	10	95	0
								Mean =	65	29	56	0
7	Roundup WeatherMAX	0.56	LB AE/A	1	PT/A	FALLBD	A	107	40	0	50	0
	2,4-D Ester	8	OZ A/A	1	PT/A	FALLBD	A	406	98	30	90	0
	AMS	2.5	LB A/A	2.5	LB/A	FALLBD	A	702	0	95	0	0
								1007	90	65	95	0
								Mean =	57	48	59	0
8	Autumn	0.00187	LB A/A	0.3	OZ/A	FALLBD	A	108	90	60	35	0
	Authority	0.117	LB A/A	2.5	OZ/A	FALLBD	A	402	90	25	0	0
	COC	1	% V/V	1	% V/V	FALLBD	A	602	25	90	40	0
	UAN 28%	1.67	% V/V	1	QT/A	FALLBD	A	908	100	65	95	0
								Mean =	76	60	43	0
9	Canopy XL			4	OZ/A	FALLBD	A	201	100	80	85	0
	Classic	0.0234	LB A/A	1.5	OZ/A	FALLBD	A	403	95	25	75	0
	Authority	0.117	LB A/A	2.5	OZ/A	FALLBD	A	803	100	97	95	0
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	902	100	5	90	0
	COC	1	% V/V	1	% V/V	FALLBD	A					
	UAN 28%	1.67	% V/V	1	QT/A	FALLBD	A					
								Mean =	99	52	86	0

## Purdue University

Weed Code									ERICA	PANDI	ERICA	GLXMA
Crop Code									EFF	EFF	EFF	PHYGEN
Rating Data Type									%	%	%	%
Rating Unit									26/Apr/2006	6/Jun/2006	6/Jun/2006	6/Jun/2006
Rating Date												
Crop Stage												VE
Crop Stage Scale												3"
Weed Stage									1"ros	4-6"	1-6"	
Weed Density, Unit									100 YD2	40 YD2	50 YD2	
Assessed By									EC&GN	AW + GK	AW + AK	AW + AK
Trt-Eval Interval									174 DA-A	215 DA-A	215 DA-A	215 DA-A
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	7	8	9	10
10	Canopy EX			1.75	OZ/A	FALLBD	A	202	100	80	80	0
	Classic	0.4	OZ A/A	1.6	OZ/A	FALLBD	A	503	98	80	90	0
	Express	0.12	OZ A/A	0.16	OZ/A	FALLBD	A	601	100	95	93	0
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	907	100	45	95	0
	COC	1	% V/V	1	% V/V	FALLBD	A					
	UAN 28%	1.67	% V/V	1	QT/A	FALLBD	A					
								Mean =	100	75	90	0
11	Spartan 4F	0.125	LB A/A	4	FL OZ/A	FALLBD	A	203	100	85	60	0
	Classic	0.0156	LB A/A	1	OZ/A	FALLBD	A	501	100	85	85	0
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	708	100	50	95	0
	COC	1.67	% V/V	1	QT/A	FALLBD	A	1002	100	98	80	0
								Mean =	100	80	80	0
12	Spartan 4F	0.125	LB A/A	4	FL OZ/A	FALLBD	A	204	99	70	40	0
	Classic	0.0078	LB A/A	0.5	OZ/A	FALLBD	A	407	98	30	95	0
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	705	100	90	80	0
	COC	1.67	% V/V	1	QT/A	FALLBD	A	807	100	10	90	0
								Mean =	99	50	76	0
13	Spartan 4F	0.125	LB A/A	4	FL OZ/A	FALLBD	A	205	95	80	50	0
	Sencor 75DF	0.187	LB A/A	4	OZ/A	FALLBD	A	507	90	20	95	0
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	608	75	30	90	0
	COC	1.67	% V/V	1	QT/A	FALLBD	A	1001	97	95	30	0
								Mean =	89	56	66	0
14	Spartan 4F	0.125	LB A/A	4	FL OZ/A	FALLBD	A	206	80	50	70	0
	Sencor 75DF	0.094	LB A/A	2	OZ/A	FALLBD	A	308	100	25	90	0
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	804	60	80	10	0
	COC	1.67	% V/V	1	QT/A	FALLBD	A	1008	95	50	95	0
								Mean =	84	51	66	0
15	Aim EW	0.0074	LB A/A	0.5	FL OZ/A	FALLBD	A	207	100	65	80	0
	Express	0.075	OZ A/A	0.1	OZ/A	FALLBD	A	504	10	85	50	0
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	706	0	90	93	0
	COC	1.67	% V/V	1	QT/A	FALLBD	A	903	20	10	95	0
								Mean =	33	63	80	0
16	Aim EW	0.0074	LB A/A	0.5	FL OZ/A	FALLBD	A	208	95	75	85	0
	2,4-D Ester	0.25	LB A/A	0.5	PT/A	FALLBD	A	404	95	0	0	0
	COC	1.67	% V/V	1	QT/A	FALLBD	A	605	90	90	90	0
								806	90	60	40	0
								Mean =	93	56	54	0
17	Aim EW	0.0111	LB A/A	0.75	FL OZ/A	FALLBD	A	301	95	50	25	0
	2,4-D Ester	0.375	LB A/A	0.75	PT/A	FALLBD	A	306	100	35	85	0
	COC	1.67	% V/V	1	QT/A	FALLBD	A	802	20	95	10	0
								1004	0	95	20	0
								Mean =	54	69	35	0
18	Aim EW	0.0148	LB A/A	1	FL OZ/A	FALLBD	A	302	95	60	30	0
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A	307	95	60	83	0
	COC	1.67	% V/V	1	QT/A	FALLBD	A	801	20	98	5	0
								808	90	0	95	0
								Mean =	75	55	53	0

