

# Purdue University

Fall and/or Spring Combination Treatments for Winter annual  
weed control prior to soybean

Trial ID: 04F-PPAC-SOY  
Location: Wanatah, IN

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:** Wanatah  
**State/Prov.:** IN  
**Postal Code:** 46390  
**Country:** USA

**Unit:** ft

**Directions:** West of main building and pine trees.

## COOPERATOR/LANDOWNER

**Cooperator:** Pinney Purdue Agricultural Center **Country:** USA  
**Address 1:** 11402 South Co. Line Rd **Phone No:** 219-733-2379  
**City:** Wanatah **Fax No:** call first  
**State/Prov:** IN  
**Postal Code:** 46390

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

**Objective:** The objective was to evaluate the efficacy of various products for winter annual weed control in high organic matter muck soils.

## CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	STEME	Stellaria media	Common chickweed
2.	LAMPU	Lamium purpureum	Deadnettle, purple
3.	LAMAM	Lamium amplexicaule	Henbit
4.	LAMSS	Lamium sp.	Deadnettle

**Crop 1:** ZEAMX CORN, FIELD  
**Row Spacing:** 30 IN

**Variety:** Harvest Residue

**Crop 2:** GLXMA SOYBEAN  
**Planting Date:** 16/May/2005  
**Row Spacing:** 7 IN

**Planting Method:** Drilled

## SITE AND DESIGN

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

	Previous Crops	Previous Pesticides	Year
1.	field corn		2004

## SOIL DESCRIPTION

**% OM:** 23.3 **Texture:** MUCK  
**pH:** 5.3  
**CEC:** 25.6 **Fert. Level:** P is 81 ppm and K is 363 ppm

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## APPLICATION DESCRIPTION

	A	B	C	D
Application Date:	18/Nov/2004	28/Mar/2005	11/Apr/2005	20/Apr/2005
Time of Day:	1130-1230	1145-1215	1300-1315	930-931
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	FALBD	EPP45	EPP30	15EPP
Applic. Placement:	BROFOL	BROFOL	BROFOL	BROFOL
Air Temp., Unit:	61 F	51 F	80 F	72 F
% Relative Humidity:	100	70	33	0.
Wind Velocity, Unit:	1 MPH	8 MPH	1 MPH	8.5 MPH
Soil Temp., Unit:	52 F	38 F	64 F	60 f
Soil Moisture:	WET	ADEQUATE	dry	dry
% Cloud Cover:	100	50	80	30

## CROP STAGE AT EACH APPLICATION

	A	B	C	D
Crop 1 Code, Stage:	ZEAMX	ZEAMX	ZEAMX	ZEAMX
Stage Scale:	Residue	Residue	Residue	Residue
Height, Unit:	90 %	60 %	60 %	60 %
Crop 2 Code, Stage:	GLXMA	GLXMA	GLXMA	GLXMA
Stage Scale:	Residue	Residue	Residue	Residue

## WEED STAGE AT EACH APPLICATION

	A	B	C	D
Weed 1 Code, Stage:	STEME	STEME >100leaf	STEME >100leaf	STEME
Stage Scale:	1-10"	6-10"rost	8-13",flo	6" flower
Density, Unit:	30 YD2	45 YD2	45 YD2	45 YD2
Weed 2 Code, Stage:	LAMPU	LAMPU 25 leaf	LAMPU 30 leaf	LAMPU
Stage Scale:		3"	4-6"f1	5" flower
Density, Unit:	YD2	30 YD2	30 YD2	30 YD2
Weed 3 Code, Stage:	LAMAM	LAMAM 8 leaf	LAMAM 8-12	LAMAM
Stage Scale:		3"	4-6"flow	
Density, Unit:	YD2	10 YD2	10 YD2	
Weed 4 Code, Stage:	LAMSS	LAMSS	LAMSS	LAMSS
Stage Scale:	2-4"			
Density, Unit:	20+ YD2			

