

Purdue University

The effect of cumulative stresses on corn yield

Trial ID: 06S-THP-CTC-04
Location: West Lafayette, IN

Study Dir.: Todd Cowan
Investigator: Dr. William G. Johnson

GENERAL TRIAL INFORMATION

Study Director: Todd Cowan
Investigator: Dr. William G. Johnson
Affiliation: Purdue University
Postal Code: 47907
Title: Associate Professor

TRIAL LOCATION

City: Lafayette
State/Prov.: IN
Postal Code: 47909-9049
Country: USA
Directions: field 2C

COOPERATOR/LANDOWNER

Cooperator: Throckmorton-Purdue Ag Center (TPAC)
Org: Purdue University
Address 1: 8343 US 231 South
City: Lafayette
State/Prov: IN
Postal Code: 47909-9049
Country: USA
Phone No: (765) 538-3422
Fax No: (765) 538-3423

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

Objective: The objective of this experiment is to evaluate varying responses of conventional corn to postemergence herbicides 3-4 days after simulated glyphosate drift.

CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	ABUTH	Velvetleaf	Abutilon theophrasti

Crop 1: ZEAMX CORN, FIELD **Variety:** Pioneer34A15
Planting Date: 28/Apr/2006 **Planting Method:** DIRECT DRILLED
Rate: 30800 S/A **Depth:** 2 IN
Row Spacing: 30 IN

Emergence Date: 9/May/2006

SITE AND DESIGN

Plot Width, Unit: 10 FT **Plot Length, Unit:** 30 FT **Reps:** 4
Site Type: FIELD
Tillage Type: CONVENTIONAL-TILL **Study Design:** RANDOMIZED COMPLETE BLOCK

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.	24/Apr/2006	28% UAN	28	LB/GAL	L	51	GPA
2.	24/Apr/2006	Tilled					

SOIL DESCRIPTION

% OM: 3.0
pH: 6.3 **Soil Name:** Toronto-Millbrook
CEC: 12.6

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit
Potassium	146	ppm
Magnesium	335	ppm
Calcium	1400	ppm
Phosphorus	28	ppm

Closest Weather Station: Located by the field **Distance:** 150 **Unit:** YD

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APPLICATION DESCRIPTION

	A	B
Application Date:	5/Jun/2006	9/Jun/2006
Time of Day:	5:30 PM	6:30 AM
Application Method:	SPRAY	SPRAY
Application Timing:	PostA	POSTB
Applic. Placement:	BROFOL	BROFOL
Air Temp., Unit:	85 F	67 F
% Relative Humidity:	35	80
Wind Velocity, Unit:	4 MPH	CALM
Dew Presence (Y/N):	N	Y
Water Hardness:	Very Hard	Very Hard
Soil Temp., Unit:	80 F	
Soil Moisture:	Dry	DRY
% Cloud Cover:	0	0

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	ZEAMX	ZEAMX
Stage Scale:	V5	V5
Height, Unit:	8 IN	9 IN

WEED STAGE AT EACH APPLICATION

	A	B
Weed 1 Code, Stage:	ABUTH	ABUTH
Stage Scale:	2-3" 4lea	
Density, Unit:	1 YD2	

APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	CO2Backpa	CO2Backpa
Operating Pressure:	20	20
Nozzle Type:	XR	XR
Nozzle Size:	11002	11002
Nozzle Spacing, Unit:	15 IN	15 IN
Boom Length, Unit:	10 FT	10 FT
Boom Height, Unit:	15 IN	15 IN
Ground Speed, Unit:	3 MPH	3 MPH
Carrier:	Water	Water
Spray Volume, Unit:	15 GPA	15 GPA
Propellant:	CO2	CO2

Trial Comments

6-5-06: North half of plot sprayed with treatment 12. 708 got dusting of treatment 12.

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 Location: West Lafayette, IN

Study Dir.: Todd Cowan
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Crop Code								ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX
Rating Data Type								Stunting	CI	Stand Count	Stand Count	Height	Height
Rating Unit								%	%	Row 1	Row 2	Inch	Inch
Rating Date								16/Jun/2006	23/Jun/2006	7/Jul/2006	7/Jul/2006	7/Jul/2006	7/Jul/2006
Crop Stage								V6-V7	V7-V8	V10-V12	V10-V12	V10-V12	V10-V12
Footnote Number													
Assessed By								VMD	WGJ	VMD + GK	VMD + GK	AW + JM	AW + JM
ARM Action Codes													
# Subsamples, Dec.													
Tri	Treatment	Rate	Product	Product	Grow	Appl	Plot	1	2	3	4	5	6
No.	Name	Rate	Unit	Rate	Unit	Stg	Code						
1	Weed free check						101	0	0	16	13	84	80
							302	0	0	14	15	80	80
							506	0	0	15	15	76	48
							706	0	0	15	15	40	42
							Mean =	0	0	15	15	70	63
2	glyphosate (Weathermax)	10	G A/HA	0.253	FL OZ/A	POST	A 102	0	0	11	16	80	80
	AMS	0.0322	KG A/HA	0.02875	LB A/A	POST	A 304	5	5	15	15	86	78
							607	0	0	14	13	68	76
							804	0	0	15	14	72	76
							Mean =	1	1	14	15	77	78
3	glyphosate (Weathermax)	50	G A/HA	1.27	FL OZ/A	POST	A 103	20	15	13	15	72	76
	AMS	0.162	KG A/HA	0.1443	LB A/A	POST	A 404	15	30	15	14	78	72
							603	35	65	16	15	52	40
							806	20	25	15	13	56	52
							Mean =	23	34	15	14	65	60
4	glyphosate (Weathermax)	100	G A/HA	2.53	FL OZ/A	POST	A 104	50	50	13	16	56	58
	AMS	0.322	KG A/HA	0.2875	LB A/A	POST	A 301	.	.	.	.	.	.
							604	60	55	16	12	48	48
							707	50	60	15	15	40	48
							Mean =	53	55	15	14	48	51
5	glyphosate (Weathermax)	200	G A/HA	5.07	FL OZ/A	POST	A 105	65	70	13	15	40	44
	AMS	0.646	KG A/HA	0.5761	LB A/A	POST	A 402	70	70	15	14	38	36
							606	80	85	15	11	34	18
							704	75	75	13	14	42	42
							Mean =	73	75	14	14	39	35
6	DPX 79406	25	G A/HA	0.476	OZ/A	POST	B 106	0	0	14	15	80	82
	Distinct	200	G A/HA	4.08	OZ/A	POST	B 306	0	0	15	14	80	86
	NIS	0.250	% V/V	0.25	% V/V	POST	B 608	0	0	14	15	72	66
	UAN 28 %	1.250	% V/V	1.25	% V/V	POST	B 702	35	35	15	15	52	52
							Mean =	9	9	15	15	71	72
7	Option	35	G A/HA	1.43	OZ/A	POST	B 107	10	10	16	15	82	82
	Buctril	280	G A/HA	0.855	PT/A	POST	B 307	0	0	14	14	72	80
	atrazine	1000	G A/HA	1.78	PT/A	POST	B 502	0	0	15	13	74	74
	Rivet	1.75	L/HA	1.25	% V/V	POST	B 808	0	10	13	14	70	64
	UAN 28 %	2.500	L/HA	1.78	% V/V	POST	B						
							Mean =	3	5	15	14	75	75
8	glyphosate (Weathermax)	10	G A/HA	0.253	FL OZ/A	POST	A 108	0	0	13	13	78	86
	AMS	0.0322	KG A/HA	0.02875	LB A/A	POST	A 305	0	10	17	15	76	74
	DPX 79406	25	G A/HA	0.476	OZ/A	POST	B 505	0	0	16	14	76	68
	Distinct	200	G A/HA	4.08	OZ/A	POST	B 805	0	10	15	13	66	62
	NIS	0.250	% V/V	0.25	% V/V	POST	B						
	UAN 28 %	1.250	% V/V	1.25	% V/V	POST	B						
							Mean =	0	5	15	14	74	73