# Purdue University

Weed Code									ERICA	PANDI	ERICA	GLXMA
Crop Code												PHYGEN
Rating Data Type									EFF	EFF	EFF	%
Rating Unit									%	%	%	%
Rating Date									26/Apr/2006	6/Jun/2006	6/Jun/2006	6/Jun/2006
Crop Stage												VE
Crop Stage Scale												3"
Weed Stage									1"ros	4-6"	1-6"	
Weed Density, Unit									100 YD2	40 YD2	50 YD2	
Assessed By									EC&GN	AW + GK	AW + AK	AW + AK
Trt-Eval Interval									174 DA-A	215 DA-A	215 DA-A	215 DA-A
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	7	8	9	10
19	Aim EW	0.0074	LB A/A	0.5	FL OZ/A	FALLBD	A	303	65	30	25	0
	2,4-D Ester	0.25	LB A/A	0.5	PT/A	FALLBD	A	401	0	25	40	0
	Roundup Original	0.375	LB AE/A	1	PT/A	FALLBD	A	703	10	93	15	0
	COC	1.67	% V/V	1	QT/A	FALLBD	A	905	60	98	95	0
	AMS	2.5	LB A/A	2.5	LB/A	FALLBD	A					
								Mean =	34	62	44	0
20	Roundup WeatherMAX	0.56	LB AE/A	1	PT/A	FALLBD	A	304	30	30	30	0
	AMS	2.5	LB A/A	2.5	LB/A	FALLBD	A	502	90	68	40	0
								603	0	80	70	0
								1005	15	90	15	0
								Mean =	34	67	39	0

# Purdue University

Fall applied no-till soybean herbicide evaluation at SEPAC.