## APPLICATION EQUIPMENT

	A	B	C	D
Appl. Equipment:	CO2 Backp	CO2 Backp	CO2 Backp	CO2 Backp
Operating Pressure:	26-27 psi	26-27 psi	26-27 psi	26-27 psi
Nozzle Type:	XR__VS	XR__VS	XR__VS	XR__VS
Nozzle Size:	8002	8002	8002	8002
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN	20 IN
Boom Length, Unit:	10 FT	10 FT	10 FT	10 FT
Ground Speed, Unit:	3 MPH	3 MPH	3 MPH	3 MPH
Carrier:	water	water	water	water
Spray Volume, Unit:	15 gpa	15 gpa	15 gpa	15 gpa
Propellant:	CO2			

Trial Comments

Apr-14-04 Note:

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Location: Wanatah, IN

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

Weed Code								STEME	LAMPU	STEME	LAMPU	
Rating Date								28/Mar/2005	28/Mar/2005	2/May/2005	2/May/2005	
Crop Stage Scale										seed set	seed set	
Weed Stage										12-24"	6-10"	
Weed Density, Unit								50 YD2	20 YD2	15 YD2	15 YD2	
Trt-Eval Interval								130 DA-A	130 DA-A	165 DA-A	165 DA-A	
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	1	2	3	4
1	Untreated Check							101	0	0	0	0
								412	0	0	0	0
								604	0	0	0	0
								705	0	0	0	0
								Mean =	0	0	0	0
2	V-10142	0.2	lb ai/a	7.76	oz/a	FALBD	A	102	70	25	50	50
	Crop Oil Conc	1	pt/a	1	pt/a	FALBD	A	310	50	99	30	100
								609	15	99	25	100
								814	25	99	40	100
								Mean =	40	81	36	88
3	Valor	0.064	lb ai/a	2	oz/a	FALBD	A	103	98	95	98	98
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A	301	95	50	65	80
	Express	0.0056	lb ai/a	0.12	oz/a	FALBD	A	512	95	99	92	90
	Crop Oil Conc	1	pt/a	1	pt/a	FALBD	A	811	90	99	80	100
								Mean =	95	86	84	92
4	Valor	0.064	lb ai/a	2	oz/a	FALBD	A	104	95	100	90	100
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A	314	99	99	95	100
	V-10142	0.2	lb ai/a	7.76	oz/a	FALBD	A	608	85	99	80	100
	Crop Oil Conc	1	pt/a	1	pt/a	FALBD	A	804	95	99	85	100
								Mean =	94	99	88	100
5	Valor	0.064	lb ai/a	2	oz/a	FALBD	A	105	99	99	98	100
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A	313	95	99	95	100
	Crop Oil Conc	1	pt/a	1	pt/a	FALBD	A	503	90	99	80	100
								802	99	99	95	100
								Mean =	96	99	92	100
6	Valor	0.064	lb ai/a	2	oz/a	FALBD	A	106	99	99	95	100
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A	405	95	99	92	100
	Sencor 75DF	0.188	lb ai/a	4	oz/a	FALBD	A	510	85	99	75	100
	Crop Oil Conc	1	pt/a	1	pt/a	FALBD	A	803	93	99	90	100
								Mean =	93	99	88	100
7	Valor	0.064	lb ai/a	2	oz/a	FALBD	A	107	90	99	75	100
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A	308	90	99	83	100
	Sencor 75DF	0.094	lb ai/a	2	oz/a	FALBD	A	508	95	99	92	100
	Crop Oil Conc	1	pt/a	1	pt/a	FALBD	A	702	99	85	75	90
								Mean =	94	96	81	98
8	Valor	0.064	lb ai/a	2	oz/a	FALBD	A	108	97	99	90	100
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A	401	40	30	45	92
	Harmony GT	0.0094	lb ai/a	0.2	oz/a	FALBD	A	504	95	95	85	85
	Crop Oil Conc	1	pt/a	1	pt/a	FALBD	A	706	75	99	80	100
								Mean =	77	81	75	94
9	Valor	0.064	lb ai/a	2	oz/a	FALBD	A	109	98	99	98	100
	Scepter	0.061	lb ae/a	1.4	oz/a	FALBD	A	407	95	99	90	100
	Roundup (ae)	0.375	lb ae/a	1	pt/a	FALBD	A	610	95	95	95	95
	Ammonium Sulfate	2.55	lb/a	17	lb/100 gal	FALBD	A	810	93	99	90	100
	NIS	0.25	% v/v	0.25	% v/v	FALBD	A					
								Mean =	95	98	93	99

