

# Purdue University

## Fall Applied Herbicide - Before Soybean - SWPAC

Trial ID: FALL 001  
Location: SWPAC

Study Dir.: BILL JOHNSON  
Investigator: Dr. William G. Johnson

### GENERAL TRIAL INFORMATION

**Study Director:** BILL JOHNSON  
**Investigator:** Dr. William G. Johnson  
**Affiliation:** Purdue University  
**Postal Code:** 47907

### TRIAL LOCATION

**City:** PENNY PURDUE **Trial Status:** OPEN  
**State/Prov.:** IN  
**Country:** USA

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

### CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	STEME	COMMON CHICKWEED	STELLARIA MEDIA
2.	LAMAM	HENBIT	LAMIUM AMPLEXICAULE L.
3.	LAMPU	PURPLE DEADNETTLE	LAMIUM PURPUREUM
4.	TAROF	DANDELION, COMMON	TARAXACUM OFFICINALE WEBER IN WIGGERS

SOYBEAN

### SITE AND DESIGN

**Plot Width, Unit:** 10 FT **Plot Length, Unit:** 40 FT **Reps:** 4  
**Site Type:** RESEARCH STATION  
**Tillage Type:** NO-TILL **Study Design:** RANDOMIZED COMPLETE BLOCK

### APPLICATION DESCRIPTION

	A
<b>Application Date:</b>	22/Nov/2002
<b>Time of Day:</b>	3:00 PM
<b>Application Method:</b>	BACKPACK
<b>Application Timing:</b>	FALL
<b>Applic. Placement:</b>	BROFOL
<b>Air Temp., Unit:</b>	46 F
<b>% Relative Humidity:</b>	49
<b>Wind Velocity, Unit:</b>	8.0 MPH
<b>Soil Temp., Unit:</b>	6 F
<b>Soil Moisture:</b>	ADEQUATE
<b>% Cloud Cover:</b>	95

### WEED STAGE AT EACH APPLICATION

	A
<b>Weed 1 Code, Stage:</b>	STEME 2-3"
<b>Stage Scale:</b>	INCHES
<b>Density, Unit:</b>	30 FT2
<b>Weed 2 Code, Stage:</b>	LAMAM 1.00"
<b>Stage Scale:</b>	INCHES
<b>Density, Unit:</b>	3 FT2
<b>Weed 3 Code, Stage:</b>	LAMPU 1-2"
<b>Stage Scale:</b>	INCHES
<b>Density, Unit:</b>	1 FT2
<b>Weed 4 Code, Stage:</b>	TAROF 3"
<b>Stage Scale:</b>	INCHES
<b>Density, Unit:</b>	1 FT2

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## APPLICATION EQUIPMENT

	<b>A</b>
<b>Appl. Equipment:</b>	BACKPACK
<b>Operating Pressure:</b>	32
<b>Nozzle Spacing, Unit:</b>	20 IN
<b>Nozzles/Row:</b>	6
<b>Boom Height, Unit:</b>	18 IN
<b>Ground Speed, Unit:</b>	3 MPH
<b>Carrier:</b>	WATER
<b>Spray Volume, Unit:</b>	15 GPA
<b>Propellant:</b>	CO2

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Study Dir.: BILL JOHNSON  
Investigator: Dr. William G. Johnson

Weed Code	STEME	LAMAM	CAPBP	TAROF	LAMAM	STEME							
Rating Date	18/Dec/2002	18/Dec/2002	18/Dec/2002	18/Dec/2002	31/Mar/2003	31/Mar/2003							
Weed Stage	1-6 in	1 in	5 in		8-10 in	10-12 in							
Weed Density, Unit	18 ft2	2 ft2	2 ft2	4 ft2	10 ft2	3 ft2							
Trt-Eval Interval		26 DA-A	26 DA-A	26 DA-A	129 DA-A	129 DA-A							
Trt No.	Treatment Name	Rate	Grow Unit	Stg	1	2	3	4	5	6			
1	Canopy XL Express Weedone LV4 Crop Oil Conc	68	ab	87	a	57	a	65	ab	100	a	73	ab
2	Canopy XL Express Weedone LV4 Crop Oil Conc	41	ab	73	a	58	a	87	a	100	a	96	a
3	Valor Express Weedone LV4 Crop Oil Conc	92	a	93	a	47	a	70	ab	100	a	91	a
4	Valor Weedone LV4 Crop Oil Conc	70	ab	93	a	60	a	62	ab	100	a	33	cd
5	Valor Basis Weedone LV4 Crop Oil Conc	67	ab	60	a	55	a	63	ab	100	a	98	a
6	Backdraft SL Weedone LV4 NIS AMS	79	a	92	a	90	a	65	ab	100	a	100	a
7	Scepter Weedone LV4 NIS AMS	79	a	70	a	77	a	75	a	69	b	70	ab
8	Prowl H2O Backdraft SL Weedone LV4 AMS	52	ab	50	a	87	a	80	a	100	a	99	a
9	Python Sencor Weedone LV4 Crop Oil Conc	70	ab	55	a	65	a	48	ab	100	a	76	a
10	Gramoxone Max Weedone LV4 NIS	95	a	95	a	97	a	94	a	84	ab	86	a
11	Scepter Authority Weedone LV4 Crop Oil Conc	67	ab	88	a	50	a	67	ab	93	a	60	abc
12	Roundup WeatherMax AMS	48	ab	70	a	70	a	92	a	97	a	84	a
13	Roundup WeatherMax AMS	47	ab	80	a	60	a	90	a	93	a	88	a
14	Roundup WeatherMax Weedone LV4 AMS	53	ab	65	a	85	a	62	ab	99	a	94	a
15	Roundup WeatherMax Weedone LV4 AMS	73	ab	77	a	66	a	58	ab	99	a	85	a

