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Glyphosate Resistant Horseweed Study - Corn

Trial ID: 05-SEPAC-CORN-GRH
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 **Initiation Date:** 8/Mar/2005
Country: USA **Planned Completion Date:** 14/Jul/2005
Directions: Field T3

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 compare the performance of various glyphosate/phenoxy combinations on control of weeds ie; glyphosate resistant marestail, henbit, mouse-ear chickweed, groundsel, and others. Also, observe crop tolerance to corn planted 7 days after application.

CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	ERICA	Erigeron canadensis	Horseweed
2.	IPOHH	Ipomoea hederacea	Morningglory, Ivyleaf
3.	PANDI	Panicum dichotomiflorum	Panicum, fall
4.	SIDSP	Sida spinosa	Prickly sida
5.	RUMCR	Rumex crispus	Curly dock
6.	SENGL	Senecio glabellus	Groundsel, cressleaf
7.	POAAN	Poa annua	Annual bluegrass
8.	RANSS	Ranunculus sp.	Buttercup
9.	HLESC	Heleochloa schoenoides	Timothy, false
10.	CERVU	Cerastium vulgatum	Mouseear chickweed
11.	HOLUM	Holosteum umbellatum	Jagged chickweed

Crop 1: ZEAMX CORN, FIELD **Variety:** DKC 60-09 RR/YGCB
Planting Date: 10/May/2004 **Planting Method:** No-Till planted
Rate: 29000 S/A **Depth:** 1 IN
Row Spacing: 30 IN
Soil Temperature: 67 F **Soil Moisture:** NORMAL

Crop 2: ZEAMX CORN, FIELD **Variety:** DKC 61-45 RR
Planting Date: 7/Jun/2005 **Planting Method:** No-Till RE-planted
Rate: 19000 S/A **Depth:** 1 IN
Row Spacing: 30 IN
Soil Temperature: 77 F **Soil Moisture:** NORMAL

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

	Previous Crops	Previous Pesticides	Year
1.	soybean	glyphosate	2004

MAINTENANCE

Field Prep./Maintenance:

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May 24, 2004 - Field prep / maintenance: SEPAC farm crew applied Fusion (20 oz/acre) to the study area to control the false timothy and annual bluegrass. By May 24, most of the winter annuals had completed their lifecycles, and the resulting weed population will consist of horseweed (marestail) until summer annuals emerge.

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.	24/May/2005	Fusion	2.56		L	20	FL OZ/A

SOIL DESCRIPTION

% OM: 1.4 Texture: Silt Loam
 pH: 5.9 Soil Name: Clermont
 CEC: 5.5 Fert. Level: P - 30 ppm, K - 49 ppm

MOISTURE CONDITIONS

Overall Moisture Conditions: Wet early then very dry after second planting.

Closest Weather Station: Located at SEPAC Distance: 0.5 Unit: MI

APPLICATION DESCRIPTION

	A	B	C
Application Date:	3/May/2005	16/Jun/2005	16/Jun/2005
Time of Day:	10:00am	10:00am	
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	Late POST	POSTBL	DUPONTTRT
Applic. Placement:	BROFOL	BROFOL	BROFOL
Air Temp., Unit:	47 F	74 F	
% Relative Humidity:	90	37	
Wind Velocity, Unit:	4 MPH	2.5 MPH	
Soil Temp., Unit:	46 F	72 F	
Soil Moisture:	dry surf	Moist	
% Cloud Cover:	60	10	

CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	ZEAMX	ZEAMX V4-V5	ZEAMX
Stage Scale:	NO CROP	DESC	
Crop 2 Code, Stage:	ZEAMX	ZEAMX	ZEAMX

WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code, Stage:	ERICA	ERICA	ERICA
Stage Scale:	1-2" bolt	1-3"boltd	
Density, Unit:	3 FT2	18 YD2	
Weed 2 Code, Stage:	IPOHH	IPOHH	IPOHH
Stage Scale:		1-2"cot	
Density, Unit:		9 YD2	
Weed 3 Code, Stage:	PANDI	PANDI	PANDI
Stage Scale:		2-5"4leaf	
Density, Unit:		135 YD2	
Weed 4 Code, Stage:	SIDSP	SIDSP	SIDSP
Stage Scale:		1" 5leaf	
Density, Unit:		18 YD2	
Weed 5 Code, Stage:	RUMCR	RUMCR	RUMCR
Stage Scale:	6-12"7lea	5-24"seed	
Density, Unit:	9 YD2	23 YD2	
Weed 6 Code, Stage:	SENGL	SENGL	SENGL
Stage Scale:	6-30" flo		
Density, Unit:	99 YD2		
Weed 7 Code, Stage:	POAAN	POAAN	POAAN
Stage Scale:	2-4"		
Density, Unit:	36 YD2		
Weed 8 Code, Stage:	RANSS	RANSS	RANSS
Stage Scale:	2-12" flo		
Density, Unit:	18 YD2		
Weed 9 Code, Stage:	HLESC	HLESC	HLESC
Stage Scale:	3-8"seed		
Density, Unit:	99 YD2		
Weed10 Code, Stage:	CERVU	CERVU	CERVU
Stage Scale:	2-6"flowe		
Density, Unit:	14 YD2		
Weed11 Code, Stage:	HOLUM	HOLUM	HOLUM
Stage Scale:	2-8"flowe		
Density, Unit:	36 YD2		