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Weed Code								STEME	LAMPU	STEME	LAMPU	
Rating Date								28/Mar/2005	28/Mar/2005	2/May/2005	2/May/2005	
Crop Stage Scale										seed set	seed set	
Weed Stage										12-24"	6-10"	
Weed Density, Unit								50 YD2	20 YD2	15 YD2	15 YD2	
Trt-Eval Interval								130 DA-A	130 DA-A	165 DA-A	165 DA-A	
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	1	2	3	4
10	Valor	0.064	lb ai/a	2	oz/a	FALBD	A	110	97	99	70	100
	Roundup (ae)	0.375	lb ae/a	1	pt/a	FALBD	A	410	99	99	97	100
	Ammonium Sulfate	2.55	lb/a	17	lb/100 gal	FALBD	A	602	96	99	80	85
	NIS	0.25	% v/v	0.25	% v/v	FALBD	A	808	99	99	92	100
	Mean =								98	99	85	96
11	Scepter	0.123	lb ae/a	2.8	oz/a	FALBD	A	111	99	99	100	100
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A	411	99	99	95	100
	Roundup Weathermax	0.77	lb ae/a	22	oz/a	FALBD	A	603	97	99	99	90
	Ammonium Sulfate	2.55	lb/a	17	lb/100 gal	FALBD	A	805	99	99	100	100
	NIS	0.25	% v/v	0.25	% v/v	FALBD	A					
	Mean =								99	99	99	98
12	Scepter	0.123	lb ae/a	2.8	oz/a	FALBD	A	112	99	99	98	100
	Range Star	0.484	lb ae/a	16	oz/a	FALBD	A	402	99	99	95	95
	Roundup Weathermax	0.77	lb ae/a	22	oz/a	FALBD	A	505	99	99	99	100
	Ammonium Sulfate	2.55	lb/a	17	lb/100 gal	FALBD	A	708	95	99	98	100
	NIS	0.25	% v/v	0.25	% v/v	FALBD	A					
	Mean =								98	99	98	99
13	Nontreated check							113	0	0	0	0
								307	0	0	0	0
								614	0	0	0	0
								709	0	0	0	0
	Mean =								0	0	0	0
14	Scepter	0.092	lb ae/a	2.1	oz/a	45 EPP	B	114	0	0	100	100
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	45 EPP	B	312	0	0	100	100
	Roundup Weathermax	0.77	lb ae/a	22	oz/a	45 EPP	B	613	0	0	95	80
	Ammonium Sulfate	2.55	lb/a	17	lb/100 gal	45 EPP	B	806	0	0	100	100
	NIS	0.25	% v/v	0.25	% v/v	45 EPP	B					
	Mean =								0	0	99	95
15	Scepter	0.092	lb ae/a	2.1	oz/a	30 EPP	C	201	0	0	50	50
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	30 EPP	C	409	0	0	50	50
	Roundup Weathermax	0.77	lb ae/a	22	oz/a	30 EPP	C	612	0	0	50	50
	Ammonium Sulfate	2.55	lb/a	17	lb/100 gal	30 EPP	C	704	0	0	65	40
	NIS	0.25	% v/v	0.25	% v/v	30 EPP	C					
	Mean =								0	0	54	48
16	Scepter	0.092	lb ae/a	2.1	oz/a	15 EPP	D	202	0	0	20	20
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	15 EPP	D	406	0	0	25	50*
	Roundup Weathermax	0.77	lb ae/a	22	oz/a	15 EPP	D	509	0	0	20	100
	Ammonium Sulfate	2.55	lb/a	17	lb/100 gal	15 EPP	D	713	0	0	20	25
	NIS	0.25	% v/v	0.25	% v/v	15 EPP	D					
	Mean =								0	0	21	49
17	FirstRate	0.025	lb/a	0.4	oz/a	FALBD	A	203	88	0	78	50
	GF-1279 (IPA-salt glyph)	0.375	lb ae/a	12	oz/a	FALBD	A	302	85	75	80	92
	2,4-D ESTER	0.5	lb ae/a	16	oz/a	FALBD	A	507	95	99	95	100
	Ammonium Sulfate	2.55	lb/a	17	lb/100 gal	FALBD	A	710	65	99	75	100
	NIS	1	pt/100 gal	1	pt/100 gal	FALBD	A					
	Mean =								83	68	82	86
18	Python	0.0625	lb/a	1	oz/a	FALBD	A	204	88	99	85	100
	GF-1279 (IPA-salt glyph)	0.375	lb ae/a	12	oz/a	FALBD	A	311	95	80	90	90
	2,4-D ESTER	0.5	lb ae/a	16	oz/a	FALBD	A	601	88	90	85	80
	Ammonium Sulfate	2.55	lb/a	17	lb/100 gal	FALBD	A	703	75	15	85	50
	Mean =								87	71	86	80