Trial ID: 05F-SEP-NTS-10  
Location: SEPAC

Study Dir.: Vince Davis  
Investigator: Dr. William G. Johnson

Weed Code							RANAB	ALOCA	CERU	RANAB	ALOCA	CERU	
Crop Code							EFF	EFF	EFF	EFF	EFF	EFF	
Rating Data Type							%	%	%	%	%	%	
Rating Unit							28/Mar/2006	28/Mar/2006	28/Mar/2006	26/Apr/2006	26/Apr/2006	26/Apr/2006	
Rating Date													
Crop Stage													
Crop Stage Scale													
Weed Stage							3-4"rose	<3"tall	<2"roset	8-10"	6-10"	2-4"tall	
Weed Density, Unit							100 YD2	100 YD2	10 YD2	3 YD2	50 YD2	2 YD2	
Assessed By							EC and AW	EC and AW	EC and AW	EC&GN	EC&GN	EC&GN	
Trt-Eval Interval							145 DA-A	145 DA-A	145 DA-A	174 DA-A	174 DA-A	174 DA-A	
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	1	2	3	4	5	6
1	Non-Treated check							0 c	0 g	0 d	0 c	0 d	0 c
2	Autumn	0.00187	LB A/A	0.3	OZ/A	FALLBD	A	95 b	55 def	93 ab	99 a	46 b	86 ab
	COC	1	% V/V	1	% V/V	FALLBD	A						
	UAN 28%	1.67	% V/V	1	QT/A	FALLBD	A						
3	Autumn	0.00375	LB A/A	0.6	OZ/A	FALLBD	A	100 a	61 cde	98 a	98 a	41 b	93 ab
	COC	1	% V/V	1	% V/V	FALLBD	A						
	UAN 28%	1.67	% V/V	1	QT/A	FALLBD	A						
4	Autumn	0.00187	LB A/A	0.3	OZ/A	FALLBD	A	99 a	99 a	99 a	99 a	100 a	100 a
	Sencor 75DF	0.47	LB A/A	10	OZ/A	FALLBD	A						
	COC	1	% V/V	1	% V/V	FALLBD	A						
	UAN 28%	1.67	% V/V	1	QT/A	FALLBD	A						
5	Autumn	0.00187	LB A/A	0.3	OZ/A	FALLBD	A	100 a	58 de	84 bc	98 a	46 b	83 ab
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A						
	COC	1	% V/V	1	% V/V	FALLBD	A						
	UAN 28%	1.67	% V/V	1	QT/A	FALLBD	A						
6	Autumn	0.00187	LB A/A	0.3	OZ/A	FALLBD	A	100 a	100 a	100 a	99 a	99 a	100 a
	Roundup WeatherMAX	0.56	LB AE/A	1	PT/A	FALLBD	A						
	AMS	2.5	LB A/A	2.5	LB/A	FALLBD	A						
7	Roundup WeatherMAX	0.56	LB AE/A	1	PT/A	FALLBD	A	100 a	100 a	100 a	100 a	100 a	100 a
	2,4-D Ester	8	OZ A/A	1	PT/A	FALLBD	A						
	AMS	2.5	LB A/A	2.5	LB/A	FALLBD	A						
8	Autumn	0.00187	LB A/A	0.3	OZ/A	FALLBD	A	98 ab	86 abc	99 a	84 b	84 a	99 a
	Authority	0.117	LB A/A	2.5	OZ/A	FALLBD	A						
	COC	1	% V/V	1	% V/V	FALLBD	A						
	UAN 28%	1.67	% V/V	1	QT/A	FALLBD	A						
9	Canopy XL			4	OZ/A	FALLBD	A	100 a	99 a	100 a	100 a	100 a	100 a
	Classic	0.0234	LB A/A	1.5	OZ/A	FALLBD	A						
	Authority	0.117	LB A/A	2.5	OZ/A	FALLBD	A						
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A						
	COC	1	% V/V	1	% V/V	FALLBD	A						
	UAN 28%	1.67	% V/V	1	QT/A	FALLBD	A						
10	Canopy EX			1.75	OZ/A	FALLBD	A	100 a	98 a	100 a	100 a	99 a	100 a
	Classic	0.4	OZ A/A	1.6	OZ/A	FALLBD	A						
	Express	0.12	OZ A/A	0.16	OZ/A	FALLBD	A						
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A						
	COC	1	% V/V	1	% V/V	FALLBD	A						
	UAN 28%	1.67	% V/V	1	QT/A	FALLBD	A						
11	Spartan 4F	0.125	LB A/A	4	FL OZ/A	FALLBD	A	100 a	99 a	100 a	100 a	99 a	100 a
	Classic	0.0156	LB A/A	1	OZ/A	FALLBD	A						
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A						
	COC	1.67	% V/V	1	QT/A	FALLBD	A						