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APPLICATION EQUIPMENT

	A	B	C
Operating Pressure:	26-27psi	26-27psi	
Nozzle Type:	XR11002VS	XR11002VS	
Nozzle Size:	XR11002VS	XR11002VS	
Nozzle Spacing, Unit:	20 IN	20 IN	
Boom Length, Unit:	10 FT	10 FT	
Boom Height, Unit:	25 IN	25 IN	
Ground Speed, Unit:	3 MPH	3 MPH	
Carrier:	Water	Water	
Spray Volume, Unit:	15 GPA	15 GPA	
Propellant:	CO2	CO2	

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 Location: SEPAC

Study Dir.: Vince Davis
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Weed Code									POAAN	SENGL	RANSS	HLESC	SENGL
Part Rated													
Rating Data Type									CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit									1-100	1-100	1-100	1-100	1-100
Rating Date									10/May/2005	10/May/2005	10/May/2005	17/May/2005	17/May/2005
Weed Stage									4-6"seed	12-24"	15"seed	6-8"seed	18"seed
Weed Density, Unit									75 YD2	11 YD2	<1 YD2	75 YD2	11 YD2
Assessed By									RD/WJG	RD/WJG	RD/WJG	RD/WJG	RD/WJG
Trt-Eval Interval									7 DA-A	7 DA-A	7 DA-A	14 DA-A	14 DA-A
Trt No.	Treatment Name	Rate	Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	1	2	3	4	5
1	NUP 3C 02	24	fl oz/a	24	fl oz/a	PREPOS	A	101	80	85	80	100	100
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	302	88	50	50	99	95
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	504	83	90	90	99	100
								702	93	100	68	100	100
								Mean =	86	81	72	100	99
2	NUP 10A 04	24	fl oz/a	24	fl oz/a	PREPOS	A	102	70	95	90	100	100
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	401	80	35	40	100	98
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	505	80	85	85	100	100
								703	95	60	40	100	99
								Mean =	81	69	64	100	99
3	NUP 1G 05	24	fl oz/a	24	fl oz/a	PREPOS	A	103	75	85	80	100	100
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	406	90	100	50	99	100
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	510	78	35	40	100	98
								802	70	25	50	99	95
								Mean =	78	61	55	100	98
4	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	104	65	40	40	98	80
	NUP 2F 02	16	fl oz/a	16	fl oz/a	PREPOS	A	308	60	30	20	92	70
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	507	90	98	50	99	100
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	709	75	55	15	100	97
								Mean =	73	56	31	97	87
5	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	105	70	70	75	100	82
	NUP 12J 04	16	fl oz/a	16	fl oz/a	PREPOS	A	305	75	55	25	92	88
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	603	80	60	40	99	97
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	705	90	80	90	99	85
								Mean =	79	66	58	98	88
6	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	106	65	40	30	100	60
	NUP 12K 04	16	fl oz/a	16	fl oz/a	PREPOS	A	303	50	20	10	80	25
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	501	78	88	80	98	99
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	810	93	35	40	90	100
								Mean =	72	46	40	92	71
7	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	107	70	60	50	100	88
	NUP 12C 04	16	fl oz/a	16	fl oz/a	PREPOS	A	402	80	99	50	0	100
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	506	85	100	50	98	100
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	804	75	75	65	100	98
								Mean =	78	84	54	75	97
8	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	108	75	80	70	100	92
	NUP 1A 05	16	fl oz/a	16	fl oz/a	PREPOS	A	408	90	100	100	99	100
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	609	65	98	35	99	99
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	809	80	65	65	93	97
								Mean =	78	86	68	98	97
9	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	109	70	70	75	99	80
	NUP 1B 05	16	fl oz/a	16	fl oz/a	PREPOS	A	304	85	55	55	99	83
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	606	80	65	70	99	99
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	701	90	90	70	100	100
								Mean =	81	70	68	99	91