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Weed Code									STEME	LAMPU	STEME	LAMPU
Rating Date									28/Mar/2005	28/Mar/2005	2/May/2005	2/May/2005
Crop Stage Scale											seed set	seed set
Weed Stage											12-24"	6-10"
Weed Density, Unit									50 YD2	20 YD2	15 YD2	15 YD2
Trt-Eval Interval									130 DA-A	130 DA-A	165 DA-A	165 DA-A
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	1	2	3	4
19	Classic	0.0313	lb ai/a	2	oz/a	FALBD	A	205	99	99	98	100
	Express	0.0094	lb ai/a	0.2	oz/a	FALBD	A	303	85	99	70	100
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A	506	85	75	80	85
	Crop Oil Conc	1	% v/v	1	% v/v	FALBD	A	711	90	99	88	100
								Mean =	90	93	84	96
20	Classic	0.0234	lb ai/a	1.5	oz/a	FALBD	A	206	65	99	75	100
	Express	0.007	lb ai/a	0.15	oz/a	FALBD	A	414	97	99	98	100
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A	511	70	0	70	0
	Crop Oil Conc	1	% v/v	1	% v/v	FALBD	A	807	93	99	88	100
								Mean =	81	74	83	75
21	Nontreated check							207	0	0	0	0
								413	0	0	0	0
								611	0	0	0	0
								801	0	0	0	0
								Mean =	0	0	0	0
22	Classic	0.0156	lb ai/a	1	oz/a	FALBD	A	208	93	70	70	55
	Express	0.0047	lb ai/a	0.1	oz/a	FALBD	A	403	75	70	60	60
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A	514	93	80	90	90
	Crop Oil Conc	1	% v/v	1	% v/v	FALBD	A	701	60	15	65	80
								Mean =	80	59	71	71
23	Basis	0.0155	lb ai/a	0.33	oz/a	FALBD	A	209	95	99	90	100
	Express	0.00586	lb ai/a	0.125	oz/a	FALBD	A	305	93	99	75	100
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A	607	85	99	75	100
	Crop Oil Conc	1	% v/v	1	% v/v	FALBD	A	813	85	99	80	100
								Mean =	90	99	80	100
24	Matrix	0.0156	lb ai/a	1	oz/a	FALBD	A	210	60	99	35	100
	Harmony GT	0.0155	lb ai/a	0.33	oz/a	FALBD	A	306	88	99	90	100
	Express	0.0078	lb ai/a	0.167	oz/a	FALBD	A	605	97	99	99	100
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A	714	85	0	95	100
	Crop Oil Conc	1	% v/v	1	% v/v	FALBD	A					
								Mean =	83	74	80	100
25	Matrix	0.0625	lb ai/a	4	oz/a	FALBD	A	211	99	99	100	100
	Harmony GT	0.0623	lb ai/a	1.33	oz/a	FALBD	A	404	97	99	100	100
	Express	0.0314	lb ai/a	0.67	oz/a	FALBD	A	606	99	99	98	100
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A	809	90	99	99	100
	Crop Oil Conc	1	% v/v	1	% v/v	FALBD	A					
								Mean =	96	99	99	100
26	Canopy XL					FALBD	A	212	70	99	60	100
	Classic	0.0203	lb ai/a	1.3	oz/a	FALBD	A	309	78	99	60	100
	Authority	0.103	lb ai/a	2.2	oz/a	FALBD	A	501	83	99	70	95
	Express	0.007	lb ai/a	0.15	oz/a	FALBD	A	712	65	99	65	100
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A					
	Crop Oil Conc	1	% v/v	1	% v/v	FALBD	A					
								Mean =	74	99	64	99
27	AEF115008	0.00179	lb ai/a	2	g ai/ha	FALBD	A	213	99	99	93	100
	Nitrogen 28%	2	qt/a	2	qt/a	FALBD	A	304	93	90	60	80
	Crop Oil Conc	1	% v/v	1	% v/v	FALBD	A	513	85	99	85	100
								812	65	99	50	100
								Mean =	86	97	72	95