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Crop Code									ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX
Rating Data Type									Stunting	CI	Stand Count	Stand Count	Height	Height
Rating Unit									%	%	Row 1	Row 2	Inch	Inch
Rating Date									16/Jun/2006	23/Jun/2006	7/Jul/2006	7/Jul/2006	7/Jul/2006	7/Jul/2006
Crop Stage									V6-V7	V7-V8	V10-V12	V10-V12	V10-V12	V10-V12
Footnote Number														
Assessed By									VMD	WGJ	VMD + GK	VMD + GK	AW + JM	AW + JM
ARM Action Codes														
# Subsamples, Dec.														
Trt No.	Treatment Name	Rate	Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	1	2	3	4	5	6
9	glyphosate (Weathermax)	50	G A/HA	1.27	FL OZ/A	POST	A	201	15	20	10	4	74	76
	AMS	0.162	KG A/HA	0.1443	LB A/A	POST	A	406	15	15	14	14	78	80
	DPX 79406	25	G A/HA	0.476	OZ/A	POST	B	602	5	15	15	14	60	60
	Distinct	200	G A/HA	4.08	OZ/A	POST	B	801	15	15	15	14	58	62
	NIS	0.250	% V/V	0.25	% V/V	POST	B							
	UAN 28 %	1.250	% V/V	1.25	% V/V	POST	B							
								Mean =	13	16	14	12	68	70
10	glyphosate (Weathermax)	100	G A/HA	2.53	FL OZ/A	POST	A	202	65	50	15	14	54	56
	AMS	0.322	KG A/HA	0.2875	LB A/A	POST	A	303	60	60	15	14	58	54
	DPX 79406	25	G A/HA	0.476	OZ/A	POST	B	605	70	65	15	15	52	44
	Distinct	200	G A/HA	4.08	OZ/A	POST	B	703	90	90	11	13	32	48
	NIS	0.250	% V/V	0.25	% V/V	POST	B							
	UAN 28 %	1.250	% V/V	1.25	% V/V	POST	B							
								Mean =	71	66	14	14	49	51
11	glyphosate (Weathermax)	200	G A/HA	5.07	FL OZ/A	POST	A	203	80	80	16	7	20	32
	AMS	0.646	KG A/HA	0.5761	LB A/A	POST	A	405	80	80	13	14	36	40
	DPX 79406	25	G A/HA	0.476	OZ/A	POST	B	504	85	85	15	12	34	28
	Distinct	200	G A/HA	4.08	OZ/A	POST	B	802	90	90	14	14	18	30
	NIS	0.250	% V/V	0.25	% V/V	POST	B							
	UAN 28 %	1.250	% V/V	1.25	% V/V	POST	B							
								Mean =	84	84	15	12	27	33
12	glyphosate (Weathermax)	10	G A/HA	0.253	FL OZ/A	POST	A	204	5	5	12	14	84	80
	AMS	0.0322	KG A/HA	0.02875	LB A/A	POST	A	401	0	0	14	15	80	76
	Option	35	G A/HA	1.43	OZ/A	POST	B	508	0	0	15	15	70	68
	Buctril	280	G A/HA	0.855	PT/A	POST	B	708	5	0	16	15	64	66
	atrazine	1000	G A/HA	1.78	PT/A	POST	B							
	Rivet	1.75	L/HA	1.25	% V/V	POST	B							
	UAN 28 %	2.500	L/HA	1.78	% V/V	POST	B							
								Mean =	3	1	14	15	75	73
13	glyphosate (Weathermax)	50	G A/HA	1.27	FL OZ/A	POST	A	205	15	10	13	15	84	78
	AMS	0.162	KG A/HA	0.1443	LB A/A	POST	A	408	10	10	14	15	76	72
	Option	35	G A/HA	1.43	OZ/A	POST	B	601	10	10	14	14	66	68
	Buctril	280	G A/HA	0.855	PT/A	POST	B	705	50	45	14	14	44	40
	atrazine	1000	G A/HA	1.78	PT/A	POST	B							
	Rivet	1.75	L/HA	1.25	% V/V	POST	B							
	UAN 28 %	2.500	L/HA	1.78	% V/V	POST	B							
								Mean =	21	19	14	15	68	65
14	glyphosate (Weathermax)	100	G A/HA	2.53	FL OZ/A	POST	A	206	50	45	15	15	64	44
	AMS	0.322	KG A/HA	0.2875	LB A/A	POST	A	407	40	45	15	14	56	56
	Option	35	G A/HA	1.43	OZ/A	POST	B	501	50	60	16	14	42	54
	Buctril	280	G A/HA	0.855	PT/A	POST	B	803	70	50	15	14	38	44
	atrazine	1000	G A/HA	1.78	PT/A	POST	B							
	Rivet	1.75	L/HA	1.25	% V/V	POST	B							
	UAN 28 %	2.500	L/HA	1.78	% V/V	POST	B							
								Mean =	53	50	15	14	50	50
15	glyphosate (Weathermax)	200	G A/HA	5.07	FL OZ/A	POST	A	207	80	75	13	14	44	40
	AMS	0.646	KG A/HA	0.5761	LB A/A	POST	A	308	80	75	15	14	44	28
	Option	35	G A/HA	1.43	OZ/A	POST	B	503	70	75	14	15	32	36
	Buctril	280	G A/HA	0.855	PT/A	POST	B	807	80	80	9	14	42	30
	atrazine	1000	G A/HA	1.78	PT/A	POST	B							
	Rivet	1.75	L/HA	1.25	% V/V	POST	B							
	UAN 28 %	2.500	L/HA	1.78	% V/V	POST	B							
								Mean =	78	76	13	14	41	34

