

University of Tennessee

Evaluation of Systems to Manage Dicamba - Resistant Palmer Amaranth

Trial ID: D104F-23_2
 Protocol ID: DICRESPA Location: Jackson Trial Year: 2023
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator:

Reps: 3 Plots: 6.33 by 30 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2 L (total for 3 plots; minimum=0.7426 L)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Appl Unit	Appl Code	Appl Description	Appl Timing	Amt Product to Measure	Rep 1	Rep 2	Rep 3
1	Cotoran 4 Dual Magnum	4 F		32 fl oz/a	A			PREEM	33.33 mL/mx	101	211	316
		7.64 EC		16 fl oz/a	B			EAPOWE	16.67 mL/mx			
2	Brake Cotoran 4 Dual Magnum	4 AS		16 fl oz/a	A			PREEM	16.67 mL/mx	102	218	314
		4 F		24 fl oz/a	A			PREEM	25.0 mL/mx			
		7.64 EC		16 fl oz/a	B			EAPOWE	16.67 mL/mx			
3	Cotoran 4 Outlook	4 F		32 fl oz/a	A			PREEM	33.33 mL/mx	103	221	319
		6 L		16 fl oz/a	B			EAPOWE	16.67 mL/mx			
4	Brake Cotoran 4 Outlook	4 AS		16 fl oz/a	A			PREEM	16.67 mL/mx	104	213	311
		4 F		24 fl oz/a	A			PREEM	25.0 mL/mx			
		6 L		16 fl oz/a	B			EAPOWE	16.67 mL/mx			
5	Cotoran 4 Liberty 280 SL Roundup PowerMax 3 Dual Magnum Ammonium Sulfate	4 F		32 fl oz/a	A			PREEM	33.33 mL/mx	105	212	306
		2.34 SL		43 fl oz/a	B			EAPOWE	44.79 mL/mx			
		5.88 L		32 fl oz/a	B			EAPOWE	33.33 mL/mx			
		7.64 EC		16 fl oz/a	B			EAPOWE	16.67 mL/mx			
		100 SG		3 lb/a	B			EAPOWE	47.93 g/mx			
6	Brake Cotoran 4 Liberty 280 SL Roundup PowerMax 3 Dual Magnum Ammonium Sulfate	4 AS		16 fl oz/a	A			PREEM	16.67 mL/mx	106	219	301
		4 F		24 fl oz/a	A			PREEM	25.0 mL/mx			
		2.34 SL		43 fl oz/a	B			EAPOWE	44.79 mL/mx			
		5.88 L		32 fl oz/a	B			EAPOWE	33.33 mL/mx			
		7.64 EC		16 fl oz/a	B			EAPOWE	16.67 mL/mx			
7	Cotoran 4 Liberty 280 SL Roundup PowerMax 3 Outlook Ammonium Sulfate	4 F		32 fl oz/a	A			PREEM	33.33 mL/mx	107	210	304
		2.34 SL		43 fl oz/a	B			EAPOWE	44.79 mL/mx			
		5.88 L		32 fl oz/a	B			EAPOWE	33.33 mL/mx			
		6 L		16 fl oz/a	B			EAPOWE	16.67 mL/mx			
		100 SG		3 lb/a	B			EAPOWE	47.93 g/mx			
8	Brake Cotoran 4 Liberty 280 SL Roundup PowerMax 3 Outlook Ammonium Sulfate	4 AS		16 fl oz/a	A			PREEM	16.67 mL/mx	108	222	324
		4 F		24 fl oz/a	A			PREEM	25.0 mL/mx			
		2.34 SL		43 fl oz/a	B			EAPOWE	44.79 mL/mx			
		5.88 L		32 fl oz/a	B			EAPOWE	33.33 mL/mx			
		6 L		16 fl oz/a	B			EAPOWE	16.67 mL/mx			
9	Cotoran 4 Dual Magnum Zidua SC	4 F		32 fl oz/a	A			PREEM	33.33 mL/mx	109	207	310
		7.64 EC		16 fl oz/a	B			EAPOWE	16.67 mL/mx			
		4.17 SC		3.2 fl oz/a	C	V6 - V8		17	3.333 mL/mx			
10	Brake Cotoran 4 Dual Magnum Zidua SC	4 AS		16 fl oz/a	A			PREEM	16.67 mL/mx	110	203	322
		4 F		24 fl oz/a	A			PREEM	25.0 mL/mx			
		7.64 EC		16 fl oz/a	B			EAPOWE	16.67 mL/mx			
		4.17 SC		3.2 fl oz/a	C	V6 - V8		17	3.333 mL/mx			
11	Cotoran 4 Outlook Zidua SC	4 F		32 fl oz/a	A			PREEM	33.33 mL/mx	111	208	315
		6 L		16 fl oz/a	B			EAPOWE	16.67 mL/mx			
		4.17 SC		3.2 fl oz/a	C	V6 - V8		17	3.333 mL/mx			
12	Brake Cotoran 4 Outlook Zidua SC	4 AS		16 fl oz/a	A			PREEM	16.67 mL/mx	112	216	303
		4 F		24 fl oz/a	A			PREEM	25.0 mL/mx			
		6 L		16 fl oz/a	B			EAPOWE	16.67 mL/mx			
		4.17 SC		3.2 fl oz/a	C	V6 - V8		17	3.333 mL/mx			
13	Cotoran 4 Liberty 280 SL Roundup PowerMax 3 Dual Magnum Ammonium Sulfate Zidua SC	4 F		32 fl oz/a	A			PREEM	33.33 mL/mx	113	205	302
		2.34 SL		43 fl oz/a	B			EAPOWE	44.79 mL/mx			
		5.88 L		32 fl oz/a	B			EAPOWE	33.33 mL/mx			
		7.64 EC		16 fl oz/a	B			EAPOWE	16.67 mL/mx			
		100 SG		3 lb/a	B			EAPOWE	47.93 g/mx			
14	Brake Cotoran 4 Liberty 280 SL Roundup PowerMax 3 Dual Magnum Ammonium Sulfate Zidua SC	4 AS		16 fl oz/a	A			PREEM	16.67 mL/mx	114	217	320
		4 F		24 fl oz/a	A			PREEM	25.0 mL/mx			
		2.34 SL		43 fl oz/a	B			EAPOWE	44.79 mL/mx			
		5.88 L		32 fl oz/a	B			EAPOWE	33.33 mL/mx			
		4.17 SC		3.2 fl oz/a	C	V6 - V8		17	3.333 mL/mx			

University of Tennessee

Evaluation of Systems to Manage Dicamba - Resistant Palmer Amaranth

Trial ID: D104F-23_2
 Protocol ID: DICRESPA Location: Jackson Trial Year: 2023
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator:

Reps: 3 Plots: 6.33 by 30 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2 L (total for 3 plots; minimum=0.7426 L)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	Appl Description	Appl Timing	Amt Product to Measure	Rep 1	Rep 2	Rep 3
15	Cotoran 4	4 F		32 fl oz/a	A			PREEM	33.33 mL/mx	115	214	313
	Liberty 280 SL	2.34 SL		43 fl oz/a	B			EAPOWE	44.79 mL/mx			
	Roundup PowerMax 3	5.88 L		32 fl oz/a	B			EAPOWE	33.33 mL/mx			
	Outlook	6 L		16 fl oz/a	B			EAPOWE	16.67 mL/mx			
	Ammonium Sulfate	100 SG		3 lb/a	B			EAPOWE	47.93 g/mx			
	Zidua SC	4.17 SC		3.2 fl oz/a	C	V6 - V8		17	3.333 mL/mx			
16	Brake	4 AS		16 fl oz/a	A			PREEM	16.67 mL/mx	116	220	307
	Cotoran 4	4 F		24 fl oz/a	A			PREEM	25.0 mL/mx			
	Liberty 280 SL	2.34 SL		43 fl oz/a	B			EAPOWE	44.79 mL/mx			
	Roundup PowerMax 3	5.88 L		32 fl oz/a	B			EAPOWE	33.33 mL/mx			
	Outlook	6 L		16 fl oz/a	B			EAPOWE	16.67 mL/mx			
	Ammonium Sulfate	100 SG		3 lb/a	B			EAPOWE	47.93 g/mx			
Zidua SC	4.17 SC		3.2 fl oz/a	C	V6 - V8		17	3.333 mL/mx				
17	Cotoran 4	4 F		32 fl oz/a	A			PREEM	33.33 mL/mx	117	209	317
	Dual Magnum	7.64 EC		16 fl oz/a	B			EAPOWE	16.67 mL/mx			
	Zidua SC	4.17 SC		3.2 fl oz/a	C	V6 - V8		17	3.333 mL/mx			
	Direx	4 F		16 fl oz/a	D			POSDIR	16.67 mL/mx			
	MSMA	6 SC		42 fl oz/a	D			POSDIR	43.75 mL/mx			
18	Brake	4 AS		16 fl oz/a	A			PREEM	16.67 mL/mx	118	223	309
	Cotoran 4	4 F		24 fl oz/a	A			PREEM	25.0 mL/mx			
	Dual Magnum	7.64 EC		16 fl oz/a	B			EAPOWE	16.67 mL/mx			
	Zidua SC	4.17 SC		3.2 fl oz/a	C	V6 - V8		17	3.333 mL/mx			
	Direx	4 F		16 fl oz/a	D			POSDIR	16.67 mL/mx			
	MSMA	6 SC		42 fl oz/a	D			POSDIR	43.75 mL/mx			
19	Cotoran 4	4 F		32 fl oz/a	A			PREEM	33.33 mL/mx	119	215	312
	Outlook	6 L		16 fl oz/a	B			EAPOWE	16.67 mL/mx			
	Zidua SC	4.17 SC		3.2 fl oz/a	C	V6 - V8		17	3.333 mL/mx			
	Direx	4 F		16 fl oz/a	D			POSDIR	16.67 mL/mx			
	MSMA	6 SC		42 fl oz/a	D			POSDIR	43.75 mL/mx			
20	Brake	4 AS		16 fl oz/a	A			PREEM	16.67 mL/mx	120	206	308
	Cotoran 4	4 F		24 fl oz/a	A			PREEM	25.0 mL/mx			
	Outlook	6 L		16 fl oz/a	B			EAPOWE	16.67 mL/mx			
	Zidua SC	4.17 SC		3.2 fl oz/a	C	V6 - V8		17	3.333 mL/mx			
	Direx	4 F		16 fl oz/a	D			POSDIR	16.67 mL/mx			
	MSMA	6 SC		42 fl oz/a	D			POSDIR	43.75 mL/mx			
21	Cotoran 4	4 F		32 fl oz/a	A			PREEM	33.33 mL/mx	121	204	305
	Liberty 280 SL	2.34 SL		43 fl oz/a	B			EAPOWE	44.79 mL/mx			
	Roundup PowerMax 3	5.88 L		32 fl oz/a	B			EAPOWE	33.33 mL/mx			
	Dual Magnum	7.64 EC		16 fl oz/a	B			EAPOWE	16.67 mL/mx			
	Ammonium Sulfate	100 SG		3 lb/a	B			EAPOWE	47.93 g/mx			
	Zidua SC	4.17 SC		3.2 fl oz/a	C	V6 - V8		17	3.333 mL/mx			
	Direx	4 F		16 fl oz/a	D			POSDIR	16.67 mL/mx			
	MSMA	6 SC		42 fl oz/a	D			POSDIR	43.75 mL/mx			
22	Brake	4 AS		16 fl oz/a	A			PREEM	16.67 mL/mx	122	224	318
	Cotoran 4	4 F		24 fl oz/a	A			PREEM	25.0 mL/mx			
	Liberty 280 SL	2.34 SL		43 fl oz/a	B			EAPOWE	44.79 mL/mx			
	Roundup PowerMax 3	5.88 L		32 fl oz/a	B			EAPOWE	33.33 mL/mx			
	Dual Magnum	7.64 EC		16 fl oz/a	B			EAPOWE	16.67 mL/mx			
	Ammonium Sulfate	100 SG		3 lb/a	B			EAPOWE	47.93 g/mx			
	Zidua SC	4.17 SC		3.2 fl oz/a	C	V6 - V8		17	3.333 mL/mx			
	Direx	4 F		16 fl oz/a	D			POSDIR	16.67 mL/mx			
MSMA	6 SC		42 fl oz/a	D			POSDIR	43.75 mL/mx				