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Weed Code									POAAN	SENGL	RANSS	HLESC	SENGL
Part Rated													
Rating Data Type									CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit									1-100	1-100	1-100	1-100	1-100
Rating Date									10/May/2005	10/May/2005	10/May/2005	17/May/2005	17/May/2005
Weed Stage									4-6"seed	12-24"	15"seed	6-8"seed	18"seed
Weed Density, Unit									75 YD2	11 YD2	<1 YD2	75 YD2	11 YD2
Assessed By									RD/WJG	RD/WJG	RD/WJG	RD/WJG	RD/WJG
Trt-Eval Interval									7 DA-A	7 DA-A	7 DA-A	14 DA-A	14 DA-A
Trt No.	Treatment Name	Rate	Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	1	2	3	4	5
10	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	110	80	70	70	98	95
	NUP 12D 04	16	fl oz/a	16	fl oz/a	PREPOS	A	307	85	65	50	95	88
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	602	83	100	100	99	99
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	808	90	100	75	100	100
								Mean =	85	84	74	98	96
11	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	201	50	80	80	100	98
	NUP 1C 05	16	fl oz/a	16	fl oz/a	PREPOS	A	306	85	50	50	98	83
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	610	73	98	75	95	100
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	806	80	90	80	93	100
								Mean =	72	80	71	97	95
12	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	202	35	50	50	95	42
	NUP 11D 01	16	fl oz/a	16	fl oz/a	PREPOS	A	409	75	30	40	98	50
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	601	65	75	90	95	98
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	706	78	50	50	100	95
								Mean =	63	51	58	97	71
13	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	203	40	25	20	85	25
	NUP 11B 01	16	fl oz/a	16	fl oz/a	PREPOS	A	410	85	25	75	97	75
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	509	70	25	40	99	85
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	805	75	60	75	95	100
								Mean =	68	34	53	94	71
14	NUP 12A 04	12	fl oz/a	12	fl oz/a	PREPOS	A	204	70	60	70	98	85
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	310	65	75	50	98	97
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	502	75	70	75	95	100
								710	80	90	50	100	100
								Mean =	73	74	61	98	96
15	NUP 12E 04	24	fl oz/a	24	fl oz/a	PREPOS	A	205	70	65	75	98	90
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	301	75	50	50	98	80
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	607	85	80	55	100	100
								803	75	50	75	100	98
								Mean =	76	61	64	99	92
16	NUP 3E 04	24	fl oz/a	24	fl oz/a	PREPOS	A	206	55	35	25	100	60
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	309	65	40	25	100	80
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	608	85	70	30	98	100
								704	88	35	99	99	85
								Mean =	73	45	45	99	81
17	NUP 10A 04	12	fl oz/a	12	fl oz/a	PREPOS	A	207	75	60	70	100	75
	NUP 2F 02	16	fl oz/a	16	fl oz/a	PREPOS	A	403	80	70	50	100	100
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	605	80	75	80	99	100
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	707	80	55	10	99	98
								Mean =	79	65	53	100	93
18	NUP 1G 05	12	fl oz/a	12	fl oz/a	PREPOS	A	208	75	40	50	100	60
	NUP 2F 02	16	fl oz/a	16	fl oz/a	PREPOS	A	404	85	100	50	90	100
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	604	85	93	90	99	100
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	801	70	50	60	92	88
								Mean =	79	71	63	95	87

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Weed Code									POAAN	SENGL	RANSS	HLESC	SENGL
Part Rated													
Rating Data Type									CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit									1-100	1-100	1-100	1-100	1-100
Rating Date									10/May/2005	10/May/2005	10/May/2005	17/May/2005	17/May/2005
Weed Stage									4-6"seed	12-24"	15"seed	6-8"seed	18"seed
Weed Density, Unit									75 YD2	11 YD2	<1 YD2	75 YD2	11 YD2
Assessed By									RD/WJG	RD/WJG	RD/WJG	RD/WJG	RD/WJG
Trt-Eval Interval									7 DA-A	7 DA-A	7 DA-A	14 DA-A	14 DA-A
Trt No.	Treatment Name	Rate	Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	1	2	3	4	5
19	Basis	0.0234	lb ai/a	0.5	oz/a	SPRBD	A	209	25	30	30	70	60
	2,4-D Ester	0.5	lb ae/a	1	pt/a	SPRBD	A	405	35	36*	35	80	100
	Crop Oil Conc	1	% v/v	1	% v/v	SPRBD	A	503	30	35	25	70	85
	Steadfast	0.035	lb ai/a	0.75	oz/a	POSPOS	B	807	45	70	60	80	98
	Atrazine	1	lb ai/a	1	qt/a	POSPOS	B						
	Callisto	0.0625	lb ai/a	2	fl oz/a	POSPOS	B						
	Crop Oil Conc	1	% v/v	1	% v/v	POSPOS	B						
	AMS	2.5	lb/a	2.5	lb/a	POSPOS	B						
								Mean =	34	43	38	75	86
20	Untreated							210	0	0	0	0	0
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	407	0	0	0	0	0
								508	0	0	0	0	0
								708	0	0	0	0	0
								Mean =	0	0	0	0	0