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Crop Code									ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX
Rating Data Type									Stunting	CI	Stand Count	Stand Count	Height	Height
Rating Unit									%	%	Row 1	Row 2	Inch	Inch
Rating Date									16/Jun/2006	23/Jun/2006	7/Jul/2006	7/Jul/2006	7/Jul/2006	7/Jul/2006
Crop Stage									V6-V7	V7-V8	V10-V12	V10-V12	V10-V12	V10-V12
Footnote Number														
Assessed By									VMD	WGJ	VMD + GK	VMD + GK	AW + JM	AW + JM
ARM Action Codes														
# Subsamples, Dec.														
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	1	2	3	4	5	6
16	Weed Free Check							208	0	0	11	14	82	84
								403	5	5	13	15	80	74
								507	0	0	15	14	74	70
								701	0	0	14	14	74	74
								Mean =	1	1	13	14	78	76

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Crop Code								ZEAMX							
Rating Data Type								Height							
Rating Unit								Inch							
Rating Date								7/Jul/2006							
Crop Stage								V10-V12							
Footnote Number															
Assessed By								AW + JM							
ARM Action Codes															
# Subsamples, Dec.															
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	7	8	9	10	11	12	13
1	Weed free check							101	84	84	80	80	80	78	80
								302	70	80	78	76	82	82	80
								506	70	72	78	72	68	72	76
								706	32	38	39	32	24	44	52
								Mean =	64	69	69	65	64	69	72
2	glyphosate (Weathermax) AMS	10	G A/HA	0.253	FL OZ/A	POST	A	102	80	80	91	76	80	80	74
		0.0322	KG A/HA	0.02875	LB A/A	POST	A	304	80	84	78	80	84	72	80
								607	74	66	65	66	66	66	68
								804	80	68	65	66	66	68	64
								Mean =	79	75	75	72	74	72	72
3	glyphosate (Weathermax) AMS	50	G A/HA	1.27	FL OZ/A	POST	A	103	70	74	78	70	72	72	68
		0.162	KG A/HA	0.1443	LB A/A	POST	A	404	70	60	65	70	76	76	72
								603	44	54	52	48	52	48	52
								806	54	54	52	52	56	54	48
								Mean =	60	61	62	60	64	63	60
4	glyphosate (Weathermax) AMS	100	G A/HA	2.53	FL OZ/A	POST	A	104	50	50	39	52	50	50	54
		0.322	KG A/HA	0.2875	LB A/A	POST	A	301	.	.	.	.	.	.	.
								604	40	46	39	44	40	40	36
								707	52	48	52	40	44	40	40
								Mean =	47	48	43	45	45	43	43
5	glyphosate (Weathermax) AMS	200	G A/HA	5.07	FL OZ/A	POST	A	105	30	36	39	38	36	48	32
		0.646	KG A/HA	0.5761	LB A/A	POST	A	402	40	40	26	40	40	52	48
								606	28	28	26	36	32	6	16
								704	32	42	39	38	32	36	32
								Mean =	33	37	33	38	35	36	32
6	DPX 79406 Distinct NIS UAN 28 %	25	G A/HA	0.476	OZ/A	POST	B	106	76	78	65	74	80	80	82
		200	G A/HA	4.08	OZ/A	POST	B	306	86	84	78	84	72	84	86
		0.250	% V/V	0.25	% V/V	POST	B	608	66	64	65	60	58	62	58
		1.250	% V/V	1.25	% V/V	POST	B	702	48	44	39	40	44	32	22
								Mean =	69	68	62	65	64	65	62
7	Option Buctril atrazine Rivet UAN 28 %	35	G A/HA	1.43	OZ/A	POST	B	107	74	68	78	74	86	74	76
		280	G A/HA	0.855	PT/A	POST	B	307	78	78	91	86	62	74	78
		1000	G A/HA	1.78	PT/A	POST	B	502	72	72	78	78	66	78	68
		1.75	L/HA	1.25	% V/V	POST	B	808	62	68	65	62	60	56	60
		2.500	L/HA	1.78	% V/V	POST	B								
						Mean =	72	72	78	75	69	71	71		
8	glyphosate (Weathermax) AMS DPX 79406 Distinct NIS UAN 28 %	10	G A/HA	0.253	FL OZ/A	POST	A	108	86	82	91	78	76	76	80
		0.0322	KG A/HA	0.02875	LB A/A	POST	A	305	76	80	78	78	78	78	78
		25	G A/HA	0.476	OZ/A	POST	B	505	76	72	78	68	72	74	78
		200	G A/HA	4.08	OZ/A	POST	B	805	62	72	65	64	62	68	64
		0.250	% V/V	0.25	% V/V	POST	B								
		1.250	% V/V	1.25	% V/V	POST	B								
						Mean =	75	77	78	72	72	74	75		
9	glyphosate (Weathermax) AMS DPX 79406 Distinct NIS UAN 28 %	50	G A/HA	1.27	FL OZ/A	POST	A	201	64	74	65	76	82	82	46
		0.162	KG A/HA	0.1443	LB A/A	POST	A	406	80	76	78	74	76	76	72
		25	G A/HA	0.476	OZ/A	POST	B	602	64	64	65	60	64	56	60
		200	G A/HA	4.08	OZ/A	POST	B	801	58	56	52	62	60	56	56
		0.250	% V/V	0.25	% V/V	POST	B								
		1.250	% V/V	1.25	% V/V	POST	B								
						Mean =	67	68	65	68	71	68	59		