University of Tennessee

Evaluation of Systems to Manage Dicamba - Resistant Palmer Amaranth

Trial ID: D104F-23_2
 Protocol ID: DICRESPA Location: Jackson Trial Year: 2023
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator:

Reps: 3 Plots: 6.33 by 30 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2 L (total for 3 plots; minimum=0.7426 L)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Appl Code	Appl Description	Appl Timing	Amt to Measure	Rep 1	Rep 2	Rep 3
23	Cotoran 4	4	F	32	fl oz/a	A		PREEM	33.33 mL/mx	123	201	321
	Liberty 280 SL	2.34	SL	43	fl oz/a	B		EAPOWE	44.79 mL/mx			
	Roundup PowerMax 3	5.88	L	32	fl oz/a	B		EAPOWE	33.33 mL/mx			
	Outlook	6	L	16	fl oz/a	B		EAPOWE	16.67 mL/mx			
	Ammonium Sulfate	100	SG	3	lb/a	B		EAPOWE	47.93 g/mx			
	Zidua SC	4.17	SC	3.2	fl oz/a	C	V6 - V8	17	3.333 mL/mx			
	Direx	4	F	16	fl oz/a	D		POSDIR	16.67 mL/mx			
	MSMA	6	SC	42	fl oz/a	D		POSDIR	43.75 mL/mx			
24	Brake	4	AS	16	fl oz/a	A		PREEM	16.67 mL/mx	124	202	323
	Cotoran 4	4	F	24	fl oz/a	A		PREEM	25.0 mL/mx			
	Liberty 280 SL	2.34	SL	43	fl oz/a	B		EAPOWE	44.79 mL/mx			
	Roundup PowerMax 3	5.88	L	32	fl oz/a	B		EAPOWE	33.33 mL/mx			
	Outlook	6	L	16	fl oz/a	B		EAPOWE	16.67 mL/mx			
	Ammonium Sulfate	100	SG	3	lb/a	B		EAPOWE	47.93 g/mx			
	Zidua SC	4.17	SC	3.2	fl oz/a	C	V6 - V8	17	3.333 mL/mx			
	Direx	4	F	16	fl oz/a	D		POSDIR	16.67 mL/mx			
MSMA	6	SC	42	fl oz/a	D		POSDIR	43.75 mL/mx				

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
874.999	mL	Cotoran 4	4	LBA/GAL	F	
250.000	mL	Dual Magnum	7.64	LB/GAL	EC	
250.000	mL	Brake	4	LBA/GAL	AS	
250.000	mL	Outlook	6	LB/GAL	L	
671.874	mL	Liberty 280 SL	2.34	LB/GAL	SL	
500.000	mL	Roundup PowerMax 3	5.88	LBA/GAL	L	
718.955	g	Ammonium Sulfate	100	%	SG	
66.667	mL	Zidua SC	4.17	LB/GAL	SC	
166.667	mL	Direx	4	LBA/GAL	F	
437.500	mL	MSMA	6	LBA/GAL	SC	

* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).
 * Product amount calculations increased 25 % for overage adjustment.

University of Tennessee

2023 USB Metribuzin Tank Mix Trial

Trial ID: 2023USBTankJX
 Protocol ID: 2023USBTank Location: Jackson Trial Year: 2023
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator:

Reps: 4 Plots: 10 by 30 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2 L (total for 4 plots; minimum=1.564 L)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Appl Unit	Appl Code	Appl Description	Appl Timing	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
1	METRIBUZIN 75	75	WG	8 oz/a	A	PRE	PRE	PRE	7.988 g/mx	101	208	311	410
2	METRIBUZIN 75	75	WG	12 oz/a	A	PRE	PRE	PRE	11.98 g/mx	102	220	318	411
3	METRIBUZIN 75	75	WG	8 oz/a	A	PRE	PRE	PRE	7.988 g/mx	103	202	310	419
	VALOR EZ	480	SC	2.5 oz/a	A	PRE	PRE	2.604 mL/mx					
	ZIDUA SC	500	SC	3.5 oz/a	A	PRE	PRE	3.646 mL/mx					
4	METRIBUZIN 75	75	WG	12 oz/a	A	PRE	PRE	PRE	11.98 g/mx	104	214	307	402
	VALOR EZ	480	SC	2.5 oz/a	A	PRE	PRE	2.604 mL/mx					
	ZIDUA SC	500	SC	3.5 oz/a	A	PRE	PRE	3.646 mL/mx					
5	METRIBUZIN 75	75	WG	8 oz/a	A	PRE	PRE	PRE	7.988 g/mx	105	218	302	416
	SURVEIL	48	WG	3.5 oz/a	A	PRE	PRE	3.495 g/mx					
6	METRIBUZIN 75	75	WG	12 oz/a	A	PRE	PRE	PRE	11.98 g/mx	106	209	304	412
	SURVEIL	48	WG	3.5 oz/a	A	PRE	PRE	3.495 g/mx					
7	METRIBUZIN 75	75	WG	8 oz/a	A	PRE	PRE	PRE	7.988 g/mx	107	210	305	409
	SURVEIL	48	WG	3.5 oz/a	A	PRE	PRE	3.495 g/mx					
	ZIDUA SC	500	SC	3.5 oz/a	A	PRE	PRE	3.646 mL/mx					
8	METRIBUZIN 75	75	WG	12 oz/a	A	PRE	PRE	PRE	11.98 g/mx	108	203	317	403
	SURVEIL	48	WG	3.5 oz/a	A	PRE	PRE	3.495 g/mx					
	ZIDUA SC	500	SC	3.5 oz/a	A	PRE	PRE	3.646 mL/mx					
9	FIERCE MTZ	316.8	SC	1.25 pt/a	A	PRE	PRE	PRE	20.83 mL/mx	109	215	303	413
	METRIBUZIN 75	75	WG	4.3 oz/a	A	PRE	PRE	4.294 g/mx					
10	FIERCE MTZ	316.8	SC	1.25 pt/a	A	PRE	PRE	PRE	20.83 mL/mx	110	217	312	415
	METRIBUZIN 75	75	WG	8.3 oz/a	A	PRE	PRE	8.288 g/mx					
11	METRIBUZIN 75	75	WG	8 oz/a	A	PRE	PRE	PRE	7.988 g/mx	111	219	321	414
	DUAL MAGNUM	7.62	EC	1 pt/a	A	PRE	PRE	16.67 mL/mx					
12	METRIBUZIN 75	75	WG	12 oz/a	A	PRE	PRE	PRE	11.98 g/mx	112	201	316	406
	DUAL MAGNUM	7.62	EC	1 pt/a	A	PRE	PRE	16.67 mL/mx					
13	METRIBUZIN 75	75	WG	8 oz/a	A	PRE	PRE	PRE	7.988 g/mx	113	221	314	408
	WARRANT	3	CS	48 oz/a	A	PRE	PRE	50.0 mL/mx					
14	METRIBUZIN 75	75	WG	12 oz/a	A	PRE	PRE	PRE	11.98 g/mx	114	207	308	421
	WARRANT	3	CS	48 oz/a	A	PRE	PRE	50.0 mL/mx					
15	VALOR EZ	480	SC	2.5 oz/a	A	PRE	PRE	PRE	2.604 mL/mx	115	213	306	417
16	ZIDUA SC	500	SC	3.5 oz/a	A	PRE	PRE	PRE	3.646 mL/mx	116	205	301	404
17	SURVEIL	48	WG	3.5 oz/a	A	PRE	PRE	PRE	3.495 g/mx	117	206	320	407
18	FIERCE MTZ	316.8	SC	1.25 pt/a	A	PRE	PRE	PRE	20.83 mL/mx	118	211	309	405
19	DUAL MAGNUM	7.62	EC	1 pt/a	A	PRE	PRE	PRE	16.67 mL/mx	119	212	319	418
20	WARRANT	3	CS	48 oz/a	A	PRE	PRE	PRE	50.0 mL/mx	120	216	313	420
21	UNTREATED									121	204	315	401

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
165.510	g	METRIBUZIN 75	75	%	WG	
9.766	mL	VALOR EZ	480	gA/L	SC	
22.786	mL	ZIDUA SC	500	gA/L	SC	
21.843	g	SURVEIL	48	%AW/W	WG	
78.125	mL	FIERCE MTZ	316.8	gA/L	SC	
62.500	mL	DUAL MAGNUM	7.62	LB/GAL	EC	
187.500	mL	WARRANT	3	LB/GAL	CS	

* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

University of Tennessee

BRT-23-121: Developing a standard methodology for quantitative data collection

Trial ID: BRT-23-121
 Protocol ID: BRT-23-121 Location: Jackson, TN Trial Year: 2023
 Project ID: BRT-Shasta-Small-Plot Project ID 2: Project ID 3:
 Study Director: Lauren Lazaro Sponsor Contact:
 Investigator: Larry Steckel