## Purdue University

Weed Code							RANAB	ALOCA	CERVU	RANAB	ALOCA	CERVU	
Crop Code							EFF	EFF	EFF	EFF	EFF	EFF	
Rating Data Type							%	%	%	%	%	%	
Rating Unit							28/Mar/2006	28/Mar/2006	28/Mar/2006	26/Apr/2006	26/Apr/2006	26/Apr/2006	
Rating Date													
Crop Stage													
Crop Stage Scale													
Weed Stage							3-4"rose	<3"tall	<2"rosel	8-10"	6-10"	2-4"tall	
Weed Density, Unit							100 YD2	100 YD2	10 YD2	3 YD2	50 YD2	2 YD2	
Assessed By							EC and AW	EC and AW	EC and AW	EC&GN	EC&GN	EC&GN	
Trt-Eval Interval							145 DA-A	145 DA-A	145 DA-A	174 DA-A	174 DA-A	174 DA-A	
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	1	2	3	4	5	6
12	Spartan 4F	0.125	LB A/A	4	FL OZ/A	FALLBD	A	100 a	94 ab	100 a	100 a	96 a	99 a
	Classic	0.0078	LB A/A	0.5	OZ/A	FALLBD	A						
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A						
	COC	1.67	% V/V	1	QT/A	FALLBD	A						
13	Spartan 4F	0.125	LB A/A	4	FL OZ/A	FALLBD	A	100 a	99 a	100 a	100 a	96 a	100 a
	Sencor 75DF	0.187	LB A/A	4	OZ/A	FALLBD	A						
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A						
	COC	1.67	% V/V	1	QT/A	FALLBD	A						
14	Spartan 4F	0.125	LB A/A	4	FL OZ/A	FALLBD	A	100 a	99 a	100 a	100 a	91 a	100 a
	Sencor 75DF	0.094	LB A/A	2	OZ/A	FALLBD	A						
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A						
	COC	1.67	% V/V	1	QT/A	FALLBD	A						
15	Aim EW	0.0074	LB A/A	0.5	FL OZ/A	FALLBD	A	100 a	62 cde	100 a	100 a	43 b	99 a
	Express	0.075	OZ A/A	0.1	OZ/A	FALLBD	A						
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A						
	COC	1.67	% V/V	1	QT/A	FALLBD	A						
16	Aim EW	0.0074	LB A/A	0.5	FL OZ/A	FALLBD	A	100 a	30 f	95 ab	99 a	16 cd	75 b
	2,4-D Ester	0.25	LB A/A	0.5	PT/A	FALLBD	A						
	COC	1.67	% V/V	1	QT/A	FALLBD	A						
17	Aim EW	0.0111	LB A/A	0.75	FL OZ/A	FALLBD	A	100 a	41 ef	74 c	100 a	23 bcd	75 b
	2,4-D Ester	0.375	LB A/A	0.75	PT/A	FALLBD	A						
	COC	1.67	% V/V	1	QT/A	FALLBD	A						
18	Aim EW	0.0148	LB A/A	1	FL OZ/A	FALLBD	A	100 a	69 bcd	89 ab	99 a	40 bc	78 ab
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A						
	COC	1.67	% V/V	1	QT/A	FALLBD	A						
19	Aim EW	0.0074	LB A/A	0.5	FL OZ/A	FALLBD	A	100 a	100 a	100 a	100 a	99 a	100 a
	2,4-D Ester	0.25	LB A/A	0.5	PT/A	FALLBD	A						
	Roundup Original	0.375	LB AE/A	1	PT/A	FALLBD	A						
	COC	1.67	% V/V	1	QT/A	FALLBD	A						
	AMS	2.5	LB A/A	2.5	LB/A	FALLBD	A						
20	Roundup WeatherMAX	0.56	LB AE/A	1	PT/A	FALLBD	A	100 a	100 a	100 a	100 a	98 a	100 a
	AMS	2.5	LB A/A	2.5	LB/A	FALLBD	A						
LSD (P=.05)							3.3	27.4	12.1	4.0	24.9	23.5	
Standard Deviation							2.3	19.3	8.5	2.8	17.6	16.6	
CV							2.47	25.02	9.34	3.04	24.92	18.6	
Grand Mean							94.55	77.34	91.39	93.58	70.69	89.25	
Bartlett's X2							15.588	118.454	55.916	40.388	139.234	37.955	
P(Bartlett's X2)							0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	
Replicate F							1.505	2.318	3.043	3.575	3.592	0.605	
Replicate Prob(F)							0.2230	0.0851	0.0361	0.0193	0.0190	0.6144	
Treatment F							363.226	9.047	28.036	245.652	15.179	7.644	
Treatment Prob(F)							0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	