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Crop Code									ZEAMX						
Rating Data Type									Height						
Rating Unit									Inch						
Rating Date									7/Jul/2006						
Crop Stage									V10-V12	V10-V12	V10-V12	V10-V12	V10-V12	V10-V12	V10-V12
Footnote Number															
Assessed By									AW + JM	AW + JM	AW + JM	AW + JM	AW + JM	AW + JM	AW + JM
ARM Action Codes															
# Subsamples, Dec.															
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	7	8	9	10	11	12	13
10	glyphosate (Weathermax)	100	G A/HA	2.53	FL OZ/A	POST	A	202	52	54	52	48	56	56	56
	AMS	0.322	KG A/HA	0.2875	LB A/A	POST	A	303	56	64	65	48	44	56	50
	DPX 79406	25	G A/HA	0.476	OZ/A	POST	B	605	44	32	52	28	28	36	32
	Distinct	200	G A/HA	4.08	OZ/A	POST	B	703	24	16	13	24	6	8	8
	NIS	0.250	% V/V	0.25	% V/V	POST	B								
	UAN 28 %	1.250	% V/V	1.25	% V/V	POST	B								
								Mean =	44	42	46	37	34	39	37
11	glyphosate (Weathermax)	200	G A/HA	5.07	FL OZ/A	POST	A	203	20	28	26	12	52	28	26
	AMS	0.646	KG A/HA	0.5761	LB A/A	POST	A	405	28	32	26	28	28	16	28
	DPX 79406	25	G A/HA	0.476	OZ/A	POST	B	504	28	22	13	22	22	18	24
	Distinct	200	G A/HA	4.08	OZ/A	POST	B	802	36	24	13	18	16	18	20
	NIS	0.250	% V/V	0.25	% V/V	POST	B								
	UAN 28 %	1.250	% V/V	1.25	% V/V	POST	B								
								Mean =	28	27	20	20	30	20	25
12	glyphosate (Weathermax)	10	G A/HA	0.253	FL OZ/A	POST	A	204	84	76	78	80	76	76	78
	AMS	0.0322	KG A/HA	0.02875	LB A/A	POST	A	401	82	82	78	82	80	80	76
	Option	35	G A/HA	1.43	OZ/A	POST	B	508	66	66	65	72	68	68	66
	Buctril	280	G A/HA	0.855	PT/A	POST	B	708	62	72	65	64	60	66	64
	atrazine	1000	G A/HA	1.78	PT/A	POST	B								
	Rivet	1.75	L/HA	1.25	% V/V	POST	B								
	UAN 28 %	2.500	L/HA	1.78	% V/V	POST	B								
								Mean =	74	74	72	75	71	73	71
13	glyphosate (Weathermax)	50	G A/HA	1.27	FL OZ/A	POST	A	205	72	78	91	76	74	74	80
	AMS	0.162	KG A/HA	0.1443	LB A/A	POST	A	408	72	70	65	72	76	76	78
	Option	35	G A/HA	1.43	OZ/A	POST	B	601	66	64	65	70	68	72	66
	Buctril	280	G A/HA	0.855	PT/A	POST	B	705	44	40	52	32	8	4	28
	atrazine	1000	G A/HA	1.78	PT/A	POST	B								
	Rivet	1.75	L/HA	1.25	% V/V	POST	B								
	UAN 28 %	2.500	L/HA	1.78	% V/V	POST	B								
								Mean =	64	63	68	63	57	57	63
14	glyphosate (Weathermax)	100	G A/HA	2.53	FL OZ/A	POST	A	206	68	66	65	52	66	54	56
	AMS	0.322	KG A/HA	0.2875	LB A/A	POST	A	407	62	60	52	48	48	60	54
	Option	35	G A/HA	1.43	OZ/A	POST	B	501	48	46	52	52	58	58	54
	Buctril	280	G A/HA	0.855	PT/A	POST	B	803	42	42	39	38	28	40	44
	atrazine	1000	G A/HA	1.78	PT/A	POST	B								
	Rivet	1.75	L/HA	1.25	% V/V	POST	B								
	UAN 28 %	2.500	L/HA	1.78	% V/V	POST	B								
								Mean =	55	54	52	48	50	53	52
15	glyphosate (Weathermax)	200	G A/HA	5.07	FL OZ/A	POST	A	207	42	44	26	40	24	36	32
	AMS	0.646	KG A/HA	0.5761	LB A/A	POST	A	308	26	30	39	40	32	44	42
	Option	35	G A/HA	1.43	OZ/A	POST	B	503	32	36	26	28	28	28	58
	Buctril	280	G A/HA	0.855	PT/A	POST	B	807	34	30	39	30	34	24	28
	atrazine	1000	G A/HA	1.78	PT/A	POST	B								
	Rivet	1.75	L/HA	1.25	% V/V	POST	B								
	UAN 28 %	2.500	L/HA	1.78	% V/V	POST	B								
								Mean =	34	35	33	35	30	33	40
16	Weed Free Check							208	82	78	91	80	84	84	86
								403	78	0	78	76	82	70	72
								507	68	72	65	74	74	66	66
								701	74	60	65	64	66	66	68
								Mean =	76	53	75	74	77	72	73

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Crop Code									ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX
Rating Data Type									Height	Crop Inj.	Dry Weight	# of Plants	YIELD	YIELD
Rating Unit									Inch	%	grams		LB	BU
Rating Date									7/Jul/2006	4/Aug/2006	9/Aug/2006	9/Aug/2006	9/Nov/2006	9/Nov/2006
Crop Stage									V10-V12	35%MilkL			Harvest	Harvest
Footnote Number													1	1
Assessed By									AW + JM	VMD + GK	JD	JD		
ARM Action Codes														TY2
# Subsamples, Dec.														1
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Plot	14	15	16	17	18	19
10	glyphosate (Weathermax)	100	G A/HA	2.53	FL OZ/A	POST	A	202	44	35	799	5	14	84.3
	AMS	0.322	KG A/HA	0.2875	LB A/A	POST	A	303	54	35	534	5	11	65.3
	DPX 79406	25	G A/HA	0.476	OZ/A	POST	B	605	28	30	487	6	18	112.7
	Distinct	200	G A/HA	4.08	OZ/A	POST	B	703	18	45	178	6	3	17.2
	NIS	0.250	% V/V	0.25	% V/V	POST	B							
	UAN 28 %	1.250	% V/V	1.25	% V/V	POST	B							
								Mean =	36	36	499	6	11	69.9
11	glyphosate (Weathermax)	200	G A/HA	5.07	FL OZ/A	POST	A	203	22	70	21	3	2	9.2
	AMS	0.646	KG A/HA	0.5761	LB A/A	POST	A	405	36	75	78	5	3	15.4
	DPX 79406	25	G A/HA	0.476	OZ/A	POST	B	504	0	80	37	6	2	14.8
	Distinct	200	G A/HA	4.08	OZ/A	POST	B	802	14	60	138	5	5	30.8
	NIS	0.250	% V/V	0.25	% V/V	POST	B							
	UAN 28 %	1.250	% V/V	1.25	% V/V	POST	B							
								Mean =	18	71	68	5	3	17.5
12	glyphosate (Weathermax)	10	G A/HA	0.253	FL OZ/A	POST	A	204	74	10	1037	5	28	173.0
	AMS	0.0322	KG A/HA	0.02875	LB A/A	POST	A	401	80	0	971	6	32	197.0
	Option	35	G A/HA	1.43	OZ/A	POST	B	508	68	0	1173	6	32	197.6
	Buctril	280	G A/HA	0.855	PT/A	POST	B	708	58	0	898	5	33	200.7
	atrazine	1000	G A/HA	1.78	PT/A	POST	B							
	Rivet	1.75	L/HA	1.25	% V/V	POST	B							
	UAN 28 %	2.500	L/HA	1.78	% V/V	POST	B							
								Mean =	70	3	1020	6	31	192.1
13	glyphosate (Weathermax)	50	G A/HA	1.27	FL OZ/A	POST	A	205	76	0	1072	6	28	174.8
	AMS	0.162	KG A/HA	0.1443	LB A/A	POST	A	408	72	0	1004	6	29	179.2
	Option	35	G A/HA	1.43	OZ/A	POST	B	601	72	0	1073	6	29	181.0
	Buctril	280	G A/HA	0.855	PT/A	POST	B	705	20	20	407	6	21	126.8
	atrazine	1000	G A/HA	1.78	PT/A	POST	B							
	Rivet	1.75	L/HA	1.25	% V/V	POST	B							
	UAN 28 %	2.500	L/HA	1.78	% V/V	POST	B							
								Mean =	60	5	889	6	27	165.5
14	glyphosate (Weathermax)	100	G A/HA	2.53	FL OZ/A	POST	A	206	62	25	843	6	20	122.5
	AMS	0.322	KG A/HA	0.2875	LB A/A	POST	A	407	44	20	434	5	16	98.5
	Option	35	G A/HA	1.43	OZ/A	POST	B	501	46	38	409	6	15	93.0
	Buctril	280	G A/HA	0.855	PT/A	POST	B	803	42	20	578	6	21	126.2
	atrazine	1000	G A/HA	1.78	PT/A	POST	B							
	Rivet	1.75	L/HA	1.25	% V/V	POST	B							
	UAN 28 %	2.500	L/HA	1.78	% V/V	POST	B							
								Mean =	49	26	566	6	18	110.0
15	glyphosate (Weathermax)	200	G A/HA	5.07	FL OZ/A	POST	A	207	34	50	204	6	4	22.2
	AMS	0.646	KG A/HA	0.5761	LB A/A	POST	A	308	36	50	150	5	3	16.6
	Option	35	G A/HA	1.43	OZ/A	POST	B	503	40	45	386	6	8	49.3
	Buctril	280	G A/HA	0.855	PT/A	POST	B	807	28	40	191	6	8	51.7
	atrazine	1000	G A/HA	1.78	PT/A	POST	B							
	Rivet	1.75	L/HA	1.25	% V/V	POST	B							
	UAN 28 %	2.500	L/HA	1.78	% V/V	POST	B							
								Mean =	35	46	233	6	6	34.9
16	Weed Free Check							208	88	0	1049	5	33	205.6
								403	70	0	1041	5	33	201.3
								507	68	0	1215	6	30	184.1
								701	64	0	897	6	30	187.2
								Mean =	73	0	1050	6	32	194.5