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Weed Code									ERICA	POAAN	ERICA	ERICA	ERICA
Part Rated									CONTRO	CONTRO	CONTRO	CONTRO	PLAQUA P
Rating Data Type									1-100	1-100	1-100	1-100	CONTRO
Rating Unit									17/May/2005	17/May/2005	24/May/2005	31/May/2005	30/Jun/2005
Rating Date									seedl-1"	4" seed	seedl-4"	1-4"	4-14"
Weed Stage									75 YD2	10 YD2	75 YD2	75 YD2	6 YD2
Weed Density, Unit									RD/WJG	RD/WJG	RD,VD,VM	WJG/RD	VD/VM
Assessed By									14 DA-A	14 DA-A	21 DA-A	28 DA-A	28 DA-A
Trt-Eval Interval													
Trt No.	Treatment Name	Rate	Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	6	7	8	9	10
1	NUP 3C 02	24	fl oz/a	24	fl oz/a	PREPOS	A	101	75	99	65	85	75
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	302	100	99	99	97	98
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	504	90	100	93	75	70
								702	100	98	99	90	95
								Mean =	91	99	89	87	85
2	NUP 10A 04	24	fl oz/a	24	fl oz/a	PREPOS	A	102	100	100	85	92	84*
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	401	100	100	99	99	100
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	505	100	100	93	90	80
								703	100	95	90	85	95
								Mean =	100	99	92	92	90
3	NUP 1G 05	24	fl oz/a	24	fl oz/a	PREPOS	A	103	100	100	98	93	85*
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	406	100	100	99	100	100
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	510	90	95	80	80	88
								802	100	98	99	92	90
								Mean =	98	98	94	91	91
4	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	104	100	90	98	99	92*
	NUP 2F 02	16	fl oz/a	16	fl oz/a	PREPOS	A	308	100	95	99	100	100
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	507	100	100	99	100	100
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	709	98	95	99	100	98
								Mean =	100	95	99	100	97
5	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	105	100	95	98	98	92*
	NUP 12J 04	16	fl oz/a	16	fl oz/a	PREPOS	A	305	100	92	99	93	100
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	603	100	95	98	85	97
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	705	100	100	99	90	100
								Mean =	100	96	99	92	97
6	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	106	100	100	95	95	90*
	NUP 12K 04	16	fl oz/a	16	fl oz/a	PREPOS	A	303	100	70	99	100	100
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	501	100	95	99	100	98
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	810	100	75	99	97	95
								Mean =	100	85	98	98	96
7	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	107	100	90	98	98	90
	NUP 12C 04	16	fl oz/a	16	fl oz/a	PREPOS	A	402	100	100	99	100	100
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	506	100	90	99	85	95
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	804	100	90	99	94	93
								Mean =	100	93	99	94	95
8	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	108	100	100	98	92	90
	NUP 1A 05	16	fl oz/a	16	fl oz/a	PREPOS	A	408	100	100	99	100	100
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	609	100	90	99	100	98
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	809	100	78	99	94	93
								Mean =	100	92	99	97	95
9	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	109	100	90	98	60	40
	NUP 1B 05	16	fl oz/a	16	fl oz/a	PREPOS	A	304	100	98	99	99	97
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	606	100	90	95	90	93
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	701	100	92	99	98	100
								Mean =	100	93	98	87	83

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Weed Code									ERICA	POAAN	ERICA	ERICA	ERICA
Part Rated									CONTRO	CONTRO	CONTRO	CONTRO	PLAQUA P
Rating Data Type									1-100	1-100	1-100	1-100	CONTRO
Rating Unit									17/May/2005	17/May/2005	24/May/2005	31/May/2005	30/Jun/2005
Rating Date									seedl-1"	4" seed	seedl-4"	1-4"	4-14"
Weed Stage									75 YD2	10 YD2	75 YD2	75 YD2	6 YD2
Weed Density, Unit									RD/WJG	RD/WJG	RD,VD,VM	WJG/RD	VD/VM
Assessed By									14 DA-A	14 DA-A	21 DA-A	28 DA-A	28 DA-A
Trt-Eval Interval													
Trt No.	Treatment Name	Rate	Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	6	7	8	9	10
10	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	110	100	100	85	98	80
	NUP 12D 04	16	fl oz/a	16	fl oz/a	PREPOS	A	307	99	98	99	98	100
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	602	100	100	99	100	100
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	808	100	82	99	99	100
	Mean =									100	95	96	99
11	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	201	100	98	99	99	93
	NUP 1C 05	16	fl oz/a	16	fl oz/a	PREPOS	A	306	100	88	99	98	95
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	610	100	95	99	95	95
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	806	100	75	85	93	90
	Mean =									100	89	96	96
12	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	202	100	88	99	97	97
	NUP 11D 01	16	fl oz/a	16	fl oz/a	PREPOS	A	409	100	80	99	99	100
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	601	100	75	99	100	97
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	706	100	85	99	100	100
	Mean =									100	82	99	99
13	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	203	90	75	90	98	90
	NUP 11B 01	16	fl oz/a	16	fl oz/a	PREPOS	A	410	100	100	99	99	100
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	509	85	95	95	65	93
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	805	100	85	98	98	95
	Mean =									94	89	96	90
14	NUP 12A 04	12	fl oz/a	12	fl oz/a	PREPOS	A	204	100	95	78	90	75
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	310	92	99	78	70	75
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	502	95	90	85	60	75
								710	93	100	90	75	80
	Mean =									95	96	83	74
15	NUP 12E 04	24	fl oz/a	24	fl oz/a	PREPOS	A	205	100	100	95	98	95
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	301	100	88	99	95	97
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	607	100	100	95	95	98
								803	100	97	95	95	95
	Mean =									100	96	96	96
16	NUP 3E 04	24	fl oz/a	24	fl oz/a	PREPOS	A	206	100	100	98	98	97
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	309	85	97	90	85	80
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	608	100	100	95	90	100
								704	100	100	98	80	93
	Mean =									96	99	95	88
17	NUP 10A 04	12	fl oz/a	12	fl oz/a	PREPOS	A	207	100	100	99	98	95
	NUP 2F 02	16	fl oz/a	16	fl oz/a	PREPOS	A	403	100	100	99	100	100
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	605	100	95	99	100	100
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	707	100	90	99	100	100
	Mean =									100	96	99	100
18	NUP 1G 05	12	fl oz/a	12	fl oz/a	PREPOS	A	208	100	95	99	99	98
	NUP 2F 02	16	fl oz/a	16	fl oz/a	PREPOS	A	404	100	100	99	100	100
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	604	100	95	97	90	90
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	801	100	80	99	95	100
	Mean =									100	93	99	96