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

# Purdue University

Weed Code							ERICA	PANDI	ERICA	GLXMA	
Crop Code							EFF	EFF	EFF	PHYGEN	
Rating Data Type							%	%	%	%	
Rating Unit							26/Apr/2006	6/Jun/2006	6/Jun/2006	6/Jun/2006	
Rating Date										VE	
Crop Stage										3"	
Crop Stage Scale											
Weed Stage							1 <sup>ros</sup>	4-6"	1-6"		
Weed Density, Unit							100 YD2	40 YD2	50 YD2		
Assessed By							EC&GN	AW + GK	AW + AK	AW + AK	
Trt-Eval Interval							174 DA-A	215 DA-A	215 DA-A	215 DA-A	
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	7	8	9	10
1	Non-Treated check							0 g	34 bcd	46 abc	0 a
2	Autumn COC UAN 28%	0.00187 1 1.67	LB A/A % V/V % V/V	0.3 1 1	OZ/A % V/V QT/A	FALLBD FALLBD FALLBD	A A A	55 c-f	64 a-d	68 abc	0 a
3	Autumn COC UAN 28%	0.00375 1 1.67	LB A/A % V/V % V/V	0.6 1 1	OZ/A % V/V QT/A	FALLBD FALLBD FALLBD	A A A	55 c-f	78 a	51 abc	0 a
4	Autumn Sencor 75DF COC UAN 28%	0.00187 0.47 1 1.67	LB A/A LB A/A % V/V % V/V	0.3 10 1 1	OZ/A OZ/A % V/V QT/A	FALLBD FALLBD FALLBD FALLBD	A A A A	44 def	25 d	71 abc	0 a
5	Autumn 2,4-D Ester COC UAN 28%	0.00187 0.5 1 1.67	LB A/A LB A/A % V/V % V/V	0.3 1 1 1	OZ/A PT/A % V/V QT/A	FALLBD FALLBD FALLBD FALLBD	A A A A	53 c-f	73 ab	60 abc	0 a
6	Autumn Roundup WeatherMAX AMS	0.00187 0.56 2.5	LB A/A LB AE/A LB A/A	0.3 1 2.5	OZ/A PT/A LB/A	FALLBD FALLBD FALLBD	A A A	65 a-f	29 cd	56 abc	0 a
7	Roundup WeatherMAX 2,4-D Ester AMS	0.56 8 2.5	LB AE/A OZ A/A LB A/A	1 1 2.5	PT/A PT/A LB/A	FALLBD FALLBD FALLBD	A A A	57 b-f	48 a-d	59 abc	0 a
8	Autumn Authority COC UAN 28%	0.00187 0.117 1 1.67	LB A/A LB A/A % V/V % V/V	0.3 2.5 1 1	OZ/A OZ/A % V/V QT/A	FALLBD FALLBD FALLBD FALLBD	A A A A	76 a-d	60 a-d	43 bc	0 a
9	Canopy XL Classic Authority 2,4-D Ester COC UAN 28%	0.0234 0.117 0.5 1 1.67	LB A/A LB A/A LB A/A % V/V % V/V	4 1.5 2.5 1 1 1	OZ/A OZ/A OZ/A PT/A % V/V QT/A	FALLBD FALLBD FALLBD FALLBD FALLBD FALLBD	A A A A A A	99 ab	52 a-d	86 ab	0 a
10	Canopy EX Classic Express 2,4-D Ester COC UAN 28%	0.4 0.12 0.5 1 1.67	OZ A/A OZ A/A LB A/A % V/V % V/V	1.75 1.6 0.16 1 1 1	OZ/A OZ/A OZ/A PT/A % V/V QT/A	FALLBD FALLBD FALLBD FALLBD FALLBD FALLBD	A A A A A A	100 a	75 ab	90 a	0 a
11	Spartan 4F Classic 2,4-D Ester COC	0.125 0.0156 0.5 1.67	LB A/A LB A/A LB A/A % V/V	4 1 1 1	FL OZ/A OZ/A PT/A QT/A	FALLBD FALLBD FALLBD FALLBD	A A A A	100 a	80 a	80 abc	0 a
12	Spartan 4F Classic 2,4-D Ester COC	0.125 0.0078 0.5 1.67	LB A/A LB A/A LB A/A % V/V	4 0.5 1 1	FL OZ/A OZ/A PT/A QT/A	FALLBD FALLBD FALLBD FALLBD	A A A A	99 a	50 a-d	76 abc	0 a