Column 18 Footnote: Harvested 2 rows by 25 feet

Column 19: TY2 = 6.156578*[18]

Footnote: Harvested 2 rows by 25 feet

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The effect of cumulative stresses on corn yield

Trial ID: 06S-THP-CTC-04
 Location: West Lafayette, IN

Study Dir.: Todd Cowan
 Investigator: Dr. William G. Johnson

Crop Code							ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	
Rating Data Type							Stunting	CI	Stand Count	Stand Count	Height	Height	Height	
Rating Unit							%	%	Row 1	Row 2	Inch	Inch	Inch	
Rating Date							16/Jun/2006	23/Jun/2006	7/Jul/2006	7/Jul/2006	7/Jul/2006	7/Jul/2006	7/Jul/2006	
Crop Stage							V6-V7	V7-V8	V10-V12	V10-V12	V10-V12	V10-V12	V10-V12	
Footnote Number														
Assessed By							VMD	WGJ	VMD + GK	VMD + GK	AW + JM	AW + JM	AW + JM	
ARM Action Codes														
# Subsamples, Dec.														
Trt No.	Treatment Name	Rate	Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	1	2	3	4	5	6	7
1	Weed free check							0	0	15	15	70	63	64
2	glyphosate (Weathermax) AMS	10 0.0322	G A/HA KG A/HA	0.253 0.02875	FL OZ/A LB A/A	POST POST	A A	1 ef	1 g	14 ab	15 a	77 ab	78 a	79 a
3	glyphosate (Weathermax) AMS	50 0.162	G A/HA KG A/HA	1.27 0.1443	FL OZ/A LB A/A	POST POST	A A	23 d	34 e	15 ab	14 ab	65 c	60 cd	60 de
4	glyphosate (Weathermax) AMS	100 0.322	G A/HA KG A/HA	2.53 0.2875	FL OZ/A LB A/A	POST POST	A A	53 c	55 cd	15 ab	14 ab	48 de	51 d	47 f
5	glyphosate (Weathermax) AMS	200 0.646	G A/HA KG A/HA	5.07 0.5761	FL OZ/A LB A/A	POST POST	A A	73 ab	75 ab	14 ab	14 abc	39 e	35 e	33 h
6	DPX 79406 Distinct NIS UAN 28 %	25 200 0.250 1.250	G A/HA G A/HA % V/V % V/V	0.476 4.08 0.25 1.25	OZ/A OZ/A % V/V % V/V	POST POST POST POST	B B B B	9 ef	9 fg	15 ab	15 a	71 abc	72 ab	69 a-d
7	Option Buctril atrazine Rivet UAN 28 %	35 280 1000 1.75 2.500	G A/HA G A/HA G A/HA L/HA L/HA	1.43 0.855 1.78 1.25 1.78	OZ/A PT/A PT/A % V/V % V/V	POST POST POST POST POST	B B B B B	3 ef	5 fg	15 ab	14 abc	75 ab	75 ab	72 abc
8	glyphosate (Weathermax) AMS DPX 79406 Distinct NIS UAN 28 %	10 0.0322 25 200 0.250 1.250	G A/HA KG A/HA G A/HA G A/HA % V/V % V/V	0.253 0.02875 0.476 4.08 0.25 1.25	FL OZ/A LB A/A OZ/A OZ/A % V/V % V/V	POST POST POST POST POST POST	A A B B B B	0 f	5 fg	15 a	14 abc	74 abc	73 ab	75 ab
9	glyphosate (Weathermax) AMS DPX 79406 Distinct NIS UAN 28 %	50 0.162 25 200 0.250 1.250	G A/HA KG A/HA G A/HA G A/HA % V/V % V/V	1.27 0.1443 0.476 4.08 0.25 1.25	FL OZ/A LB A/A OZ/A OZ/A % V/V % V/V	POST POST POST POST POST POST	A A B B B B	13 de	16 f	14 ab	12 c	68 bc	70 abc	67 bcd
10	glyphosate (Weathermax) AMS DPX 79406 Distinct NIS UAN 28 %	100 0.322 25 200 0.250 1.250	G A/HA KG A/HA G A/HA G A/HA % V/V % V/V	2.53 0.2875 0.476 4.08 0.25 1.25	FL OZ/A LB A/A OZ/A OZ/A % V/V % V/V	POST POST POST POST POST POST	A A B B B B	71 b	66 bc	14 ab	14 abc	49 d	51 d	44 fg
11	glyphosate (Weathermax) AMS DPX 79406 Distinct NIS UAN 28 %	200 0.646 25 200 0.250 1.250	G A/HA KG A/HA G A/HA G A/HA % V/V % V/V	5.07 0.5761 0.476 4.08 0.25 1.25	FL OZ/A LB A/A OZ/A OZ/A % V/V % V/V	POST POST POST POST POST POST	A A B B B B	84 a	84 a	15 ab	12 bc	27 f	33 e	28 h