Reps: 4 Plots: 12.7 by 70 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2.5 GAL (total for 4 plots; minimum=1.2245 GAL)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Appl Code	Appl Description	Appl Timing	Amt to Measure	Rep 1	Rep 2	Rep 3	Rep 4
1	Tendovo	4.18	ZC	2350 g ai/ha	A	BC		PRE	316.0 mL/mx	101	204	306	402
	Gramoxone	3	SL	716 g ai/ha	A	BC		PRE	134.1 mL/mx				
	Preference	89.5	SL	0.25 % v/v	A	BC		PRE	23.66 mL/mx				
2	Tendovo	4.18	ZC	2350 g ai/ha	A	BC		PRE	316.0 mL/mx	102	201	303	401
	Gramoxone	3	SL	716 g ai/ha	A	BC		PRE	134.1 mL/mx				
	Preference	89.5	SL	0.25 % v/v	A	BC		PRE	23.66 mL/mx				
	Liberty	2.34	SL	657 g ai/ha	B	BC		POST1	157.8 mL/mx				
	Preference	89.5	SL	0.25 % v/v	B	BC		POST1	23.66 mL/mx				
	Liberty	2.34	SL	657 g ai/ha	D	BC		POST2	157.8 mL/mx				
3	Tendovo	4.18	ZC	2350 g ai/ha	A	BC		PRE	316.0 mL/mx	103	202	304	405
	Gramoxone	3	SL	716 g ai/ha	A	BC		PRE	134.1 mL/mx				
	Preference	89.5	SL	0.25 % v/v	A	BC		PRE	23.66 mL/mx				
	Liberty	2.34	SL	657 g ai/ha	C	SS		POST1	157.8 mL/mx				
	Preference	89.5	SL	0.25 % v/v	C	SS		POST1	23.66 mL/mx				
	Liberty	2.34	SL	657 g ai/ha	E	SS		POST2	157.8 mL/mx				
4	Tendovo	4.18	ZC	2350 g ai/ha	A	BC		PRE	316.0 mL/mx	104	206	301	403
	Gramoxone	3	SL	716 g ai/ha	A	BC		PRE	134.1 mL/mx				
	Preference	89.5	SL	0.25 % v/v	A	BC		PRE	23.66 mL/mx				
	Liberty	2.34	SL	657 g ai/ha	C	SS		POST1	157.8 mL/mx				
	Preference	89.5	SL	0.25 % v/v	C	SS		POST1	23.66 mL/mx				
	Liberty	2.34	SL	657 g ai/ha	E	SS		POST2	157.8 mL/mx				
5	Tendovo	4.18	ZC	2350 g ai/ha	A	BC		PRE	316.0 mL/mx	105	203	305	404
	Gramoxone	3	SL	716 g ai/ha	A	BC		PRE	134.1 mL/mx				
	Preference	89.5	SL	0.25 % v/v	A	BC		PRE	23.66 mL/mx				
	Liberty	2.34	SL	657 g ai/ha	C	SS		POST1	157.8 mL/mx				
	Preference	89.5	SL	0.25 % v/v	C	SS		POST1	23.66 mL/mx				
	Liberty	2.34	SL	657 g ai/ha	E	SS		POST2	157.8 mL/mx				
6	Tendovo	4.18	ZC	2350 g ai/ha	A	BC		PRE	316.0 mL/mx	106	207	302	407
	Gramoxone	3	SL	716 g ai/ha	A	BC		PRE	134.1 mL/mx				
	Preference	89.5	SL	0.25 % v/v	A	BC		PRE	23.66 mL/mx				
	Liberty	2.34	SL	657 g ai/ha	C	SS		POST1	157.8 mL/mx				
	Preference	89.5	SL	0.25 % v/v	C	SS		POST1	23.66 mL/mx				
	Liberty	2.34	SL	657 g ai/ha	E	SS		POST2	157.8 mL/mx				
7	Tendovo	4.18	ZC	2350 g ai/ha	A	BC		PRE	316.0 mL/mx	107	205	307	406
	Gramoxone	3	SL	716 g ai/ha	A	BC		PRE	134.1 mL/mx				
	Preference	89.5	SL	0.25 % v/v	A	BC		PRE	23.66 mL/mx				
	Liberty	2.34	SL	657 g ai/ha	C	SS		POST1	157.8 mL/mx				
	Preference	89.5	SL	0.25 % v/v	C	SS		POST1	23.66 mL/mx				
	Liberty	2.34	SL	657 g ai/ha	E	SS		POST2	157.8 mL/mx				

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
2,764.948	mL	Tendovo	4.18	LBA/GAL	ZC	
1,173.781	mL	Gramoxone	3	LBA/GAL	SL	
561.897	mL	Preference	89.5	%	SL	
2,367.162	mL	Liberty	2.34	LBA/GAL	SL	

* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2.5 GAL (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2.5 GAL.

University of Tennessee

BRT-23-160: Atrazine Mitigation Efforts

Trial ID: BRT-23-160
 Protocol ID: BRT-23-160 Location: Jackson, TN Trial Year: 2023
 Project ID: Lauren Lazaro Project ID 2: Project ID 3:
 Study Director: Lauren Lazaro Sponsor Contact:
 Investigator: Larry Steckel

Reps: 4 Plots: 12.7 by 70 feet
 Mix Size: 2.5 GAL

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Appl Code	Appl Description	Appl Timing	Amount	Unit	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
1	Untreated Check											101	204	301	404
2	Dual II Magnum	7.64	EC	1400	g ai/ha	A	BC	PRE	15	GAL/AC	103.0 mL/mx	102	206	302	405
	Gramoxone	3	SL	716	g ai/ha	A	BC	PRE	15	GAL/AC	134.1 mL/mx				
	Preference	89.5	SL	0.25	% v/v	A	BC	PRE	15	GAL/AC	23.66 mL/mx				
	Roundup Powermax 3	4.8	SL	1260	g ae/ha	B	BC	POST	15	GAL/AC	147.5 mL/mx				
	Atrazine	4	L	1120	g ai/ha	B	BC	POST	15	GAL/AC	157.4 mL/mx				
3	Dual II Magnum	7.64	EC	1400	g ai/ha	A	BC	PRE	15	GAL/AC	103.0 mL/mx	103	202	304	407
	Gramoxone	3	SL	716	g ai/ha	A	BC	PRE	15	GAL/AC	134.1 mL/mx				
	Preference	89.5	SL	0.25	% v/v	A	BC	PRE	15	GAL/AC	23.66 mL/mx				
	Roundup Powermax 3	4.8	SL	1260	g ae/ha	C	BC	POST	10	GAL/AC	221.3 mL/mx				
	Atrazine	4	L	1120	g ai/ha	D	SS	POST	15	GAL/AC	157.4 mL/mx				
	Superb HC	92	SL	0.5	% v/v	D	SS	POST	15	GAL/AC	47.32 mL/mx				
4	Dual II Magnum	7.64	EC	1400	g ai/ha	A	BC	PRE	15	GAL/AC	103.0 mL/mx	104	205	307	403
	Gramoxone	3	SL	716	g ai/ha	A	BC	PRE	15	GAL/AC	134.1 mL/mx				
	Preference	89.5	SL	0.25	% v/v	A	BC	PRE	15	GAL/AC	23.66 mL/mx				
	Roundup Powermax 3	4.8	SL	1260	g ae/ha	B	BC	POST	15	GAL/AC	147.5 mL/mx				
	Atrazine	4	L	1120	g ai/ha	B	BC	POST	15	GAL/AC	157.4 mL/mx				
	Callisto	4	L	105	g ai/ha	B	BC	POST	15	GAL/AC	14.75 mL/mx				
5	Dual II Magnum	7.64	EC	1400	g ai/ha	A	BC	PRE	15	GAL/AC	103.0 mL/mx	105	203	306	401
	Gramoxone	3	SL	716	g ai/ha	A	BC	PRE	15	GAL/AC	134.1 mL/mx				
	Preference	89.5	SL	0.25	% v/v	A	BC	PRE	15	GAL/AC	23.66 mL/mx				
	Roundup Powermax 3	4.8	SL	1260	g ae/ha	C	BC	POST	10	GAL/AC	221.3 mL/mx				
	Atrazine	4	L	1120	g ai/ha	C	BC	POST	10	GAL/AC	236.1 mL/mx				
	Callisto	4	L	105	g ai/ha	D	SS	POST	15	GAL/AC	14.75 mL/mx				
	Superb HC	92	SL	0.5	% v/v	D	SS	POST	15	GAL/AC	47.32 mL/mx				
6	Dual II Magnum	7.64	EC	1400	g ai/ha	A	BC	PRE	15	GAL/AC	103.0 mL/mx	106	207	303	402
	Gramoxone	3	SL	716	g ai/ha	A	BC	PRE	15	GAL/AC	134.1 mL/mx				
	Preference	89.5	SL	0.25	% v/v	A	BC	PRE	15	GAL/AC	23.66 mL/mx				
	Roundup Powermax 3	4.8	SL	1260	g ae/ha	C	BC	POST	10	GAL/AC	221.3 mL/mx				
	Callisto	4	L	105	g ai/ha	C	BC	POST	10	GAL/AC	22.13 mL/mx				
	Atrazine	4	L	1120	g ai/ha	D	SS	POST	15	GAL/AC	157.4 mL/mx				
	Superb HC	92	SL	0.5	% v/v	D	SS	POST	15	GAL/AC	47.32 mL/mx				
7	Dual II Magnum	7.64	EC	1400	g ai/ha	A	BC	PRE	15	GAL/AC	103.0 mL/mx	107	201	305	406
	Gramoxone	3	SL	716	g ai/ha	A	BC	PRE	15	GAL/AC	134.1 mL/mx				
	Preference	89.5	SL	0.25	% v/v	A	BC	PRE	15	GAL/AC	23.66 mL/mx				
	Roundup Powermax 3	4.8	SL	1260	g ae/ha	D	SS	POST	15	GAL/AC	147.5 mL/mx				
	Atrazine	4	L	1120	g ai/ha	D	SS	POST	15	GAL/AC	157.4 mL/mx				
	Callisto	4	L	105	g ai/ha	D	SS	POST	15	GAL/AC	14.75 mL/mx				

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
772.473	mL	Dual II Magnum	7.64	LBA/GAL	EC	
1,006.098	mL	Gramoxone	3	LBA/GAL	SL	
177.441	mL	Preference	89.5	%	SL	
1,383.209	mL	Roundup Powermax 3	4.8	LBAE/GAL	SL	
1,278.700	mL	Atrazine	4	LBA/GAL	L	
177.441	mL	Superb HC	92	%	SL	
82.993	mL	Callisto	4	LBA/GAL	L	

* 'Per area' calculations based on application amount= 15,10 GAL/AC, mix size= 2.5 GAL (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15,10 GAL/AC, mix size= 2.5 GAL.