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Crop Stage Scale											seed set	seed set
Weed Stage											12-24"	6-10"
Weed Density, Unit									50 YD2	20 YD2	15 YD2	15 YD2
Trt-Eval Interval									130 DA-A	130 DA-A	165 DA-A	165 DA-A
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	1	2	3	4
28	AEF115008	0.00179	lb ai/a	2	g ai/ha	FALBD	A	214	99	99	98	100
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A	408	95	99	90	100
	Nitrogen 28%	2	qt/a	2	qt/a	FALBD	A	502	80	80	55	98
	Crop Oil Conc	1	% v/v	1	% v/v	FALBD	A	707	65	99	55	100
Mean =									85	94	75	100

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Study Dir.: Vince Davis

Location: Wanatah, IN

Investigator: Dr. William G. Johnson

Weed Code								STEME	LAMPU	STEME	LAMPU
Rating Date								28/Mar/2005	28/Mar/2005	2/May/2005	2/May/2005
Crop Stage Scale										seed set	seed set
Weed Stage										12-24"	6-10"
Weed Density, Unit								50 YD2	20 YD2	15 YD2	15 YD2
Trt-Eval Interval								130 DA-A	130 DA-A	165 DA-A	165 DA-A
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	1	2	3	4
								0 h	0 d	0 j	0 e
1	Untreated Check							0 h	0 d	0 j	0 e
2	V-10142	0.2	lb ai/a	7.76	oz/a	FALBD	A	40 g	81 abc	36 i	88 abc
	Crop Oil Conc	1	pt/a	1	pt/a	FALBD	A				
3	Valor	0.064	lb ai/a	2	oz/a	FALBD	A	95 a-d	86 abc	84 a-f	92 abc
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A				
	Express	0.0056	lb ai/a	0.12	oz/a	FALBD	A				
	Crop Oil Conc	1	pt/a	1	pt/a	FALBD	A				
4	Valor	0.064	lb ai/a	2	oz/a	FALBD	A	94 a-d	99 a	88 a-f	100 a
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A				
	V-10142	0.2	lb ai/a	7.76	oz/a	FALBD	A				
	Crop Oil Conc	1	pt/a	1	pt/a	FALBD	A				
5	Valor	0.064	lb ai/a	2	oz/a	FALBD	A	96 ab	99 a	92 a-d	100 a
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A				
	Crop Oil Conc	1	pt/a	1	pt/a	FALBD	A				
6	Valor	0.064	lb ai/a	2	oz/a	FALBD	A	93 a-d	99 a	88 a-e	100 a
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A				
	Sencor 75DF	0.188	lb ai/a	4	oz/a	FALBD	A				
	Crop Oil Conc	1	pt/a	1	pt/a	FALBD	A				
7	Valor	0.064	lb ai/a	2	oz/a	FALBD	A	94 a-d	96 ab	81 c-f	98 a
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A				
	Sencor 75DF	0.094	lb ai/a	2	oz/a	FALBD	A				
	Crop Oil Conc	1	pt/a	1	pt/a	FALBD	A				
8	Valor	0.064	lb ai/a	2	oz/a	FALBD	A	77 ef	81 abc	75 efg	94 ab
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A				
	Harmony GT	0.0094	lb ai/a	0.2	oz/a	FALBD	A				
	Crop Oil Conc	1	pt/a	1	pt/a	FALBD	A				
9	Valor	0.064	lb ai/a	2	oz/a	FALBD	A	95 abc	98 ab	93 a-d	99 a
	Scepter	0.061	lb ae/a	1.4	oz/a	FALBD	A				
	Roundup (ae)	0.375	lb ae/a	1	pt/a	FALBD	A				
	Ammonium Sulfate	2.55	lb/a	17	lb/100 gal	FALBD	A				
	NIS	0.25	% v/v	0.25	% v/v	FALBD	A				
10	Valor	0.064	lb ai/a	2	oz/a	FALBD	A	98 a	99 a	85 a-f	96 ab
	Roundup (ae)	0.375	lb ae/a	1	pt/a	FALBD	A				
	Ammonium Sulfate	2.55	lb/a	17	lb/100 gal	FALBD	A				
	NIS	0.25	% v/v	0.25	% v/v	FALBD	A				
11	Scepter	0.123	lb ae/a	2.8	oz/a	FALBD	A	99 a	99 a	99 ab	98 a
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A				
	Roundup Weathermax	0.77	lb ae/a	22	oz/a	FALBD	A				
	Ammonium Sulfate	2.55	lb/a	17	lb/100 gal	FALBD	A				
	NIS	0.25	% v/v	0.25	% v/v	FALBD	A				
12	Scepter	0.123	lb ae/a	2.8	oz/a	FALBD	A	98 a	99 a	98 abc	99 a
	Range Star	0.484	lb ae/a	16	oz/a	FALBD	A				
	Roundup Weathermax	0.77	lb ae/a	22	oz/a	FALBD	A				
	Ammonium Sulfate	2.55	lb/a	17	lb/100 gal	FALBD	A				
	NIS	0.25	% v/v	0.25	% v/v	FALBD	A				