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Crop Code							ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	
Rating Data Type							Stunting	CI	Stand Count	Stand Count	Height	Height	Height	
Rating Unit							%	%	Row 1	Row 2	Inch	Inch	Inch	
Rating Date							16/Jun/2006	23/Jun/2006	7/Jul/2006	7/Jul/2006	7/Jul/2006	7/Jul/2006	7/Jul/2006	
Crop Stage							V6-V7	V7-V8	V10-V12	V10-V12	V10-V12	V10-V12	V10-V12	
Footnote Number														
Assessed By							VMD	WGJ	VMD + GK	VMD + GK	AW + JM	AW + JM	AW + JM	
ARM Action Codes														
# Subsamples, Dec.														
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	1	2	3	4	5	6	7
12	glyphosate (Weathermax)	10	G A/HA	0.253	FL OZ/A	POST	A	3 ef	1 g	14 ab	15 a	75 ab	73 ab	74 abc
	AMS	0.0322	KG A/HA	0.02875	LB A/A	POST	A							
	Option	35	G A/HA	1.43	OZ/A	POST	B							
	Buctril	280	G A/HA	0.855	PT/A	POST	B							
	atrazine	1000	G A/HA	1.78	PT/A	POST	B							
	Rivet	1.75	L/HA	1.25	% V/V	POST	B							
	UAN 28 %	2.500	L/HA	1.78	% V/V	POST	B							
13	glyphosate (Weathermax)	50	G A/HA	1.27	FL OZ/A	POST	A	21 d	19 f	14 ab	15 a	68 bc	65 bc	64 cde
	AMS	0.162	KG A/HA	0.1443	LB A/A	POST	A							
	Option	35	G A/HA	1.43	OZ/A	POST	B							
	Buctril	280	G A/HA	0.855	PT/A	POST	B							
	atrazine	1000	G A/HA	1.78	PT/A	POST	B							
	Rivet	1.75	L/HA	1.25	% V/V	POST	B							
	UAN 28 %	2.500	L/HA	1.78	% V/V	POST	B							
14	glyphosate (Weathermax)	100	G A/HA	2.53	FL OZ/A	POST	A	53 c	50 d	15 a	14 ab	50 d	50 d	55 ef
	AMS	0.322	KG A/HA	0.2875	LB A/A	POST	A							
	Option	35	G A/HA	1.43	OZ/A	POST	B							
	Buctril	280	G A/HA	0.855	PT/A	POST	B							
	atrazine	1000	G A/HA	1.78	PT/A	POST	B							
	Rivet	1.75	L/HA	1.25	% V/V	POST	B							
	UAN 28 %	2.500	L/HA	1.78	% V/V	POST	B							
15	glyphosate (Weathermax)	200	G A/HA	5.07	FL OZ/A	POST	A	78 ab	76 ab	13 b	14 ab	41 de	34 e	34 gh
	AMS	0.646	KG A/HA	0.5761	LB A/A	POST	A							
	Option	35	G A/HA	1.43	OZ/A	POST	B							
	Buctril	280	G A/HA	0.855	PT/A	POST	B							
	atrazine	1000	G A/HA	1.78	PT/A	POST	B							
	Rivet	1.75	L/HA	1.25	% V/V	POST	B							
	UAN 28 %	2.500	L/HA	1.78	% V/V	POST	B							
16	Weed Free Check							1 ef	1 g	13 ab	14 ab	78 a	76 a	76 ab
LSD (P=.05)							12.1	14.0	2.1	2.6	9.6	10.7	11.3	
Standard Deviation							8.5	9.8	1.4	1.8	6.7	7.5	7.9	
CV							26.27	29.44	10.15	13.22	11.15	12.58	13.57	
Grand Mean							32.22	33.17	14.18	13.89	60.03	59.39	58.19	
Bartlett's X2							30.063	44.096	15.575	49.203	14.035	20.044	13.068	
P(Bartlett's X2)							0.005*	0.001*	0.34	0.001*	0.447	0.129	0.521	
Replicate F							4.025	3.246	4.472	0.642	17.729	12.497	10.282	
Replicate Prob(F)							0.0134	0.0315	0.0083	0.5925	0.0001	0.0001	0.0001	
Treatment F							58.145	41.212	0.962	1.138	23.866	18.845	18.928	
Treatment Prob(F)							0.0001	0.0001	0.5062	0.3565	0.0001	0.0001	0.0001	

Means followed by same letter do not significantly differ (P=.05, LSD)
 Untreated treatment(s) 1 excluded from analysis.

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Crop Code Rating Data Type Rating Unit Rating Date Crop Stage Footnote Number Assessed By ARM Action Codes # Subsamples, Dec.							ZEAMX Height Inch 7/Jul/2006 V10-V12 AW + JM	ZEAMX Crop Inj. % 4/Aug/2006 35%MilkL VMD + GK							
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	8	9	10	11	12	13	14	15
1	Weed free check							69	69	65	64	69	72	70	0
2	glyphosate (Weathermax) AMS	10 0.0322	G A/HA KG A/HA	0.253 0.02875	FL OZ/A LB A/A	POST POST	A A	75 a	75 ab	72 abc	74 a	72 ab	72 ab	73 a	1 g
3	glyphosate (Weathermax) AMS	50 0.162	G A/HA KG A/HA	1.27 0.1443	FL OZ/A LB A/A	POST POST	A A	61 a-d	62 bc	60 d	64 abc	63 abc	60 abc	62 abc	11 f
4	glyphosate (Weathermax) AMS	100 0.322	G A/HA KG A/HA	2.53 0.2875	FL OZ/A LB A/A	POST POST	A A	48 def	43 de	45 ef	45 de	43 def	43 def	51 bcd	30 de
5	glyphosate (Weathermax) AMS	200 0.646	G A/HA KG A/HA	5.07 0.5761	FL OZ/A LB A/A	POST POST	A A	37 efg	33 ef	38 efg	35 ef	36 fg	32 fg	34 ef	45 bc
6	DPX 79406 Distinct NIS UAN 28 %	25 200 0.250 1.250	G A/HA G A/HA % V/V % V/V	0.476 4.08 0.25 1.25	OZ/A OZ/A % V/V % V/V	POST POST POST POST	B B B B	68 abc	62 bc	65 bcd	64 abc	65 abc	62 abc	60 abc	3 fg
7	Option Buctril atrazine Rivet UAN 28 %	35 280 1000 1.75 2.500	G A/HA G A/HA G A/HA L/HA L/HA	1.43 0.855 1.78 1.25 1.78	OZ/A PT/A PT/A % V/V % V/V	POST POST POST POST POST	B B B B B	72 ab	78 a	75 a	69 ab	71 ab	71 ab	71 a	0 g
8	glyphosate (Weathermax) AMS DPX 79406 Distinct NIS UAN 28 %	10 0.0322 25 200 0.250 1.250	G A/HA KG A/HA G A/HA G A/HA % V/V % V/V	0.253 0.02875 0.476 4.08 0.25 1.25	FL OZ/A LB A/A OZ/A OZ/A % V/V % V/V	POST POST POST POST POST POST	A A B B B B	77 a	78 a	72 abc	72 a	74 a	75 a	73 a	0 g
9	glyphosate (Weathermax) AMS DPX 79406 Distinct NIS UAN 28 %	50 0.162 25 200 0.250 1.250	G A/HA KG A/HA G A/HA G A/HA % V/V % V/V	1.27 0.1443 0.476 4.08 0.25 1.25	FL OZ/A LB A/A OZ/A OZ/A % V/V % V/V	POST POST POST POST POST POST	A A B B B B	68 abc	65 abc	68 a-d	71 ab	68 abc	59 bcd	66 ab	9 fg
10	glyphosate (Weathermax) AMS DPX 79406 Distinct NIS UAN 28 %	100 0.322 25 200 0.250 1.250	G A/HA KG A/HA G A/HA G A/HA % V/V % V/V	2.53 0.2875 0.476 4.08 0.25 1.25	FL OZ/A LB A/A OZ/A OZ/A % V/V % V/V	POST POST POST POST POST POST	A A B B B B	42 efg	46 de	37 fg	34 ef	39 ef	37 fg	36 de	36 cd
11	glyphosate (Weathermax) AMS DPX 79406 Distinct NIS UAN 28 %	200 0.646 25 200 0.250 1.250	G A/HA KG A/HA G A/HA G A/HA % V/V % V/V	5.07 0.5761 0.476 4.08 0.25 1.25	FL OZ/A LB A/A OZ/A OZ/A % V/V % V/V	POST POST POST POST POST POST	A A B B B B	27 g	20 f	20 h	30 f	20 g	25 g	18 f	71 a
12	glyphosate (Weathermax) AMS Option Buctril atrazine Rivet UAN 28 %	10 0.0322 35 280 1000 1.75 2.500	G A/HA KG A/HA G A/HA G A/HA G A/HA L/HA L/HA	0.253 0.02875 1.43 0.855 1.78 1.25 1.78	FL OZ/A LB A/A OZ/A PT/A PT/A % V/V % V/V	POST POST POST POST POST POST POST	A A B B B B B	74 a	72 ab	75 ab	71 ab	73 ab	71 ab	70 a	3 fg