University of Tennessee

BRT-23-140: Integration of Single/Dual Tank and Sensitivity Levels in Cotton

Trial ID: BRT-23-140
 Protocol ID: BRT-23-140 Location: Trial Year: 2023
 Project ID: Project ID 2: Project ID 3:
 Study Director: Michael Houston Sponsor Contact: William Patzoldt
 Investigator: Larry Steckel

Reps: 4 Plots: 12.7 by 70 feet
 Mix Size: 2.5 GAL

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Appl Code	Appl Description	Appl Timing	Appl Amount	Amount Unit	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
1	Nontreated Control											101	206	311	408
2	Brake	1.2	SL	168 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		78.69 mL/mx	102	201	313	404
	Cotoran	4	F	840 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		118.0 mL/mx				
	Gramoxone	3	SL	716 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		134.1 mL/mx				
	Preference	89.5	SL	0.25 % v/v	A	Broadcast	PREPRE		15 GAL/AC		23.66 mL/mx				
3	Brake	1.2	SL	168 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		78.69 mL/mx	103	207	301	413
	Cotoran	4	F	840 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		118.0 mL/mx				
	Gramoxone	3	SL	716 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		134.1 mL/mx				
	Preference	89.5	SL	0.25 % v/v	A	Broadcast	PREPRE		15 GAL/AC		23.66 mL/mx				
	Liberty	2.34	SL	595 g ai/ha	B	Broadcast	EPOST		15 GAL/AC		142.9 mL/mx				
	Roundup Powermax 3	4.8	SL	1260 g ae/ha	B	Broadcast	EPOST		15 GAL/AC		147.5 mL/mx				
	Dual Magnum	7.62	EC	1390 g ai/ha	B	Broadcast	EPOST		15 GAL/AC		102.5 mL/mx				
	Liberty	2.34	SL	595 g ai/ha	E	Broadcast	MPOST		15 GAL/AC		142.9 mL/mx				
	Preference	89.5	SL	0.25 % v/v	E	Broadcast	MPOST		15 GAL/AC		23.66 mL/mx				
	Liberty	2.34	SL	595 g ai/ha	G	Broadcast	LPOST		15 GAL/AC		142.9 mL/mx				
	Roundup Powermax 3	4.8	SL	1260 g ae/ha	G	Broadcast	LPOST		15 GAL/AC		147.5 mL/mx				
	Dual Magnum	7.62	EC	1390 g ai/ha	G	Broadcast	LPOST		15 GAL/AC		102.5 mL/mx				
4	Brake	1.2	SL	168 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		78.69 mL/mx	104	203	307	402
	Cotoran	4	F	840 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		118.0 mL/mx				
	Gramoxone	3	SL	716 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		134.1 mL/mx				
	Preference	89.5	SL	0.25 % v/v	A	Broadcast	PREPRE		15 GAL/AC		23.66 mL/mx				
	Liberty	2.34	SL	595 g ai/ha	C	See and Spray	EPOST		15 GAL/AC		142.9 mL/mx				
	Roundup Powermax 3	4.8	SL	1260 g ae/ha	C	See and Spray	EPOST		15 GAL/AC		147.5 mL/mx				
	Liberty	2.34	SL	595 g ai/ha	F	See and Spray	MPOST		15 GAL/AC		142.9 mL/mx				
	Preference	89.5	SL	0.25 % v/v	F	See and Spray	MPOST		15 GAL/AC		23.66 mL/mx				
	Liberty	2.34	SL	595 g ai/ha	H	See and Spray	LPOST		15 GAL/AC		142.9 mL/mx				
	Roundup Powermax 3	4.8	SL	1260 g ae/ha	H	See and Spray	LPOST		15 GAL/AC		147.5 mL/mx				
5	Brake	1.2	SL	168 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		78.69 mL/mx	105	212	306	407
	Cotoran	4	F	840 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		118.0 mL/mx				
	Gramoxone	3	SL	716 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		134.1 mL/mx				
	Preference	89.5	SL	0.25 % v/v	A	Broadcast	PREPRE		15 GAL/AC		23.66 mL/mx				
	Liberty	2.34	SL	595 g ai/ha	C	See and Spray	EPOST		15 GAL/AC		142.9 mL/mx				
	Roundup Powermax 3	4.8	SL	1260 g ae/ha	C	See and Spray	EPOST		15 GAL/AC		147.5 mL/mx				
	Dual Magnum	7.62	EC	1390 g ai/ha	C	See and Spray	EPOST		15 GAL/AC		102.5 mL/mx				
	Liberty	2.34	SL	595 g ai/ha	F	See and Spray	MPOST		15 GAL/AC		142.9 mL/mx				
	Preference	89.5	SL	0.25 % v/v	F	See and Spray	MPOST		15 GAL/AC		23.66 mL/mx				
	Liberty	2.34	SL	595 g ai/ha	H	See and Spray	LPOST		15 GAL/AC		142.9 mL/mx				
	Roundup Powermax 3	4.8	SL	1260 g ae/ha	H	See and Spray	LPOST		15 GAL/AC		147.5 mL/mx				
	Dual Magnum	7.62	EC	1390 g ai/ha	H	See and Spray	LPOST		15 GAL/AC		102.5 mL/mx				
6	Brake	1.2	SL	168 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		78.69 mL/mx	106	209	312	405
	Cotoran	4	F	840 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		118.0 mL/mx				
	Gramoxone	3	SL	716 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		134.1 mL/mx				
	Preference	89.5	SL	0.25 % v/v	A	Broadcast	PREPRE		15 GAL/AC		23.66 mL/mx				
	Liberty	2.34	SL	595 g ai/ha	C	See and Spray	EPOST		15 GAL/AC		142.9 mL/mx				
	Roundup Powermax 3	4.8	SL	1260 g ae/ha	C	See and Spray	EPOST		15 GAL/AC		147.5 mL/mx				
	Dual Magnum	7.62	EC	1390 g ai/ha	D	Broadcast	EPOST		10 GAL/AC		153.8 mL/mx				
	Preference	89.5	SL	0.25 % v/v	D	Broadcast	EPOST		10 GAL/AC		23.66 mL/mx				
	Liberty	2.34	SL	595 g ai/ha	F	See and Spray	MPOST		15 GAL/AC		142.9 mL/mx				
	Preference	89.5	SL	0.25 % v/v	F	See and Spray	MPOST		15 GAL/AC		23.66 mL/mx				
	Liberty	2.34	SL	595 g ai/ha	H	See and Spray	LPOST		15 GAL/AC		142.9 mL/mx				
	Roundup Powermax 3	4.8	SL	1260 g ae/ha	H	See and Spray	LPOST		15 GAL/AC		147.5 mL/mx				
	Dual Magnum	7.62	EC	1390 g ai/ha	I	Broadcast	LPOST		10 GAL/AC		153.8 mL/mx				
	Preference	89.5	SL	0.25 % v/v	I	Broadcast	LPOST		10 GAL/AC		23.66 mL/mx				

University of Tennessee

BRT-23-140: Integration of Single/Dual Tank and Sensitivity Levels in Cotton

Trial ID: BRT-23-140
 Protocol ID: BRT-23-140 Location: Trial Year: 2023
 Project ID: Project ID 2: Project ID 3:
 Study Director: Michael Houston Sponsor Contact: William Patzoldt
 Investigator: Larry Steckel

Reps: 4 Plots: 12.7 by 70 feet
 Mix Size: 2.5 GAL

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	Appl Description	Appl Timing	Appl Amount	Amount Unit	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
7	Brake	1.2	SL	168 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		78.69 mL/mx	107	210	305	412
	Cotoran	4	F	840 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		118.0 mL/mx				
	Gramoxone	3	SL	716 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		134.1 mL/mx				
	Preference	89.5	SL	0.25 % v/v	A	Broadcast	PREPRE		15 GAL/AC		23.66 mL/mx				
	Liberty	2.34	SL	595 g ai/ha	C	See and Spray	EPOST		15 GAL/AC		142.9 mL/mx				
	Roundup Powermax 3	4.8	SL	1260 g ae/ha	C	See and Spray	EPOST		15 GAL/AC		147.5 mL/mx				
	Liberty	2.34	SL	595 g ai/ha	F	See and Spray	MPOST		15 GAL/AC		142.9 mL/mx				
	Preference	89.5	SL	0.25 % v/v	F	See and Spray	MPOST		15 GAL/AC		23.66 mL/mx				
	Liberty	2.34	SL	595 g ai/ha	H	See and Spray	LPOST		15 GAL/AC		142.9 mL/mx				
	Roundup Powermax 3	4.8	SL	1260 g ae/ha	H	See and Spray	LPOST		15 GAL/AC		147.5 mL/mx				
8	Brake	1.2	SL	168 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		78.69 mL/mx	108	202	304	409
	Cotoran	4	F	840 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		118.0 mL/mx				
	Gramoxone	3	SL	716 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		134.1 mL/mx				
	Preference	89.5	SL	0.25 % v/v	A	Broadcast	PREPRE		15 GAL/AC		23.66 mL/mx				
	Liberty	2.34	SL	595 g ai/ha	C	See and Spray	EPOST		15 GAL/AC		142.9 mL/mx				
	Roundup Powermax 3	4.8	SL	1260 g ae/ha	C	See and Spray	EPOST		15 GAL/AC		147.5 mL/mx				
	Dual Magnum	7.62	EC	1390 g ai/ha	C	See and Spray	EPOST		15 GAL/AC		102.5 mL/mx				
	Liberty	2.34	SL	595 g ai/ha	F	See and Spray	MPOST		15 GAL/AC		142.9 mL/mx				
	Preference	89.5	SL	0.25 % v/v	F	See and Spray	MPOST		15 GAL/AC		23.66 mL/mx				
	Liberty	2.34	SL	595 g ai/ha	H	See and Spray	LPOST		15 GAL/AC		142.9 mL/mx				
9	Brake	1.2	SL	168 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		78.69 mL/mx	109	211	309	411
	Cotoran	4	F	840 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		118.0 mL/mx				
	Gramoxone	3	SL	716 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		134.1 mL/mx				
	Preference	89.5	SL	0.25 % v/v	A	Broadcast	PREPRE		15 GAL/AC		23.66 mL/mx				
	Liberty	2.34	SL	595 g ai/ha	C	See and Spray	EPOST		15 GAL/AC		142.9 mL/mx				
	Roundup Powermax 3	4.8	SL	1260 g ae/ha	C	See and Spray	EPOST		15 GAL/AC		147.5 mL/mx				
	Dual Magnum	7.62	EC	1390 g ai/ha	D	Broadcast	EPOST		10 GAL/AC		153.8 mL/mx				
	Preference	89.5	SL	0.25 % v/v	D	Broadcast	EPOST		10 GAL/AC		23.66 mL/mx				
	Liberty	2.34	SL	595 g ai/ha	F	See and Spray	MPOST		15 GAL/AC		142.9 mL/mx				
	Preference	89.5	SL	0.25 % v/v	F	See and Spray	MPOST		15 GAL/AC		23.66 mL/mx				
10	Brake	1.2	SL	168 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		78.69 mL/mx	110	208	302	403
	Cotoran	4	F	840 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		118.0 mL/mx				
	Gramoxone	3	SL	716 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		134.1 mL/mx				
	Preference	89.5	SL	0.25 % v/v	A	Broadcast	PREPRE		15 GAL/AC		23.66 mL/mx				
	Liberty	2.34	SL	595 g ai/ha	C	See and Spray	EPOST		15 GAL/AC		142.9 mL/mx				
	Roundup Powermax 3	4.8	SL	1260 g ae/ha	C	See and Spray	EPOST		15 GAL/AC		147.5 mL/mx				
	Liberty	2.34	SL	595 g ai/ha	F	See and Spray	MPOST		15 GAL/AC		142.9 mL/mx				
	Preference	89.5	SL	0.25 % v/v	F	See and Spray	MPOST		15 GAL/AC		23.66 mL/mx				
	Liberty	2.34	SL	595 g ai/ha	H	See and Spray	LPOST		15 GAL/AC		142.9 mL/mx				
	Roundup Powermax 3	4.8	SL	1260 g ae/ha	H	See and Spray	LPOST		15 GAL/AC		147.5 mL/mx				
11	Brake	1.2	SL	168 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		78.69 mL/mx	111	205	310	401
	Cotoran	4	F	840 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		118.0 mL/mx				
	Gramoxone	3	SL	716 g ai/ha	A	Broadcast	PREPRE		15 GAL/AC		134.1 mL/mx				
	Preference	89.5	SL	0.25 % v/v	A	Broadcast	PREPRE		15 GAL/AC		23.66 mL/mx				
	Liberty	2.34	SL	595 g ai/ha	C	See and Spray	EPOST		15 GAL/AC		142.9 mL/mx				
	Roundup Powermax 3	4.8	SL	1260 g ae/ha	C	See and Spray	EPOST		15 GAL/AC		147.5 mL/mx				
	Dual Magnum	7.62	EC	1390 g ai/ha	C	See and Spray	EPOST		15 GAL/AC		102.5 mL/mx				
	Liberty	2.34	SL	595 g ai/ha	F	See and Spray	MPOST		15 GAL/AC		142.9 mL/mx				
	Preference	89.5	SL	0.25 % v/v	F	See and Spray	MPOST		15 GAL/AC		23.66 mL/mx				
	Liberty	2.34	SL	595 g ai/ha	H	See and Spray	LPOST		15 GAL/AC		142.9 mL/mx				