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Weed Code									ERICA	POAAN	ERICA	ERICA	ERICA
Part Rated													PLAQUA P
Rating Data Type									CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit									1-100	1-100	1-100	1-100	1-100
Rating Date									17/May/2005	17/May/2005	24/May/2005	31/May/2005	30/Jun/2005
Weed Stage									seedl-1"	4" seed	seedl-4"	1-4"	4-14"
Weed Density, Unit									75 YD2	10 YD2	75 YD2	75 YD2	6 YD2
Assessed By									RD/WJG	RD/WJG	RD,VD,VM	WJG/RD	VD/VM
Trt-Eval Interval									14 DA-A	14 DA-A	21 DA-A	28 DA-A	28 DA-A
Trt No.	Treatment Name	Rate	Product Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	6	7	8	9	10
19	Basis	0.0234	lb ai/a	0.5	oz/a	SPRBD	A	209	100	60	99	100	100
	2,4-D Ester	0.5	lb ae/a	1	pt/a	SPRBD	A	405	100	100	99	100	100
	Crop Oil Conc	1	% v/v	1	% v/v	SPRBD	A	503	100	70	99	100	100
	Steadfast	0.035	lb ai/a	0.75	oz/a	POSPOS	B	807	100	60	99	100	100
	Atrazine	1	lb ai/a	1	qt/a	POSPOS	B						
	Callisto	0.0625	lb ai/a	2	fl oz/a	POSPOS	B						
	Crop Oil Conc	1	% v/v	1	% v/v	POSPOS	B						
	AMS	2.5	lb/a	2.5	lb/a	POSPOS	B						
								Mean =	100	73	99	100	100
20	Untreated							210	0	0	0	0	0
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	407	0	0	0	0	0
								508	0	0	0	0	0
								708	0	0	0	0	0
								Mean =	0	0	0	0	0

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Weed Code									ERICA
Part Rated									PLAQUA P
Rating Data Type									CONTRO
Rating Unit									1-100
Rating Date									14/Jul/2005
Weed Stage									2-12"
Weed Density, Unit									9 M2
Assessed By									WGJ/EOTT
Trt-Eval Interval									
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	11
10	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	110	75
	NUP 12D 04	16	fl oz/a	16	fl oz/a	PREPOS	A	307	98
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	602	100
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	808	95
								Mean =	92
11	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	201	88
	NUP 1C 05	16	fl oz/a	16	fl oz/a	PREPOS	A	306	95
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	610	70
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	806	85
								Mean =	85
12	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	202	98
	NUP 11D 01	16	fl oz/a	16	fl oz/a	PREPOS	A	409	100
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	601	88
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	706	100
								Mean =	97
13	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	203	90
	NUP 11B 01	16	fl oz/a	16	fl oz/a	PREPOS	A	410	100
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	509	50
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	805	60
								Mean =	75
14	NUP 12A 04	12	fl oz/a	12	fl oz/a	PREPOS	A	204	70
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	310	55
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	502	50
								710	70
								Mean =	61
15	NUP 12E 04	24	fl oz/a	24	fl oz/a	PREPOS	A	205	87
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	301	95
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	607	90
								803	90
								Mean =	91
16	NUP 3E 04	24	fl oz/a	24	fl oz/a	PREPOS	A	206	90
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	309	65
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	608	93
								704	90
								Mean =	85
17	NUP 10A 04	12	fl oz/a	12	fl oz/a	PREPOS	A	207	90
	NUP 2F 02	16	fl oz/a	16	fl oz/a	PREPOS	A	403	100
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	605	92
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	707	100
								Mean =	96
18	NUP 1G 05	12	fl oz/a	12	fl oz/a	PREPOS	A	208	98
	NUP 2F 02	16	fl oz/a	16	fl oz/a	PREPOS	A	404	100
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A	604	60
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A	801	100
								Mean =	90