## Purdue University

Weed Code								STEME	LAMPU	STEME	LAMPU
Rating Date								28/Mar/2005	28/Mar/2005	2/May/2005	2/May/2005
Crop Stage Scale										seed set	seed set
Weed Stage										12-24"	6-10"
Weed Density, Unit								50 YD2	20 YD2	15 YD2	15 YD2
Trt-Eval Interval								130 DA-A	130 DA-A	165 DA-A	165 DA-A
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	1	2	3	4
13	Nontreated check							0 h	0 d	0 j	0 e
14	Scepter	0.092	lb ae/a	2.1	oz/a	45 EPP	B	0 h	0 d	99 ab	95 ab
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	45 EPP	B				
	Roundup Weathermax	0.77	lb ae/a	22	oz/a	45 EPP	B				
	Ammonium Sulfate	2.55	lb/a	17	lb/100 gal	45 EPP	B				
	NIS	0.25	% v/v	0.25	% v/v	45 EPP	B				
15	Scepter	0.092	lb ae/a	2.1	oz/a	30 EPP	C	0 h	0 d	54 h	48 d
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	30 EPP	C				
	Roundup Weathermax	0.77	lb ae/a	22	oz/a	30 EPP	C				
	Ammonium Sulfate	2.55	lb/a	17	lb/100 gal	30 EPP	C				
	NIS	0.25	% v/v	0.25	% v/v	30 EPP	C				
16	Scepter	0.092	lb ae/a	2.1	oz/a	15 EPP	D	0 h	0 d	21 i	49 d
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	15 EPP	D				
	Roundup Weathermax	0.77	lb ae/a	22	oz/a	15 EPP	D				
	Ammonium Sulfate	2.55	lb/a	17	lb/100 gal	15 EPP	D				
	NIS	0.25	% v/v	0.25	% v/v	15 EPP	D				
17	FirstRate	0.025	lb/a	0.4	oz/a	FALBD	A	83 b-f	68 bc	82 c-f	86 abc
	GF-1279 (IPA-salt glyph)	0.375	lb ae/a	12	oz/a	FALBD	A				
	2,4-D ESTER	0.5	lb ae/a	16	oz/a	FALBD	A				
	Ammonium Sulfate	2.55	lb/a	17	lb/100 gal	FALBD	A				
	NIS	1	pt/100 gal	1	pt/100 gal	FALBD	A				
18	Python	0.0625	lb/a	1	oz/a	FALBD	A	87 a-f	71 abc	86 a-f	80 abc
	GF-1279 (IPA-salt glyph)	0.375	lb ae/a	12	oz/a	FALBD	A				
	2,4-D ESTER	0.5	lb ae/a	16	oz/a	FALBD	A				
	Ammonium Sulfate	2.55	lb/a	17	lb/100 gal	FALBD	A				
19	Classic	0.0313	lb ai/a	2	oz/a	FALBD	A	90 a-e	93 ab	84 a-f	96 ab
	Express	0.0094	lb ai/a	0.2	oz/a	FALBD	A				
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A				
	Crop Oil Conc	1	% v/v	1	% v/v	FALBD	A				
20	Classic	0.0234	lb ai/a	1.5	oz/a	FALBD	A	81 c-f	74 abc	83 b-f	75 bc
	Express	0.007	lb ai/a	0.15	oz/a	FALBD	A				
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A				
	Crop Oil Conc	1	% v/v	1	% v/v	FALBD	A				
21	Nontreated check							0 h	0 d	0 j	0 e
22	Classic	0.0156	lb ai/a	1	oz/a	FALBD	A	80 def	59 c	71 fg	71 c
	Express	0.0047	lb ai/a	0.1	oz/a	FALBD	A				
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A				
	Crop Oil Conc	1	% v/v	1	% v/v	FALBD	A				
23	Basis	0.0155	lb ai/a	0.33	oz/a	FALBD	A	90 a-e	99 a	80 d-g	100 a
	Express	0.00586	lb ai/a	0.125	oz/a	FALBD	A				
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A				
	Crop Oil Conc	1	% v/v	1	% v/v	FALBD	A				
24	Matrix	0.0156	lb ai/a	1	oz/a	FALBD	A	83 b-f	74 abc	80 d-g	100 a
	Harmony GT	0.0155	lb ai/a	0.33	oz/a	FALBD	A				
	Express	0.0078	lb ai/a	0.167	oz/a	FALBD	A				
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A				
	Crop Oil Conc	1	% v/v	1	% v/v	FALBD	A				