University of Tennessee

BRT-23-140: Integration of Single/Dual Tank and Sensitivity Levels in Cotton

Trial ID: BRT-23-140
 Protocol ID: BRT-23-140 Location: Trial Year: 2023
 Project ID: Project ID 2: Project ID 3:
 Study Director: Michael Houston Sponsor Contact: William Patzoldt
 Investigator: Larry Steckel

Reps: 4 Plots: 12.7 by 70 feet
 Mix Size: 2.5 GAL

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Appl Code	Appl Description	Appl Timing	Appl Amount	Amount Unit	Amt Product to Measure	Rep			
												1	2	3	4
12	Brake	1.2	SL	168	g ai/ha	A	Broadcast	PREPRE	15	GAL/AC	78.69 mL/mx	112	213	308	406
	Cotoran	4	F	840	g ai/ha	A	Broadcast	PREPRE	15	GAL/AC	118.0 mL/mx				
	Gramoxone	3	SL	716	g ai/ha	A	Broadcast	PREPRE	15	GAL/AC	134.1 mL/mx				
	Preference	89.5	SL	0.25	% v/v	A	Broadcast	PREPRE	15	GAL/AC	23.66 mL/mx				
	Liberty	2.34	SL	595	g ai/ha	C	See and Spray	EPOST	15	GAL/AC	142.9 mL/mx				
	Roundup Powermax 3	4.8	SL	1260	g ae/ha	C	See and Spray	EPOST	15	GAL/AC	147.5 mL/mx				
	Dual Magnum	7.62	EC	1390	g ai/ha	D	Broadcast	EPOST	10	GAL/AC	153.8 mL/mx				
	Preference	89.5	SL	0.25	% v/v	D	Broadcast	EPOST	10	GAL/AC	23.66 mL/mx				
	Liberty	2.34	SL	595	g ai/ha	F	See and Spray	MPOST	15	GAL/AC	142.9 mL/mx				
	Preference	89.5	SL	0.25	% v/v	F	See and Spray	MPOST	15	GAL/AC	23.66 mL/mx				
	Liberty	2.34	SL	595	g ai/ha	H	See and Spray	LPOST	15	GAL/AC	142.9 mL/mx				
	Roundup Powermax 3	4.8	SL	1260	g ae/ha	H	See and Spray	LPOST	15	GAL/AC	147.5 mL/mx				
	Dual Magnum	7.62	EC	1390	g ai/ha	I	Broadcast	LPOST	10	GAL/AC	153.8 mL/mx				
	Preference	89.5	SL	0.25	% v/v	I	Broadcast	LPOST	10	GAL/AC	23.66 mL/mx				
13	Brake	1.2	SL	168	g ai/ha	A	Broadcast	PREPRE	15	GAL/AC	78.69 mL/mx	113	204	303	410
	Cotoran	4	F	840	g ai/ha	A	Broadcast	PREPRE	15	GAL/AC	118.0 mL/mx				
	Gramoxone	3	SL	716	g ai/ha	A	Broadcast	PREPRE	15	GAL/AC	134.1 mL/mx				
	Preference	89.5	SL	0.25	% v/v	A	Broadcast	PREPRE	15	GAL/AC	23.66 mL/mx				
	Roundup Powermax 3	4.8	SL	1260	g ae/ha	B	Broadcast	EPOST	15	GAL/AC	147.5 mL/mx				
	Weedfree					B	Broadcast	EPOST							
	Roundup Powermax 3	4.8	SL	1260	g ae/ha	E	Broadcast	MPOST	15	GAL/AC	147.5 mL/mx				
	Weedfree					E	Broadcast	MPOST							
	Roundup Powermax 3	4.8	SL	1260	g ae/ha	G	Broadcast	LPOST	15	GAL/AC	147.5 mL/mx				
	Weedfree					G	Broadcast	LPOST							

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
1,180.338	mL	Brake	1.2	LBA/GAL	SL	
1,770.507	mL	Cotoran	4	LBA/GAL	F	
2,012.196	mL	Gramoxone	3	LBA/GAL	SL	
828.059	mL	Preference	89.5	%	SL	
5,359.440	mL	Liberty	2.34	LBA/GAL	SL	
4,241.840	mL	Roundup Powermax 3	4.8	LBAE/GAL	SL	
2,178.743	mL	Dual Magnum	7.62	LBA/GAL	EC	

* 'Per area' calculations based on application amount= 15,10 GAL/AC, mix size= 2.5 GAL (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15,10 GAL/AC, mix size= 2.5 GAL.

University of Tennessee

Type PG Year Cty Pl.No. Ver. Rev. Cty Reg No.
 Trial ID: MKD H 2023 US F64 A 05.0 US UTN 001 GEP:
 Title: ALITE 27 / AXANT FLEX WEED CONTROL SYSTEM 3D Crop/LWA: N No
 GEP Guideline: Crop Destruct Required?: F Full / yes
 Short Trial ID: H23F64A-UTN001 Licensee: Dr. Larry Steckel

Reps: 4 Plots: 6.33 by 30 feet
 Appl. Amount: 20 GAL/AC Mix Size: 2 L (total for 4 plots; minimum=1.32 L)

Trt	Product/Entry Name	Form Conc	Product FO	Prod Rate	Unit	Appl Code	Appl Time	Amt Product to Measure	Rep			
									1	2	3	4
1	CHECK								101	213	302	415
2	ALITE 27	486.0	SC	3.0 fl oz/a	A	VL		2.343 mL/mx	102	204	311	405
	PROWL H2O	455.0	CS	33.6 fl oz/a	A	VL		26.25 mL/mx				
3	COTORAN 4 L	480.0	SC	16.0 fl oz/a	B	VA		12.5 mL/mx	103	208	306	404
4	ALITE 27	486.0	SC	3.0 fl oz/a	B	VA		2.343 mL/mx	104	212	314	416
5	ALITE 27	486.0	SC	3.0 fl oz/a	B	VA		2.343 mL/mx	105	211	315	402
	COTORAN 4 L	480.0	SC	16.0 fl oz/a	B	VA		12.5 mL/mx				
6	ALITE 27	486.0	SC	3.0 fl oz/a	B	VA		2.343 mL/mx	106	201	310	413
	BRAKE	144.0	SL	16.0 fl oz/a	B	VA		12.5 mL/mx				
7	ENGENIA	600.0	SL	12.8 fl oz/a	C	NA2		9.999 mL/mx	107	202	309	411
	ROUNDUP POWERMAX3	575.0	SL	32.0 fl oz/a	C	NA2		25.0 mL/mx				
	SENTRIS	703.0	SL	8.0 fl oz/a	C	NA2		6.249 mL/mx				
8	COTORAN 4 L	480.0	SC	16.0 fl oz/a	B	VA		12.5 mL/mx	108	209	301	408
	ENGENIA	600.0	SL	12.8 fl oz/a	C	NA2		9.999 mL/mx				
	ROUNDUP POWERMAX3	575.0	SL	32.0 fl oz/a	C	NA2		25.0 mL/mx				
	SENTRIS	703.0	SL	8.0 fl oz/a	C	NA2		6.249 mL/mx				
9	COTORAN 4 L	480.0	SC	16.0 fl oz/a	B	VA		12.5 mL/mx	109	215	316	412
	ENGENIA	600.0	SL	12.8 fl oz/a	C	NA2		9.999 mL/mx				
	ROUNDUP POWERMAX3	575.0	SL	32.0 fl oz/a	C	NA2		25.0 mL/mx				
	ALITE 27	486.0	SC	3.0 fl oz/a	C	NA2		2.343 mL/mx				
	SENTRIS	703.0	SL	8.0 fl oz/a	C	NA2		6.249 mL/mx				
10	LIBERTY 280 SL	281.8	SL	32.0 fl oz/a	C	NA2		25.0 mL/mx	110	205	307	401
	ROUNDUP POWERMAX3	575.0	SL	32.0 fl oz/a	C	NA2		25.0 mL/mx				
	AMMONIUM SULFATE (21% N)	100.0	SG	1.5 lb/a	C	NA2		17.97 g/mx				
11	COTORAN 4 L	480.0	SC	16.0 fl oz/a	B	VA		12.5 mL/mx	111	216	303	406
	LIBERTY 280 SL	281.8	SL	32.0 fl oz/a	C	NA2		25.0 mL/mx				
	ROUNDUP POWERMAX3	575.0	SL	32.0 fl oz/a	C	NA2		25.0 mL/mx				
	AMMONIUM SULFATE (21% N)	100.0	SG	1.5 lb/a	C	NA2		17.97 g/mx				
12	COTORAN 4 L	480.0	SC	16.0 fl oz/a	B	VA		12.5 mL/mx	112	206	313	410
	LIBERTY 280 SL	281.8	SL	32.0 fl oz/a	C	NA2		25.0 mL/mx				
	ROUNDUP POWERMAX3	575.0	SL	32.0 fl oz/a	C	NA2		25.0 mL/mx				
	ALITE 27	486.0	SC	3.0 fl oz/a	C	NA2		2.343 mL/mx				
	AMMONIUM SULFATE (21% N)	100.0	SG	1.5 lb/a	C	NA2		17.97 g/mx				
13	COTORAN 4 L	480.0	SC	16.0 fl oz/a	B	VA		12.5 mL/mx	113	210	305	407
	ALITE 27	486.0	SC	3.0 fl oz/a	B	VA		2.343 mL/mx				
	ENGENIA	600.0	SL	12.8 fl oz/a	C	NA2		9.999 mL/mx				
	ROUNDUP POWERMAX3	575.0	SL	32.0 fl oz/a	C	NA2		25.0 mL/mx				
	OUTLOOK	720.0	EC	12.8 fl oz/a	C	NA2		9.999 mL/mx				
	SENTRIS	703.0	SL	8.0 fl oz/a	C	NA2		6.249 mL/mx				
14	COTORAN 4 L	480.0	SC	16.0 fl oz/a	B	VA		12.5 mL/mx	114	207	304	414
	ALITE 27	486.0	SC	2.0 fl oz/a	B	VA		1.562 mL/mx				
	LIBERTY 280 SL	281.8	SL	32.0 fl oz/a	C	NA2		25.0 mL/mx				
	ROUNDUP POWERMAX3	575.0	SL	32.0 fl oz/a	C	NA2		25.0 mL/mx				
	OUTLOOK	720.0	EC	12.8 fl oz/a	C	NA2		9.999 mL/mx				
	AMMONIUM SULFATE (21% N)	100.0	SG	1.5 lb/a	C	NA2		17.97 g/mx				
15	COTORAN 4 L	480.0	SC	16.0 fl oz/a	B	VA		12.5 mL/mx	115	214	308	409
	ALITE 27	486.0	SC	2.0 fl oz/a	B	VA		1.562 mL/mx				
	ENGENIA	600.0	SL	12.8 fl oz/a	C	NA2		9.999 mL/mx				
	ROUNDUP POWERMAX3	575.0	SL	32.0 fl oz/a	C	NA2		25.0 mL/mx				
	OUTLOOK	720.0	EC	12.8 fl oz/a	C	NA2		9.999 mL/mx				
	SENTRIS	703.0	SL	8.0 fl oz/a	C	NA2		6.249 mL/mx				
	LIBERTY 280 SL	281.8	SL	32.0 fl oz/a	D	NA3		25.0 mL/mx				
	ROUNDUP POWERMAX3	575.0	SL	32.0 fl oz/a	D	NA3		25.0 mL/mx				
	AMMONIUM SULFATE (21% N)	100.0	SG	1.5 lb/a	D	NA3		17.97 g/mx				