Purdue University

Glyphosate Resistant Horseweed Study - Corn

Trial ID: 05-SEPAC-CORN-GRH
Location: SEPAC

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

Weed Code								POAAN	SENGL	RANSS	HLESC	SENGL	ERICA
Part Rated													
Rating Data Type								CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit								1-100	1-100	1-100	1-100	1-100	1-100
Rating Date								10/May/2005	10/May/2005	10/May/2005	17/May/2005	17/May/2005	17/May/2005
Weed Stage								4-6"seed	12-24"	15"seed	6-8"seed	18"seed	seedl-1"
Weed Density, Unit								75 YD2	11 YD2	<1 YD2	75 YD2	11 YD2	75 YD2
Assessed By								RD/WJG	RD/WJG	RD/WJG	RD/WJG	RD/WJG	RD/WJG
Trt-Eval Interval								7 DA-A	7 DA-A	7 DA-A	14 DA-A	14 DA-A	14 DA-A
Trt No.	Treatment Name	Rate	Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	1	2	3	4	5	6
1	NUP 3C 02	24	fl oz/a	24	fl oz/a	PREPOS	A	86 a	81 ab	72 a	100 a	99 a	91 a
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A						
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A						
2	NUP 10A 04	24	fl oz/a	24	fl oz/a	PREPOS	A	81 ab	69 a-e	64 a	100 a	99 a	100 a
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A						
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A						
3	NUP 1G 05	24	fl oz/a	24	fl oz/a	PREPOS	A	78 abc	61 a-f	55 a	100 a	98 a	98 a
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A						
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A						
4	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	73 bcd	56 b-f	31 a	97 a	87 ab	100 a
	NUP 2F 02	16	fl oz/a	16	fl oz/a	PREPOS	A						
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A						
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A						
5	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	79 abc	66 a-e	58 a	98 a	88 ab	100 a
	NUP 12J 04	16	fl oz/a	16	fl oz/a	PREPOS	A						
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A						
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A						
6	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	72 bcd	46 def	40 a	92 a	71 b	100 a
	NUP 12K 04	16	fl oz/a	16	fl oz/a	PREPOS	A						
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A						
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A						
7	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	78 abc	84 ab	54 a	75 a	97 a	100 a
	NUP 12C 04	16	fl oz/a	16	fl oz/a	PREPOS	A						
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A						
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A						
8	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	78 abc	86 a	68 a	98 a	97 a	100 a
	NUP 1A 05	16	fl oz/a	16	fl oz/a	PREPOS	A						
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A						
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A						
9	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	81 ab	70 a-e	68 a	99 a	91 a	100 a
	NUP 1B 05	16	fl oz/a	16	fl oz/a	PREPOS	A						
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A						
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A						
10	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	85 ab	84 ab	74 a	98 a	96 a	100 a
	NUP 12D 04	16	fl oz/a	16	fl oz/a	PREPOS	A						
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A						
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A						
11	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	72 bcd	80 abc	71 a	97 a	95 a	100 a
	NUP 1C 05	16	fl oz/a	16	fl oz/a	PREPOS	A						
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A						
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A						

Purdue University

Weed Code							POAAN	SENGL	RANSS	HLESC	SENGL	ERICA	
Part Rated													
Rating Data Type							CONTRO						
Rating Unit							1-100	1-100	1-100	1-100	1-100	1-100	1-100
Rating Date							10/May/2005	10/May/2005	10/May/2005	17/May/2005	17/May/2005	17/May/2005	17/May/2005
Weed Stage							4-6"seed	12-24"	15"seed	6-8"seed	18"seed	seedl-1"	
Weed Density, Unit							75 YD2	11 YD2	<1 YD2	75 YD2	11 YD2	75 YD2	
Assessed By							RD/WJG	RD/WJG	RD/WJG	RD/WJG	RD/WJG	RD/WJG	
Trt-Eval Interval							7 DA-A	7 DA-A	7 DA-A	14 DA-A	14 DA-A	14 DA-A	
Trt No.	Treatment Name	Rate	Product Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	1	2	3	4	5	6
12	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	63 d	51 c-f	58 a	97 a	71 b	100 a
	NUP 11D 01	16	fl oz/a	16	fl oz/a	PREPOS	A						
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A						
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A						
13	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	68 cd	34 f	53 a	94 a	71 b	94 a
	NUP 11B 01	16	fl oz/a	16	fl oz/a	PREPOS	A						
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A						
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A						
14	NUP 12A 04	12	fl oz/a	12	fl oz/a	PREPOS	A	73 bcd	74 a-d	61 a	98 a	96 a	95 a
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A						
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A						
15	NUP 12E 04	24	fl oz/a	24	fl oz/a	PREPOS	A	76 a-d	61 a-f	64 a	99 a	92 a	100 a
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A						
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A						
16	NUP 3E 04	24	fl oz/a	24	fl oz/a	PREPOS	A	73 a-d	45 def	45 a	99 a	81 ab	96 a
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A						
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A						
17	NUP 10A 04	12	fl oz/a	12	fl oz/a	PREPOS	A	79 abc	65 a-e	53 a	100 a	93 a	100 a
	NUP 2F 02	16	fl oz/a	16	fl oz/a	PREPOS	A						
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A						
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A						
18	NUP 1G 05	12	fl oz/a	12	fl oz/a	PREPOS	A	79 abc	71 a-e	63 a	95 a	87 ab	100 a
	NUP 2F 02	16	fl oz/a	16	fl oz/a	PREPOS	A						
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A						
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A						
19	Basis	0.0234	lb ai/a	0.5	oz/a	SPRBD	A	34 e	43 ef	38 a	75 a	86 ab	100 a
	2,4-D Ester	0.5	lb ae/a	1	pt/a	SPRBD	A						
	Crop Oil Conc	1	% v/v	1	% v/v	SPRBD	A						
	Steadfast	0.035	lb ai/a	0.75	oz/a	POSPOS	B						
	Atrazine	1	lb ai/a	1	qt/a	POSPOS	B						
	Callisto	0.0625	lb ai/a	2	fl oz/a	POSPOS	B						
	Crop Oil Conc	1	% v/v	1	% v/v	POSPOS	B						
	AMS	2.5	lb/a	2.5	lb/a	POSPOS	B						
20	Untreated							0	0	0	0	0	0
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A						
LSD (P=.05)								13.3	29.0	30.2	16.7	18.8	5.6
Standard Deviation								9.4	20.5	21.4	11.8	13.3	4.0
CV								12.68	31.84	37.43	12.39	14.88	4.01
Grand Mean								73.95	64.46	57.13	95.18	89.16	98.58
Bartlett's X2								24.358	12.295	15.374	156.395	63.092	25.157
P(Bartlett's X2)								0.144	0.832	0.636	0.001*	0.001*	0.001*
Replicate F								10.499	3.057	2.381	1.502	10.227	0.636
Replicate Prob(F)								0.0001	0.0361	0.0797	0.2243	0.0001	0.5951
Treatment F								5.734	2.267	1.266	1.613	2.012	1.749
Treatment Prob(F)								0.0001	0.0109	0.2467	0.0898	0.0249	0.0586