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Rating Date	18/Dec/2002	18/Dec/2002	18/Dec/2002	18/Dec/2002	31/Mar/2003	31/Mar/2003								
Weed Stage	1-6 in	1 in	5 in		8-10 in	10-12 in								
Weed Density, Unit	18 ft2	2 ft2	2 ft2	4 ft2	10 ft2	3 ft2								
Trt-Eval Interval		26 DA-A	26 DA-A	26 DA-A	129 DA-A	129 DA-A								
Trt No.	Treatment Name	Rate	Grow Unit	Stg	1	2	3	4	5	6				
16	Roundup WeatherMax Canopy XL Weedone LV4 AMS	73	ab		73	a	72	a	77	a	100	a	100	a
17	Rounup WeatherMax Canopy XL Weedone LV4 AMS	18	ab		70	a	93	a	74	a	99	a	97	a
18	Roundup WeatherMax Canopy XL Weedone LV4 AMS	60	ab		80	a	72	a	59	ab	98	a	98	a
19	Boundry Weedone LV4	38	ab		58	a	48	a	92	a	100	a	37	bcd
20	Boundry Weedone LV4	71	ab		69	a	61	a	45	ab	100	a	67	abc
21	Touchdown Weedone LV4 AMS													
22	Weedone LV4	70	ab		70	a	73	a	83	a	80	ab	7	de
23	Valor Regiment Weedone LV4 Crop Oil Conc	87	a		82	a	80	a	67	ab	99	a	73	ab
24	Valor Weedone LV4 NIS	53	ab		65	a	58	a	93	a	100	a	7	de
25	Valor Roundup WeatherMax AMS	33	ab		52	a	61	a	84	a	100	a	99	a
26	Valor Banvel NIS	81	a		87	a	72	a	65	ab	90	a	59	abc
27	Valor Banvel Weedone LV4 NIS	69	ab		74	a	77	a	92	a	100	a	77	a
28	Valor Stellar Weedone Crop Oil Conc	63	ab		82	a	92	a	93	a	100	a	38	bcd
29	Weedy Check	0	b		0	a	0	a	0	b	0	c	0	e
LSD (P=.05)		41.5			41.4		45.8		41.2		15.7		23.5	
Standard Deviation		25.4			25.4		28.0		25.3		9.6		14.4	
CV		41.46			35.33		41.7		35.35		10.38		20.26	
Grand Mean		61.33			71.77		67.21		71.46		92.89		71.19	
Bartlett's X2		30.566			35.87		44.592		44.84		44.732		50.9	
P(Bartlett's X2)		0.204			0.074		0.013*		0.012*		0.001*		0.001*	
Replicate F		1.082			1.876		3.477		2.399		1.573		1.676	
Replicate Prob(F)		0.3463			0.1637		0.0380		0.1004		0.2169		0.1968	
Treatment F		2.153			1.679		1.418		1.874		12.446		13.470	
Treatment Prob(F)		0.0088			0.0552		0.1365		0.0249		0.0001		0.0001	