University of Tennessee

Type PG Year Cty Pl.No. Ver. Rev. Cty Reg No. Trial ID: MKD H 2023 US F64 A 05.0 US UTN 001 GEP: Title: ALITE 27 / AXANT FLEX WEED CONTROL SYSTEM GEP Guideline: Short Trial ID: H23F64A-UTN001 Licensee: Dr. Larry Steckel	3D Crop/LWA: N No Crop Destruct Required?: F Full / yes
---	--

Reps: 4 Plots: 6.33 by 30 feet
 Appl. Amount: 20 GAL/AC Mix Size: 2 L (total for 4 plots; minimum=1.32 L)

Trt	Product/Entry Name	Form Conc	Product FO Rate	Prod Unit	Appl Code	Appl Time	Amt Product to Measure	Rep			
								1	2	3	4
16	COTORAN 4 L	480.0	SC	16.0 fl oz/a	B	VA	12.5 mL/mx	116	203	312	403
	ALITE 27	486.0	SC	2.0 fl oz/a	B	VA	1.562 mL/mx				
	ENGENIA	600.0	SL	12.8 fl oz/a	C	NA2	9.999 mL/mx				
	ROUNDUP POWERMAX3	575.0	SL	32.0 fl oz/a	C	NA2	25.0 mL/mx				
	OUTLOOK	720.0	EC	12.8 fl oz/a	C	NA2	9.999 mL/mx				
	SENTRIS	703.0	SL	8.0 fl oz/a	C	NA2	6.249 mL/mx				
	LIBERTY 280 SL	281.8	SL	32.0 fl oz/a	D	NA3	25.0 mL/mx				
	ROUNDUP POWERMAX3	575.0	SL	32.0 fl oz/a	D	NA3	25.0 mL/mx				
	AMMONIUM SULFATE (21% N)	100.0	SG	1.5 lb/a	D	NA3	17.97 g/mx				
	ZIDUA SC	500.0	SC	3.25 fl oz/a	E	NA4					
AMMONSULFAT + DCD	24.34	GR	250.0 lb/a	E	NA4						

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Code Com+Number+Recipe Code+P	Product/Entry Name	Form Conc	Conc Unit	FO	Batch/Lot Num / Seedlot
26.364	mL	BAS102001H	ALITE 27	486.0	GA/L	SC	
32.809	mL	BAS45548H	PROWL H2O	455.0	GA/L	CS	
156.233	mL	BAS28502H	COTORAN 4 L	480	GA/L	SC	
15.623	mL	BAS94722H	BRAKE	144	GA/L	SL	
74.992	mL	BAS18322H	ENGENIA	600	GA/L	SL	
374.959	mL	BAS68334H	ROUNDUP POWERMAX3	575	GA/L	SL	
46.870	mL	BAS92961S	SENTRIS	703	GA/L	SL	
187.480	mL	BAS100025H	LIBERTY 280 SL	281.8	GA/L	SL	
134.804	g	BAS22000S	AMMONIUM SULFATE (21% N)	100.0	%	SG	
49.995	mL	BAS65611H	OUTLOOK	720.0	GA/L	EC	

* 'Per area' calculations based on application amount= 20 GAL/AC, mix size= 2 L (mix size basis).
 * Product amount calculations increased 25 % for overage adjustment.

University of Tennessee

BRT-23-122: Nozzle evaluation for glufosinate in soybean production

Trial ID: BRT-23-122
 Protocol ID: BRT-23-122 Location: Jackson, TN Trial Year: 2023
 Project ID: BRT-Shasta-Small-Plot Project ID 2: Project ID 3:
 Study Director: Lauren Lazaro Sponsor Contact:
 Investigator: Larry Steckel

Reps: 4 Plots: 12.7 by 70 feet
 Mix Size: 2.5 GAL

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Form Unit	Appl Code	Appl Description	Appl Timing	Appl Amount	Appl Unit	Amt to Measure	Product	Rep 1	Rep 2	Rep 3	Rep 4
1	Untreated Check												101	210	306	408
2	Tendovo	4.18	ZC	2350 g ai/ha	A	BC		PRE	15 GAL/AC		316.0 mL/mx		102	203	309	411
	Gramoxone	3	SL	716 g ai/ha	A	BC		PRE	15 GAL/AC		134.1 mL/mx					
	Preference	89.5	SL	0.25 % v/v	A	BC		PRE	15 GAL/AC		23.66 mL/mx					
3	Tendovo	4.18	ZC	2350 g ai/ha	A	BC		PRE	15 GAL/AC		316.0 mL/mx		103	212	303	405
	Gramoxone	3	SL	716 g ai/ha	A	BC		PRE	15 GAL/AC		134.1 mL/mx					
	Preference	89.5	SL	0.25 % v/v	A	BC		PRE	15 GAL/AC		23.66 mL/mx					
	Liberty	2.34	SL	657 g ai/ha	B	BC		POST1	15 GAL/AC		157.8 mL/mx					
	Dual Magnum	7.62	EC	1390 g ai/ha	B	BC		POST1	15 GAL/AC		102.5 mL/mx					
	Preference	89.5	SL	0.25 % v/v	B	BC		POST1	15 GAL/AC		23.66 mL/mx					
	Super Signal Blue	100	SL	0.25 % v/v	B	BC		POST1	15 GAL/AC		23.66 mL/mx					
	Liberty	2.34	SL	657 g ai/ha	F	BC		POST2	15 GAL/AC		157.8 mL/mx					
	Preference	89.5	SL	0.25 % v/v	F	BC		POST2	15 GAL/AC		23.66 mL/mx					
	Super Signal Blue	100	SL	0.25 % v/v	F	BC		POST2	15 GAL/AC		23.66 mL/mx					
4	Tendovo	4.18	ZC	2350 g ai/ha	A	BC		PRE	15 GAL/AC		316.0 mL/mx		104	205	310	406
	Gramoxone	3	SL	716 g ai/ha	A	BC		PRE	15 GAL/AC		134.1 mL/mx					
	Preference	89.5	SL	0.25 % v/v	A	BC		PRE	15 GAL/AC		23.66 mL/mx					
	Dual Magnum	7.62	EC	1390 g ai/ha	C	BC		POST1	10 GAL/AC		153.8 mL/mx					
	Preference	89.5	SL	0.25 % v/v	C	BC		POST1	10 GAL/AC		23.66 mL/mx					
	Liberty	2.34	SL	657 g ai/ha	D	SS		POST1	15 GAL/AC		157.8 mL/mx					
	Preference	89.5	SL	0.25 % v/v	D	SS		POST1	15 GAL/AC		23.66 mL/mx					
	Super Signal Blue	100	SL	0.25 % v/v	D	SS		POST1	15 GAL/AC		23.66 mL/mx					
	Liberty	2.34	SL	657 g ai/ha	G	SS		POST2	15 GAL/AC		157.8 mL/mx					
	Preference	89.5	SL	0.25 % v/v	G	SS		POST2	15 GAL/AC		23.66 mL/mx					
5	Tendovo	4.18	ZC	2350 g ai/ha	A	BC		PRE	15 GAL/AC		316.0 mL/mx		105	206	304	403
	Gramoxone	3	SL	716 g ai/ha	A	BC		PRE	15 GAL/AC		134.1 mL/mx					
	Preference	89.5	SL	0.25 % v/v	A	BC		PRE	15 GAL/AC		23.66 mL/mx					
	Dual Magnum	7.62	EC	1390 g ai/ha	C	BC		POST1	10 GAL/AC		153.8 mL/mx					
	Preference	89.5	SL	0.25 % v/v	C	BC		POST1	10 GAL/AC		23.66 mL/mx					
	Liberty	2.34	SL	657 g ai/ha	D	SS		POST1	15 GAL/AC		157.8 mL/mx					
	Preference	89.5	SL	0.25 % v/v	D	SS		POST1	15 GAL/AC		23.66 mL/mx					
	Super Signal Blue	100	SL	0.25 % v/v	D	SS		POST1	15 GAL/AC		23.66 mL/mx					
	Liberty	2.34	SL	657 g ai/ha	G	SS		POST2	15 GAL/AC		157.8 mL/mx					
	Preference	89.5	SL	0.25 % v/v	G	SS		POST2	15 GAL/AC		23.66 mL/mx					
6	Tendovo	4.18	ZC	2350 g ai/ha	A	BC		PRE	15 GAL/AC		316.0 mL/mx		106	204	312	402
	Gramoxone	3	SL	716 g ai/ha	A	BC		PRE	15 GAL/AC		134.1 mL/mx					
	Preference	89.5	SL	0.25 % v/v	A	BC		PRE	15 GAL/AC		23.66 mL/mx					
	Liberty	2.34	SL	657 g ai/ha	B	BC		POST1	15 GAL/AC		157.8 mL/mx					
	Dual Magnum	7.62	EC	1390 g ai/ha	B	BC		POST1	15 GAL/AC		102.5 mL/mx					
	Preference	89.5	SL	0.25 % v/v	B	BC		POST1	15 GAL/AC		23.66 mL/mx					
	Super Signal Blue	100	SL	0.25 % v/v	B	BC		POST1	15 GAL/AC		23.66 mL/mx					
	Liberty	2.34	SL	657 g ai/ha	F	BC		POST2	15 GAL/AC		157.8 mL/mx					
	Preference	89.5	SL	0.25 % v/v	F	BC		POST2	15 GAL/AC		23.66 mL/mx					
	Super Signal Blue	100	SL	0.25 % v/v	F	BC		POST2	15 GAL/AC		23.66 mL/mx					
7	Tendovo	4.18	ZC	2350 g ai/ha	A	BC		PRE	15 GAL/AC		316.0 mL/mx		107	201	308	407
	Gramoxone	3	SL	716 g ai/ha	A	BC		PRE	15 GAL/AC		134.1 mL/mx					
	Preference	89.5	SL	0.25 % v/v	A	BC		PRE	15 GAL/AC		23.66 mL/mx					
	Dual Magnum	7.62	EC	1390 g ai/ha	C	BC		POST1	10 GAL/AC		153.8 mL/mx					
	Preference	89.5	SL	0.25 % v/v	C	BC		POST1	10 GAL/AC		23.66 mL/mx					
	Liberty	2.34	SL	657 g ai/ha	D	SS		POST1	15 GAL/AC		157.8 mL/mx					
	Preference	89.5	SL	0.25 % v/v	D	SS		POST1	15 GAL/AC		23.66 mL/mx					
	Super Signal Blue	100	SL	0.25 % v/v	D	SS		POST1	15 GAL/AC		23.66 mL/mx					
	Liberty	2.34	SL	657 g ai/ha	G	SS		POST2	15 GAL/AC		157.8 mL/mx					
	Preference	89.5	SL	0.25 % v/v	G	SS		POST2	15 GAL/AC		23.66 mL/mx					
Super Signal Blue	100	SL	0.25 % v/v	G	SS		POST2	15 GAL/AC		23.66 mL/mx						