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.

Purdue University

Weed Code	POAAN	SENGL	RANSS	HLESC	SENGL	ERICA
Part Rated						
Rating Data Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	1-100	1-100	1-100	1-100	1-100	1-100
Rating Date	10/May/2005	10/May/2005	10/May/2005	17/May/2005	17/May/2005	17/May/2005
Weed Stage	4-6"seed	12-24"	15"seed	6-8"seed	18"seed	seedl-1"
Weed Density, Unit	75 YD2	11 YD2	<1 YD2	75 YD2	11 YD2	75 YD2
Assessed By	RD/WJG	RD/WJG	RD/WJG	RD/WJG	RD/WJG	RD/WJG
Trt-Eval Interval	7 DA-A	7 DA-A	7 DA-A	14 DA-A	14 DA-A	14 DA-A

Untreated treatment(s) 20 excluded from analysis.

Purdue University

Weed Code							POAAN	ERICA	ERICA	ERICA	ERICA	
Part Rated										PLAQUA P	PLAQUA P	
Rating Data Type							CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	
Rating Unit							1-100	1-100	1-100	1-100	1-100	
Rating Date							17/May/2005	24/May/2005	31/May/2005	30/Jun/2005	14/Jul/2005	
Weed Stage							4" seed	seedl-4"	1-4"	4-14"	2-12"	
Weed Density, Unit							10 YD2	75 YD2	75 YD2	6 YD2	9 M2	
Assessed By							RD/WJG	RD,VD,VM	WJG/RD	VD/VM	WGJ/EOTT	
Trt-Eval Interval							14 DA-A	21 DA-A	28 DA-A	28 DA-A		
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	7	8	9	10	11
1	NUP 3C 02	24	fl oz/a	24	fl oz/a	PREPOS	A	99 a	89 bc	87 c	85 bcd	66 ef
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A					
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A					
2	NUP 10A 04	24	fl oz/a	24	fl oz/a	PREPOS	A	99 a	92 ab	92 abc	90 abc	81 a-f
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A					
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A					
3	NUP 1G 05	24	fl oz/a	24	fl oz/a	PREPOS	A	98 a	94 ab	91 abc	91 abc	70 def
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A					
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A					
4	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	95 ab	99 a	100 a	97 a	97 ab
	NUP 2F 02	16	fl oz/a	16	fl oz/a	PREPOS	A					
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A					
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A					
5	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	96 ab	99 a	92 abc	97 a	91 abc
	NUP 12J 04	16	fl oz/a	16	fl oz/a	PREPOS	A					
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A					
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A					
6	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	85 bc	98 a	98 ab	96 ab	91 a-d
	NUP 12K 04	16	fl oz/a	16	fl oz/a	PREPOS	A					
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A					
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A					
7	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	93 abc	99 a	94 abc	95 ab	89 a-d
	NUP 12C 04	16	fl oz/a	16	fl oz/a	PREPOS	A					
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A					
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A					
8	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	92 abc	99 a	97 abc	95 ab	83 a-e
	NUP 1A 05	16	fl oz/a	16	fl oz/a	PREPOS	A					
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A					
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A					
9	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	93 abc	98 a	87 c	83 cd	76 b-f
	NUP 1B 05	16	fl oz/a	16	fl oz/a	PREPOS	A					
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A					
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A					
10	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	95 ab	96 ab	99 a	95 ab	92 abc
	NUP 12D 04	16	fl oz/a	16	fl oz/a	PREPOS	A					
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A					
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A					
11	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	89 abc	96 ab	96 abc	93 abc	85 a-e
	NUP 1C 05	16	fl oz/a	16	fl oz/a	PREPOS	A					
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A					
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A					
12	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	82 cd	99 a	99 a	99 a	97 ab
	NUP 11D 01	16	fl oz/a	16	fl oz/a	PREPOS	A					
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A					
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A					