# Purdue University

Weed Code								STEME	LAMPU	STEME	LAMPU
Rating Date								28/Mar/2005	28/Mar/2005	2/May/2005	2/May/2005
Crop Stage Scale										seed set	seed set
Weed Stage										12-24"	6-10"
Weed Density, Unit								50 YD2	20 YD2	15 YD2	15 YD2
Trt-Eval Interval								130 DA-A	130 DA-A	165 DA-A	165 DA-A
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	1	2	3	4
25	Matrix	0.0625	lb ai/a	4	oz/a	FALBD	A	96 ab	99 a	99 a	100 a
	Harmony GT	0.0623	lb ai/a	1.33	oz/a	FALBD	A				
	Express	0.0314	lb ai/a	0.67	oz/a	FALBD	A				
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A				
	Crop Oil Conc	1	% v/v	1	% v/v	FALBD	A				
26	Canopy XL					FALBD	A	74 f	99 a	64 gh	99 a
	Classic	0.0203	lb ai/a	1.3	oz/a	FALBD	A				
	Authority	0.103	lb ai/a	2.2	oz/a	FALBD	A				
	Express	0.007	lb ai/a	0.15	oz/a	FALBD	A				
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A				
	Crop Oil Conc	1	% v/v	1	% v/v	FALBD	A				
27	AEF115008	0.00179	lb ai/a	2	g ai/ha	FALBD	A	86 a-f	97 ab	72 efg	95 ab
	Nitrogen 28%	2	qt/a	2	qt/a	FALBD	A				
	Crop Oil Conc	1	% v/v	1	% v/v	FALBD	A				
28	AEF115008	0.00179	lb ai/a	2	g ai/ha	FALBD	A	85 a-f	94 ab	75 efg	100 a
	2,4-D ESTER	0.5	lb ae/a	1	pt/a	FALBD	A				
	Nitrogen 28%	2	qt/a	2	qt/a	FALBD	A				
	Crop Oil Conc	1	% v/v	1	% v/v	FALBD	A				
LSD (P=.05)								14.4	30.7	16.5	21.7
Standard Deviation								10.2	21.7	11.7	15.3
CV								14.98	31.01	16.59	19.04
Grand Mean								68.21	70.08	70.25	80.54
Bartlett's X2								70.554	60.077	72.74	84.926
P(Bartlett's X2)								0.001*	0.001*	0.001*	0.001*
Replicate F								2.308	0.153	0.326	0.208
Replicate Prob(F)								0.0827	0.9273	0.8063	0.8908
Treatment F								55.248	12.829	27.220	17.125
Treatment Prob(F)								0.0001	0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, LSD)  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.