University of Tennessee

BRT-23-122: Nozzle evaluation for glufosinate in soybean production

Trial ID: BRT-23-122
 Protocol ID: BRT-23-122 Location: Jackson, TN Trial Year: 2023
 Project ID: BRT-Shasta-Small-Plot Project ID 2: Project ID 3:
 Study Director: Lauren Lazaro Sponsor Contact:
 Investigator: Larry Steckel

Reps: 4 Plots: 12.7 by 70 feet
 Mix Size: 2.5 GAL

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Form Unit	Rate Unit	Appl Code	Appl Description	Appl Timing	Appl Amount	Appl Unit	Amt to Measure	Product	Rep 1	Rep 2	Rep 3	Rep 4
8	Tendovo	4.18	ZC	2350 g ai/ha	A	BC	PRE	15 GAL/AC	316.0 mL/mx	108	202	305	409				
	Gramoxone	3	SL	716 g ai/ha	A	BC	PRE	15 GAL/AC	134.1 mL/mx								
	Preference	89.5	SL	0.25 % v/v	A	BC	PRE	15 GAL/AC	23.66 mL/mx								
	Dual Magnum	7.62	EC	1390 g ai/ha	C	BC	POST1	10 GAL/AC	153.8 mL/mx								
	Preference	89.5	SL	0.25 % v/v	C	BC	POST1	10 GAL/AC	23.66 mL/mx								
	Liberty	2.34	SL	657 g ai/ha	D	SS	POST1	15 GAL/AC	157.8 mL/mx								
	Preference	89.5	SL	0.25 % v/v	D	SS	POST1	15 GAL/AC	23.66 mL/mx								
	Super Signal Blue	100	SL	0.25 % v/v	D	SS	POST1	15 GAL/AC	23.66 mL/mx								
	Liberty	2.34	SL	657 g ai/ha	G	SS	POST2	15 GAL/AC	157.8 mL/mx								
	Preference	89.5	SL	0.25 % v/v	G	SS	POST2	15 GAL/AC	23.66 mL/mx								
Super Signal Blue	100	SL	0.25 % v/v	G	SS	POST2	15 GAL/AC	23.66 mL/mx									
9	Tendovo	4.18	ZC	2350 g ai/ha	A	BC	PRE	15 GAL/AC	316.0 mL/mx	109	207	311	410				
	Gramoxone	3	SL	716 g ai/ha	A	BC	PRE	15 GAL/AC	134.1 mL/mx								
	Preference	89.5	SL	0.25 % v/v	A	BC	PRE	15 GAL/AC	23.66 mL/mx								
	Liberty	2.34	SL	657 g ai/ha	B	BC	POST1	15 GAL/AC	157.8 mL/mx								
	Dual Magnum	7.62	EC	1390 g ai/ha	B	BC	POST1	15 GAL/AC	102.5 mL/mx								
	Preference	89.5	SL	0.25 % v/v	B	BC	POST1	15 GAL/AC	23.66 mL/mx								
	Super Signal Blue	100	SL	0.25 % v/v	B	BC	POST1	15 GAL/AC	23.66 mL/mx								
	Liberty	2.34	SL	657 g ai/ha	F	BC	POST2	15 GAL/AC	157.8 mL/mx								
	Preference	89.5	SL	0.25 % v/v	F	BC	POST2	15 GAL/AC	23.66 mL/mx								
	Super Signal Blue	100	SL	0.25 % v/v	F	BC	POST2	15 GAL/AC	23.66 mL/mx								
10	Tendovo	4.18	ZC	2350 g ai/ha	A	BC	PRE	15 GAL/AC	316.0 mL/mx	110	209	301	412				
	Gramoxone	3	SL	716 g ai/ha	A	BC	PRE	15 GAL/AC	134.1 mL/mx								
	Preference	89.5	SL	0.25 % v/v	A	BC	PRE	15 GAL/AC	23.66 mL/mx								
	Dual Magnum	7.62	EC	1390 g ai/ha	C	BC	POST1	10 GAL/AC	153.8 mL/mx								
	Preference	89.5	SL	0.25 % v/v	C	BC	POST1	10 GAL/AC	23.66 mL/mx								
	Liberty	2.34	SL	657 g ai/ha	D	SS	POST1	15 GAL/AC	157.8 mL/mx								
	Preference	89.5	SL	0.25 % v/v	D	SS	POST1	15 GAL/AC	23.66 mL/mx								
	Super Signal Blue	100	SL	0.25 % v/v	D	SS	POST1	15 GAL/AC	23.66 mL/mx								
	Liberty	2.34	SL	657 g ai/ha	G	SS	POST2	15 GAL/AC	157.8 mL/mx								
	Preference	89.5	SL	0.25 % v/v	G	SS	POST2	15 GAL/AC	23.66 mL/mx								
Super Signal Blue	100	SL	0.25 % v/v	G	SS	POST2	15 GAL/AC	23.66 mL/mx									
11	Tendovo	4.18	ZC	2350 g ai/ha	A	BC	PRE	15 GAL/AC	316.0 mL/mx	111	208	307	401				
	Gramoxone	3	SL	716 g ai/ha	A	BC	PRE	15 GAL/AC	134.1 mL/mx								
	Preference	89.5	SL	0.25 % v/v	A	BC	PRE	15 GAL/AC	23.66 mL/mx								
	Dual Magnum	7.62	EC	1390 g ai/ha	C	BC	POST1	10 GAL/AC	153.8 mL/mx								
	Preference	89.5	SL	0.25 % v/v	C	BC	POST1	10 GAL/AC	23.66 mL/mx								
	Liberty	2.34	SL	657 g ai/ha	D	SS	POST1	15 GAL/AC	157.8 mL/mx								
	Preference	89.5	SL	0.25 % v/v	D	SS	POST1	15 GAL/AC	23.66 mL/mx								
	Super Signal Blue	100	SL	0.25 % v/v	D	SS	POST1	15 GAL/AC	23.66 mL/mx								
	Liberty	2.34	SL	657 g ai/ha	G	SS	POST2	15 GAL/AC	157.8 mL/mx								
	Preference	89.5	SL	0.25 % v/v	G	SS	POST2	15 GAL/AC	23.66 mL/mx								
Super Signal Blue	100	SL	0.25 % v/v	G	SS	POST2	15 GAL/AC	23.66 mL/mx									
12	Tendovo	4.18	ZC	2350 g ai/ha	A	BC	PRE	15 GAL/AC	316.0 mL/mx	112	211	302	404				
	Gramoxone	3	SL	716 g ai/ha	A	BC	PRE	15 GAL/AC	134.1 mL/mx								
	Preference	89.5	SL	0.25 % v/v	A	BC	PRE	15 GAL/AC	23.66 mL/mx								
	Roundup Powermax 3	4.8	SL	1260 g ae/ha	E	SS	POST1	15 GAL/AC	147.5 mL/mx								
	Roundup Powermax 3	4.8	SL	1260 g ae/ha	H	SS	POST2	15 GAL/AC	147.5 mL/mx								

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
4,344.917	mL	Tendovo	4.18	LBA/GAL	ZC	
1,844.513	mL	Gramoxone	3	LBA/GAL	SL	
1,035.074	mL	Preference	89.5	%	SL	
3,550.743	mL	Liberty	2.34	LBA/GAL	SL	
1,537.936	mL	Dual Magnum	7.62	LBA/GAL	EC	

University of Tennessee

BRT-23-122: Nozzle evaluation for glufosinate in soybean production

Trial ID: BRT-23-122
 Protocol ID: BRT-23-122 Location: Jackson, TN Trial Year: 2023
 Project ID: BRT-Shasta-Small-Plot Project ID 2: Project ID 3:
 Study Director: Lauren Lazaro Sponsor Contact:
 Investigator: Larry Steckel

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
532.324	mL	Super Signal Blue	100	%	SL	
368.856	mL	Roundup Powermax 3	4.8	LBAE/GAL	SL	

* 'Per area' calculations based on application amount= 15,10 GAL/AC, mix size= 2.5 GAL (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15,10 GAL/AC, mix size= 2.5 GAL.