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Weed Code							POAAN	ERICA	ERICA	ERICA	ERICA	
Part Rated							CONTRO	CONTRO	CONTRO	ERICA	ERICA	
Rating Data Type							1-100	1-100	1-100	PLAQUA P	PLAQUA P	
Rating Unit							17/May/2005	24/May/2005	31/May/2005	CONTRO	CONTRO	
Rating Date							4" seed	seedl-4"	1-4"	1-100	1-100	
Weed Stage							10 YD2	75 YD2	75 YD2	30/Jun/2005	14/Jul/2005	
Weed Density, Unit Assessed By							RD/WJG	RD,VD,VM	WJG/RD	4-14"	2-12"	
Trt-Eval Interval							14 DA-A	21 DA-A	28 DA-A	6 YD2	9 M2	
							WD/VM	WD/VM	28 DA-A	WGJ/EOTT		
Trt No.	Treatment Name	Rate	Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	7	8	9	10	11
13	NUP 3C 02	12	fl oz/a	12	fl oz/a	PREPOS	A	89 abc	96 ab	90 abc	95 ab	75 c-f
	NUP 11B 01	16	fl oz/a	16	fl oz/a	PREPOS	A					
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A					
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A					
14	NUP 12A 04	12	fl oz/a	12	fl oz/a	PREPOS	A	96 a	83 c	74 d	76 d	61 f
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A					
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A					
15	NUP 12E 04	24	fl oz/a	24	fl oz/a	PREPOS	A	96 a	96 ab	96 abc	96 ab	91 a-d
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A					
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A					
16	NUP 3E 04	24	fl oz/a	24	fl oz/a	PREPOS	A	99 a	95 ab	88 bc	93 abc	85 a-e
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A					
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A					
17	NUP 10A 04	12	fl oz/a	12	fl oz/a	PREPOS	A	96 a	99 a	100 a	99 a	96 abc
	NUP 2F 02	16	fl oz/a	16	fl oz/a	PREPOS	A					
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A					
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A					
18	NUP 1G 05	12	fl oz/a	12	fl oz/a	PREPOS	A	93 abc	99 a	96 abc	97 a	90 a-d
	NUP 2F 02	16	fl oz/a	16	fl oz/a	PREPOS	A					
	AMS	2.55	lb/a	17	lb/100 gal	PREPOS	A					
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A					
19	Basis	0.0234	lb ai/a	0.5	oz/a	SPRBD	A	73 d	99 a	100 a	100 a	100 a
	2,4-D Ester	0.5	lb ae/a	1	pt/a	SPRBD	A					
	Crop Oil Conc	1	% v/v	1	% v/v	SPRBD	A					
	Steadfast	0.035	lb ai/a	0.75	oz/a	POSPOS	B					
	Atrazine	1	lb ai/a	1	qt/a	POSPOS	B					
	Callisto	0.0625	lb ai/a	2	fl oz/a	POSPOS	B					
	Crop Oil Conc	1	% v/v	1	% v/v	POSPOS	B					
	AMS	2.5	lb/a	2.5	lb/a	POSPOS	B					
20	Untreated							0	0	0	0	0
	Dual II Magnum	0.71	lb ai/a	0.75	pt/a	PREPOS	A					
LSD (P=.05)								11.0	7.4	10.5	11.8	20.9
Standard Deviation								7.8	5.3	7.4	8.3	14.6
CV								8.41	5.49	7.94	8.9	17.25
Grand Mean								92.42	95.86	93.34	93.11	84.82
Bartlett's X2								46.872	76.309	68.225	66.312	34.268
P(Bartlett's X2)								0.001*	0.001*	0.001*	0.001*	0.008*
Replicate F								2.735	2.285	2.876	5.125	4.942
Replicate Prob(F)								0.0525	0.0892	0.0444	0.0037	0.0045
Treatment F								2.996	2.541	3.063	2.179	2.239
Treatment Prob(F)								0.0010	0.0043	0.0008	0.0160	0.0132

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.
 Untreated treatment(s) 20 excluded from analysis.

Purdue University

Glyphosate Resistant Horseweed Study - Corn

Trial ID: 05-SEPAC-CORN-GRH
Location: SEPAC

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

Trial Comments

SEPAC had a lot of rain in early May and subsequently very wet and cool conditions after planting. The corn emergence was very poor so it was replanted on June 7th. However, the replanting experienced very dry conditions coupled with bird feeding damage and stands remained poor. Because of poor and un-uniform crop stands, no crop injury ratings were collected. Also note: plots 102-106 were not rated on the last rating date due to a spray misapplication on May 31.