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Crop Code							ZEAMX								
Rating Data Type							Height	ZEAMX							
Rating Unit							Inch	Crop Inj.							
Rating Date							7/Jul/2006	%							
Crop Stage							V10-V12	V10-V12	V10-V12	V10-V12	V10-V12	V10-V12	V10-V12	V10-V12	4/Aug/2006
Footnote Number															35%MilkL
Assessed By							AW + JM	AW + JM	AW + JM	AW + JM	AW + JM	AW + JM	AW + JM	AW + JM	VMD + GK
ARM Action Codes															
# Subsamples, Dec.															
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	8	9	10	11	12	13	14	15
13	glyphosate (Weathermax)	50	G A/HA	1.27	FL OZ/A	POST	A	63 a-d	68 ab	63 cd	57 bcd	57 bcd	63 abc	60 abc	5 fg
	AMS	0.162	KG A/HA	0.1443	LB A/A	POST	A								
	Option	35	G A/HA	1.43	OZ/A	POST	B								
	Buctril	280	G A/HA	0.855	PT/A	POST	B								
	atrazine	1000	G A/HA	1.78	PT/A	POST	B								
	Rivet	1.75	L/HA	1.25	% V/V	POST	B								
	UAN 28 %	2.500	L/HA	1.78	% V/V	POST	B								
14	glyphosate (Weathermax)	100	G A/HA	2.53	FL OZ/A	POST	A	54 b-e	52 cd	48 e	50 cd	53 cde	52 cde	49 cde	26 e
	AMS	0.322	KG A/HA	0.2875	LB A/A	POST	A								
	Option	35	G A/HA	1.43	OZ/A	POST	B								
	Buctril	280	G A/HA	0.855	PT/A	POST	B								
	atrazine	1000	G A/HA	1.78	PT/A	POST	B								
	Rivet	1.75	L/HA	1.25	% V/V	POST	B								
	UAN 28 %	2.500	L/HA	1.78	% V/V	POST	B								
15	glyphosate (Weathermax)	200	G A/HA	5.07	FL OZ/A	POST	A	35 fg	33 ef	35 g	30 f	33 fg	40 ef	35 e	46 b
	AMS	0.646	KG A/HA	0.5761	LB A/A	POST	A								
	Option	35	G A/HA	1.43	OZ/A	POST	B								
	Buctril	280	G A/HA	0.855	PT/A	POST	B								
	atrazine	1000	G A/HA	1.78	PT/A	POST	B								
	Rivet	1.75	L/HA	1.25	% V/V	POST	B								
	UAN 28 %	2.500	L/HA	1.78	% V/V	POST	B								
16	Weed Free Check							53 c-f	75 ab	74 ab	77 a	72 ab	73 ab	73 a	0 g
LSD (P=.05)							18.3	13.7	10.1	14.6	16.8	15.4	15.6	9.2	
Standard Deviation							12.8	9.6	7.1	10.2	11.8	10.8	10.9	6.4	
CV							22.67	16.71	12.58	18.26	21.14	19.39	19.78	33.88	
Grand Mean							56.57	57.27	56.29	55.91	55.66	55.52	55.19	19.03	
Bartlett's X2							35.608	9.096	20.662	24.29	29.021	24.545	20.188	9.179	
P(Bartlett's X2)							0.001*	0.825	0.111	0.042*	0.01*	0.039*	0.124	0.605	
Replicate F							4.053	10.587	18.694	15.289	12.241	11.513	15.186	0.221	
Replicate Prob(F)							0.0130	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.8815	
Treatment F							6.322	15.316	25.205	11.595	8.741	9.394	10.283	47.541	
Treatment Prob(F)							0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	

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

Untreated treatment(s) 1 excluded from analysis.