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Weed Code	TAROF	CAPBP	LAMAM	STEME	CAPBP	
Rating Date	31/Mar/2003	31/Mar/2003	30/Apr/2003	30/Apr/2003	30/Apr/2003	
Weed Stage	9-12 in	4-8 in				
Weed Density, Unit	4 ft <sup>2</sup>	1 ft <sup>2</sup>				
Trt-Eval Interval	129 DA-A	129 DA-A	159 DA-A	159 DA-A	159 DA-A	
Trt No.	Treatment Name	Rate	Grow Unit	Stg		
		7	8	9	10	11
1	Canopy XL Express Weedone LV4 Crop Oil Conc	100 a	100 a	100 a	85 a	99 a
2	Canopy XL Express Weedone LV4 Crop Oil Conc	100 a	100 a	98 a	90 a	98 a
3	Valor Express Weedone LV4 Crop Oil Conc	100 a	98 a	99 a	98 a	96 ab
4	Valor Weedone LV4 Crop Oil Conc	100 a	87 a	98 a	25 bcd	92 ab
5	Valor Basis Weedone LV4 Crop Oil Conc	100 a	100 a	100 a	95 a	96 ab
6	Backdraft SL Weedone LV4 NIS AMS	100 a	98 a	96 a	100 a	99 a
7	Scepter Weedone LV4 NIS AMS	100 a	97 a	66 ab	75 a	89 ab
8	Prowl H2O Backdraft SL Weedone LV4 AMS	100 a	98 a	98 a	98 a	93 ab
9	Python Sencor Weedone LV4 Crop Oil Conc	94 a	100 a	99 a	88 a	88 ab
10	Gramoxone Max Weedone LV4 NIS	62 b	95 a	85 ab	90 a	73 bc
11	Scepter Authority Weedone LV4 Crop Oil Conc	98 a	90 a	90 a	73 ab	83 ab
12	Roundup WeatherMax AMS	77 ab	73 a	93 a	87 a	65 c
13	Roundup WeatherMax AMS	83 a	93 a	86 ab	89 a	81 abc
14	Roudnup WeatherMax Weedone LV4 AMS	94 a	100 a	83 ab	92 a	88 ab
15	Roundup WeatherMax Weedone LV4 AMS	93 a	98 a	61 b	65 abc	90 ab
16	Roundup WeatherMax Canopy XL Weedone LV4 AMS	100 a	93 a	100 a	99 a	98 a

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Weed Code	TAROF	CAPBP	LAMAM	STEME	CAPBP	
Rating Date	31/Mar/2003	31/Mar/2003	30/Apr/2003	30/Apr/2003	30/Apr/2003	
Weed Stage	9-12 in	4-8 in				
Weed Density, Unit	4 ft2	1 ft2				
Trt-Eval Interval	129 DA-A	129 DA-A	159 DA-A	159 DA-A	159 DA-A	
Trt No.	Treatment Name	Rate	Grow Unit	Stg		
		7	8	9	10	11
17	Rounup WeatherMax Canopy XL Weedone LV4 AMS	97 a	99 a	98 a	98 a	96 ab
18	Roundup WeatherMax Canopy XL Weedone LV4 AMS	93 a	100 a	99 a	96 a	88 ab
19	Boundry Weedone LV4	100 a	80 a	97 a	50 abc	87 ab
20	Boundry Weedone LV4	100 a	93 a	98 a	69 abc	87 ab
21	Touchdown Weedone LV4 AMS					
22	Weedone LV4	99 a	90 a	87 ab	0 d	79 abc
23	Valor Regiment Weedone LV4 Crop Oil Conc	100 a	100 a	100 a	57 abc	97 ab
24	Valor Weedone LV4 NIS	100 a	100 a	100 a	0 d	88 ab
25	Valor Roundup WeatherMax AMS	98 a	97 a	98 a	97 a	91 ab
26	Valor Banvel NIS	100 a	20 b	98 a	57 abc	20 d
27	Valor Banvel Weedone LV4 NIS	100 a	100 a	100 a	65 abc	93 ab
28	Valor Stellar Weedone Crop Oil Conc	100 a	100 a	100 a	23 cd	94 ab
29	Weedy Check	0 c	0 b	0 c	0 d	0 e
LSD (P=.05)		15.3	20.8	19.0	30.8	13.0
Standard Deviation		9.4	12.7	11.6	18.9	7.9
CV		10.14	14.27	12.85	26.95	9.45
Grand Mean		92.42	89.28	90.33	70.02	83.9
Bartlett's X2		33.139	37.496	85.653	72.04	46.797
P(Bartlett's X2)		0.001*	0.001*	0.001*	0.001*	0.005*
Replicate F		0.864	0.251	0.122	2.365	4.232
Replicate Prob(F)		0.4273	0.7786	0.8853	0.1037	0.0197
Treatment F		13.755	10.176	9.190	8.840	24.091
Treatment Prob(F)		0.0001	0.0001	0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)

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