## Purdue University

Weed Code							ERICA	PANDI	ERICA	GLXMA	
Crop Code							EFF	EFF	EFF	PHYGEN	
Rating Data Type							%	%	%	%	
Rating Unit							26/Apr/2006	6/Jun/2006	6/Jun/2006	6/Jun/2006	
Rating Date										VE	
Crop Stage										3"	
Crop Stage Scale							1*ros	4-6"	1-6"		
Weed Stage							100 YD2	40 YD2	50 YD2		
Weed Density, Unit							EC&GN	AW + GK	AW + AK	AW + AK	
Assessed By							174 DA-A	215 DA-A	215 DA-A	215 DA-A	
Trt-Eval Interval											
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	7	8	9	10
13	Spartan 4F	0.125	LB A/A	4	FL OZ/A	FALLBD	A	89 abc	56 a-d	66 abc	0 a
	Sencor 75DF	0.187	LB A/A	4	OZ/A	FALLBD	A				
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A				
	COC	1.67	% V/V	1	QT/A	FALLBD	A				
14	Spartan 4F	0.125	LB A/A	4	FL OZ/A	FALLBD	A	84 a-d	51 a-d	66 abc	0 a
	Sencor 75DF	0.094	LB A/A	2	OZ/A	FALLBD	A				
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A				
	COC	1.67	% V/V	1	QT/A	FALLBD	A				
15	Aim EW	0.0074	LB A/A	0.5	FL OZ/A	FALLBD	A	33 fg	63 a-d	80 abc	0 a
	Express	0.075	OZ A/A	0.1	OZ/A	FALLBD	A				
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A				
	COC	1.67	% V/V	1	QT/A	FALLBD	A				
16	Aim EW	0.0074	LB A/A	0.5	FL OZ/A	FALLBD	A	93 abc	56 a-d	54 abc	0 a
	2,4-D Ester	0.25	LB A/A	0.5	PT/A	FALLBD	A				
	COC	1.67	% V/V	1	QT/A	FALLBD	A				
17	Aim EW	0.0111	LB A/A	0.75	FL OZ/A	FALLBD	A	54 c-f	69 abc	35 c	0 a
	2,4-D Ester	0.375	LB A/A	0.75	PT/A	FALLBD	A				
	COC	1.67	% V/V	1	QT/A	FALLBD	A				
18	Aim EW	0.0148	LB A/A	1	FL OZ/A	FALLBD	A	75 a-e	55 a-d	53 abc	0 a
	2,4-D Ester	0.5	LB A/A	1	PT/A	FALLBD	A				
	COC	1.67	% V/V	1	QT/A	FALLBD	A				
19	Aim EW	0.0074	LB A/A	0.5	FL OZ/A	FALLBD	A	34 efg	62 a-d	44 bc	0 a
	2,4-D Ester	0.25	LB A/A	0.5	PT/A	FALLBD	A				
	Roundup Original	0.375	LB AE/A	1	PT/A	FALLBD	A				
	COC	1.67	% V/V	1	QT/A	FALLBD	A				
	AMS	2.5	LB A/A	2.5	LB/A	FALLBD	A				
20	Roundup WeatherMAX	0.56	LB AE/A	1	PT/A	FALLBD	A	34 efg	67 a-d	39 c	0 a
	AMS	2.5	LB A/A	2.5	LB/A	FALLBD	A				
LSD (P=.05)							42.0	43.2	45.7	0.0	
Standard Deviation							29.7	30.6	32.3	0.0	
CV							45.85	53.49	52.94	0.0	
Grand Mean							64.79	57.18	61.01	0.0	
Bartlett's X2							66.63	11.795	21.164	0.0	
P(Bartlett's X2)							0.001*	0.894	0.328	.	
Replicate F							5.264	5.327	3.008	0.000	
Replicate Prob(F)							0.0028	0.0026	0.0376	1.0000	
Treatment F							3.553	0.996	0.983	0.000	
Treatment Prob(F)							0.0001	0.4794	0.4929	1.0000	

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