Purdue University

Crop Code							ZEAMX	ZEAMX	ZEAMX	ZEAMX	
Rating Data Type							Dry Weight	# of Plants	YIELD	YIELD	
Rating Unit							grams		LB	BU	
Rating Date							9/Aug/2006	9/Aug/2006	9/Nov/2006	9/Nov/2006	
Crop Stage									Harvest	Harvest	
Footnote Number									1	1	
Assessed By							JD	JD			
ARM Action Codes										TY2	
# Subsamples, Dec.										1	
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	16	17	18	19
1	Weed free check							913	5	25	155.0
2	glyphosate (Weathermax) AMS	10 0.0322	G A/HA KG A/HA	0.253 0.02875	FL OZ/A LB A/A	POST POST	A A	971 a	6 ab	29 ab	177.8 ab
3	glyphosate (Weathermax) AMS	50 0.162	G A/HA KG A/HA	1.27 0.1443	FL OZ/A LB A/A	POST POST	A A	868 a	5 ab	25 b	154.8 b
4	glyphosate (Weathermax) AMS	100 0.322	G A/HA KG A/HA	2.53 0.2875	FL OZ/A LB A/A	POST POST	A A	505 b	6 a	17 c	106.1 c
5	glyphosate (Weathermax) AMS	200 0.646	G A/HA KG A/HA	5.07 0.5761	FL OZ/A LB A/A	POST POST	A A	304 bcd	6 ab	7 de	44.9 de
6	DPX 79406 Distinct NIS UAN 28 %	25 200 0.250 1.250	G A/HA G A/HA % V/V % V/V	0.476 4.08 0.25 1.25	OZ/A OZ/A % V/V % V/V	POST POST POST POST	B B B B	1005 a	6 ab	28 ab	174.1 ab
7	Option Buctril atrazine Rivet UAN 28 %	35 280 1000 1.75 2.500	G A/HA G A/HA G A/HA L/HA L/HA	1.43 0.855 1.78 1.25 1.78	OZ/A PT/A PT/A % V/V % V/V	POST POST POST POST POST	B B B B B	996 a	6 ab	27 ab	169.2 ab
8	glyphosate (Weathermax) AMS DPX 79406 Distinct NIS UAN 28 %	10 0.0322 25 200 0.250 1.250	G A/HA KG A/HA G A/HA G A/HA % V/V % V/V	0.253 0.02875 0.476 4.08 0.25 1.25	FL OZ/A LB A/A OZ/A OZ/A % V/V % V/V	POST POST POST POST POST POST	A A B B B B	1063 a	6 ab	30 ab	182.2 ab
9	glyphosate (Weathermax) AMS DPX 79406 Distinct NIS UAN 28 %	50 0.162 25 200 0.250 1.250	G A/HA KG A/HA G A/HA G A/HA % V/V % V/V	1.27 0.1443 0.476 4.08 0.25 1.25	FL OZ/A LB A/A OZ/A OZ/A % V/V % V/V	POST POST POST POST POST POST	A A B B B B	1000 a	5 ab	27 ab	166.4 ab
10	glyphosate (Weathermax) AMS DPX 79406 Distinct NIS UAN 28 %	100 0.322 25 200 0.250 1.250	G A/HA KG A/HA G A/HA G A/HA % V/V % V/V	2.53 0.2875 0.476 4.08 0.25 1.25	FL OZ/A LB A/A OZ/A OZ/A % V/V % V/V	POST POST POST POST POST POST	A A B B B B	499 bc	6 ab	11 d	69.9 d
11	glyphosate (Weathermax) AMS DPX 79406 Distinct NIS UAN 28 %	200 0.646 25 200 0.250 1.250	G A/HA KG A/HA G A/HA G A/HA % V/V % V/V	5.07 0.5761 0.476 4.08 0.25 1.25	FL OZ/A LB A/A OZ/A OZ/A % V/V % V/V	POST POST POST POST POST POST	A A B B B B	68 d	5 b	3 e	17.5 e
12	glyphosate (Weathermax) AMS Option Buctril atrazine Rivet UAN 28 %	10 0.0322 35 280 1000 1.75 2.500	G A/HA KG A/HA G A/HA G A/HA L/HA L/HA	0.253 0.02875 1.43 0.855 1.78 1.25 1.78	FL OZ/A LB A/A OZ/A PT/A PT/A % V/V % V/V	POST POST POST POST POST POST POST	A A B B B B B	1020 a	6 ab	31 a	192.1 a

Purdue University

Crop Code							ZEAMX	ZEAMX	ZEAMX	ZEAMX	
Rating Data Type							Dry Weight	# of Plants	YIELD	YIELD	
Rating Unit							grams		LB	BU	
Rating Date							9/Aug/2006	9/Aug/2006	9/Nov/2006	9/Nov/2006	
Crop Stage									Harvest	Harvest	
Footnote Number									1	1	
Assessed By							JD	JD			
ARM Action Codes										TY2	
# Subsamples, Dec.										1	
Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	16	17	18	19
13	glyphosate (Weathermax)	50	G A/HA	1.27	FL OZ/A	POST	A	889 a	6 a	27 ab	165.5 ab
	AMS	0.162	KG A/HA	0.1443	LB A/A	POST	A				
	Option	35	G A/HA	1.43	OZ/A	POST	B				
	Buctril	280	G A/HA	0.855	PT/A	POST	B				
	atrazine	1000	G A/HA	1.78	PT/A	POST	B				
	Rivet	1.75	L/HA	1.25	% V/V	POST	B				
	UAN 28 %	2.500	L/HA	1.78	% V/V	POST	B				
14	glyphosate (Weathermax)	100	G A/HA	2.53	FL OZ/A	POST	A	566 b	6 ab	18 c	110.0 c
	AMS	0.322	KG A/HA	0.2875	LB A/A	POST	A				
	Option	35	G A/HA	1.43	OZ/A	POST	B				
	Buctril	280	G A/HA	0.855	PT/A	POST	B				
	atrazine	1000	G A/HA	1.78	PT/A	POST	B				
	Rivet	1.75	L/HA	1.25	% V/V	POST	B				
	UAN 28 %	2.500	L/HA	1.78	% V/V	POST	B				
15	glyphosate (Weathermax)	200	G A/HA	5.07	FL OZ/A	POST	A	233 cd	6 ab	6 e	34.9 e
	AMS	0.646	KG A/HA	0.5761	LB A/A	POST	A				
	Option	35	G A/HA	1.43	OZ/A	POST	B				
	Buctril	280	G A/HA	0.855	PT/A	POST	B				
	atrazine	1000	G A/HA	1.78	PT/A	POST	B				
	Rivet	1.75	L/HA	1.25	% V/V	POST	B				
	UAN 28 %	2.500	L/HA	1.78	% V/V	POST	B				
16	Weed Free Check							1050 a	6 ab	32 a	194.5 a
LSD (P=.05)							268.2	1.1	5.4	32.99	
Standard Deviation							187.7	0.7	3.8	23.09	
CV							25.51	13.24	17.67	17.67	
Grand Mean							735.85	5.57	21.22	130.67	
Bartlett's X2							15.509	9.444	17.613	17.614	
P(Bartlett's X2)							0.344	0.665	0.225	0.225	
Replicate F							1.628	1.678	2.091	2.091	
Replicate Prob(F)							0.1977	0.1867	0.1162	0.1163	
Treatment F							13.116	0.754	28.515	28.514	
Treatment Prob(F)							0.0001	0.7092	0.0001	0.0001	

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

Untreated treatment(s) 1 excluded from analysis.

Column 18 Footnote: Harvested 2 rows by 25 feet

Column 19: TY2 = 6.156578*[18]

Footnote: Harvested 2 rows by 25 feet