University of Tennessee

Valent Actives in a Enlist Duo System - Reduced Tillage

Trial ID: VUSA2023MEVER025_1 Cooperator Trial ID:
 Protocol ID: VUSA2023FIERCEMD64.04 Trial Year: 2023
 Project ID: Project ID 2: Project ID 3:
 Sponsor Contact:
 Investigator: Steckel, Larry

Reps: 4		Plots: 5 by 30 feet		Mix Size: 2 L (total for 4 plots; minimum=0.782 L)								
Appl. Amount: 15 GAL/AC												
Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Appl Code	Appl Description	Appl Timing	Amt to Measure	Rep 1	Rep 2	Rep 3	Rep 4
1	ENLIST ONE	3.8	SL	1 qt/a	A		PREPOS	33.33 mL/mx	101	203	304	405
	ROUNDUP POWER MAX(S)	5.5	SL	1 qt/a	A		PREPOS	33.33 mL/mx				
	FIERCE EZ (2065)	3.04	SC	6 fl oz/a	A		PREPOS	6.25 mL/mx				
	INDUCE	100	SF	0.25 % v/v	A		PREPOS	4.999 g/mx				
	ENLIST ONE	3.8	SL	1 qt/a	B		POSPOS	33.33 mL/mx				
	ROUNDUP POWER MAX(S)	5.5	SL	1 qt/a	B		POSPOS	33.33 mL/mx				
	PERPETUO	2.3	SC	6 fl oz/a	B		POSPOS	6.25 mL/mx				
	DRY AMMONIUM SULFATE	100	SG	8.5 lb/100 gal	B		POSPOS	20.37 g/mx				
	INDUCE	100	SF	0.25 % v/v	B		POSPOS	4.999 g/mx				
2	ENLIST ONE	3.8	SL	1 qt/a	A		PREPOS	33.33 mL/mx	102	205	303	402
	ROUNDUP POWER MAX(S)	5.5	SL	1 qt/a	A		PREPOS	33.33 mL/mx				
	FIRSTRATE	84	WG	0.6 oz wt/a	A		PREPOS	0.5991 g/mx				
	FIERCE EZ (2065)	3.04	SC	6 fl oz/a	A		PREPOS	6.25 mL/mx				
	INDUCE	100	SF	0.25 % v/v	A		PREPOS	4.999 g/mx				
	ENLIST ONE	3.8	SL	1 qt/a	B		POSPOS	33.33 mL/mx				
	ROUNDUP POWER MAX(S)	5.5	SL	1 qt/a	B		POSPOS	33.33 mL/mx				
	PERPETUO	2.3	SC	6 fl oz/a	B		POSPOS	6.25 mL/mx				
	DRY AMMONIUM SULFATE	100	SG	8.5 lb/100 gal	B		POSPOS	20.37 g/mx				
INDUCE	100	SF	0.25 % v/v	B		POSPOS	4.999 g/mx					
3	ROUNDUP POWER MAX(S)	5.5	SL	32 oz/a	A		PREMCR	33.33 mL/mx	103	201	305	404
	ENLIST ONE	3.8	SL	1 qt/a	A		PREMCR	33.33 mL/mx				
	PREFIX	5.29	EC	1 qt/a	A		PREMCR	33.33 mL/mx				
	ROUNDUP POWERMAX 3	5.88	SL	32 oz/a	B		POSPOS	33.33 mL/mx				
	ENLIST ONE	3.8	SL	1 qt/a	B		POSPOS	33.33 mL/mx				
	DUAL MAGNUM	7.62	EC	1 pt/a	B		POSPOS	16.67 mL/mx				
4	ROUNDUP POWER MAX(S)	5.5	SL	32 oz/a	A		PREMCR	33.33 mL/mx	104	202	301	403
	ENLIST ONE	3.8	SL	1 qt/a	A		PREMCR	33.33 mL/mx				
	ZIDUA PRO	4.09	SC	6 oz/a	A		PREMCR	6.25 mL/mx				
	ROUNDUP POWERMAX 3	5.88	SL	32 oz/a	B		POSPOS	33.33 mL/mx				
	ENLIST ONE	3.8	SL	1 qt/a	B		POSPOS	33.33 mL/mx				
	ZIDUA SC	4.17	SC	3.2 oz/a	B		POSPOS	3.333 mL/mx				
5	CHECK							105	204	302	401	

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
333.332	mL	ENLIST ONE	3.8	LBAI/GAL	SL	
249.999	mL	ROUNDUP POWER MAX(S)	5.5	LBAI/GAL	SL	
15.625	mL	FIERCE EZ (2065)	3.04	LBAI/GAL	SC	
24.997	g	INDUCE	100	%W/W	SF	
15.625	mL	PERPETUO	2.3	LBAI/GAL	SC	
50.926	g	DRY AMMONIUM SULFATE	100	%W/W	SG	
0.749	g	FIRSTRATE	84	%W/W	WG	
41.667	mL	PREFIX	5.29	LBA/GAL	EC	
83.333	mL	ROUNDUP POWERMAX 3	5.88	LB/GAL	SL	
20.833	mL	DUAL MAGNUM	7.62	LBA/GAL	EC	
7.812	mL	ZIDUA PRO	4.09	LBA/GAL	SC	
4.167	mL	ZIDUA SC	4.17	LB/GAL	SC	

* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2 L.

University of Tennessee

Protocol No.: NA23K1A011H Trial ID: NA23K1A011H_1
 Discipline: HERBICIDE Trial Name:
 Trial Category: EFFICACY/CROP TOL Main Chem: 2,4-D
 Trial Type: NATURAL-COM Prod. Dev. Stage: COMMERCIAL
 Plan Year: 2023 Site Type: CROPS,OILSEED
Country:

Title: University Enlist Weed Control System Endorsement Demo-Pre fb POST

Business Unit: US NORTHERN CROPS ARM License Holder: Dr. Larry Steckel

Reps: 4		Plots: 5 by 30 feet		Appl. Amount: 15 GAL/AC		Mix Size: 2 L (total for 4 plots; minimum=0.782 L)					
Trt Num	Appl Code	Treatment Name	Form Conc	Form Type	Rate Unit	Appl Timing	Amt Product to Measure	Rep 1	2	3	4
1	AB	UNTREATED						101	206	301	406
2	A	CLASSIC	250 WG		21.9 g ai/ha	PRE	1.249 g/mx	102	202	308	401
	A	VALOR	510 WG		71.5 g ai/ha	PRE	1.998 g/mx				
	A	METRIBUZIN 75	750 WG		252 g ai/ha	PRE	4.789 g/mx				
	B	Enlist One	456 SL		1070 g ae/ha	4" WEEDS	33.45 mL/mx				
	B	LIBERTY	255.92 SL		600 g ae/ha	4" WEEDS	33.42 mL/mx				
	B	AMSOL	L		2.5 % v/v	4" WEEDS	50.0 mL/mx				
3	A	CLASSIC	250 WG		21.9 g ai/ha	PRE	1.249 g/mx	103	209	309	410
	A	VALOR	510 WG		71.5 g ai/ha	PRE	1.998 g/mx				
	A	METRIBUZIN 75	750 WG		252 g ai/ha	PRE	4.789 g/mx				
	B	Enlist One	456 SL		1070 g ae/ha	4" WEEDS	33.45 mL/mx				
	B	LIBERTY	255.92 SL		600 g ae/ha	4" WEEDS	33.42 mL/mx				
	B	EverpreX	913.07 EC		1390 g ai/ha	4" WEEDS	21.7 mL/mx				
B	AMSOL	L		2.5 % v/v	4" WEEDS	50.0 mL/mx					
4	A	CLASSIC	250 WG		10.95 g ai/ha	PRE	0.6243 g/mx	104	207	302	405
	A	VALOR	510 WG		35.7 g ai/ha	PRE	0.9978 g/mx				
	A	METRIBUZIN 75	750 WG		126 g ai/ha	PRE	2.395 g/mx				
	B	Enlist One	456 SL		1070 g ae/ha	4" WEEDS	33.45 mL/mx				
	B	LIBERTY	255.92 SL		600 g ae/ha	4" WEEDS	33.42 mL/mx				
	B	AMSOL	L		2.5 % v/v	4" WEEDS	50.0 mL/mx				
5	A	CLASSIC	250 WG		10.95 g ai/ha	PRE	0.6243 g/mx	105	204	305	409
	A	VALOR	510 WG		35.7 g ai/ha	PRE	0.9978 g/mx				
	A	METRIBUZIN 75	750 WG		126 g ai/ha	PRE	2.395 g/mx				
	B	Enlist One	456 SL		1070 g ae/ha	4" WEEDS	33.45 mL/mx				
	B	Roundup PowerMAX 3	575 SL		1340 g ae/ha	4" WEEDS	33.22 mL/mx				
	B	AMSOL	L		2.5 % v/v	4" WEEDS	50.0 mL/mx				
6	A	CLASSIC	250 WG		10.95 g ai/ha	PRE	0.6243 g/mx	106	208	310	402
	A	VALOR	510 WG		35.7 g ai/ha	PRE	0.9978 g/mx				
	A	METRIBUZIN 75	750 WG		126 g ai/ha	PRE	2.395 g/mx				
	B	Enlist One	456 SL		1070 g ae/ha	4" WEEDS	33.45 mL/mx				
	B	LIBERTY	255.92 SL		600 g ae/ha	4" WEEDS	33.42 mL/mx				
	B	EverpreX	913.07 EC		1390 g ai/ha	4" WEEDS	21.7 mL/mx				
B	AMSOL	L		2.5 % v/v	4" WEEDS	50.0 mL/mx					
7	A	CLASSIC	250 WG		10.95 g ai/ha	PRE	0.6243 g/mx	107	210	306	407
	A	VALOR	510 WG		35.7 g ai/ha	PRE	0.9978 g/mx				
	A	METRIBUZIN 75	750 WG		126 g ai/ha	PRE	2.395 g/mx				
	B	Enlist One	456 SL		1070 g ae/ha	4" WEEDS	33.45 mL/mx				
	B	Roundup PowerMAX 3	575 SL		1340 g ae/ha	4" WEEDS	33.22 mL/mx				
	B	EverpreX	913.07 EC		1390 g ai/ha	4" WEEDS	21.7 mL/mx				
B	AMSOL	L		2.5 % v/v	4" WEEDS	50.0 mL/mx					
8	A	CLASSIC	250 WG		10.95 g ai/ha	PRE	0.6243 g/mx	108	205	303	404
	A	VALOR	510 WG		35.7 g ai/ha	PRE	0.9978 g/mx				
	A	METRIBUZIN 75	750 WG		126 g ai/ha	PRE	2.395 g/mx				
	B	FLEXSTAR	226 SL		264 g ai/ha	4" WEEDS	16.65 mL/mx				
	B	LIBERTY	255.92 SL		600 g ae/ha	4" WEEDS	33.42 mL/mx				
	B	AMSOL	L		2.5 % v/v	4" WEEDS	50.0 mL/mx				
9	A	CLASSIC	250 WG		10.95 g ai/ha	PRE	0.6243 g/mx	109	203	304	408
	A	VALOR	510 WG		35.7 g ai/ha	PRE	0.9978 g/mx				
	A	METRIBUZIN 75	750 WG		126 g ai/ha	PRE	2.395 g/mx				
	B	Roundup PowerMAX 3	575 SL		1340 g ae/ha	4" WEEDS	33.22 mL/mx				
	B	FLEXSTAR	226 SL		264 g ai/ha	4" WEEDS	16.65 mL/mx				
	B	AMSOL	L		2.5 % v/v	4" WEEDS	50.0 mL/mx				

University of Tennessee

Protocol No.: NA23K1A011H	Trial ID: NA23K1A011H_1	
Discipline: HERBICIDE	DED#: K1A	Trial Name:
Trial Category: EFFICACY/CROP TOL		Main Chem: 2,4-D
Trial Type: NATURAL-COM		Prod. Dev. Stage: COMMERCIAL
Plan Year: 2023		Site Type: CROPS,OILSEED
		Country:

Title: University Enlist Weed Control System Endorsement Demo-Pre fb POST

Business Unit: US NORTHERN CROPS ARM License Holder: Dr. Larry Steckel

Reps: 4 Plots: 5 by 30 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2 L (total for 4 plots; minimum=0.782 L)

Trt Num	Appl Treatment Code Name	Form Conc	Form Type	Rate	Unit	Appl Timing	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
10	A CLASSIC	250	WG	10.95	g ai/ha	PRE	0.6243 g/mx	110	201	307	403
	A VALOR	510	WG	35.7	g ai/ha	PRE	0.9978 g/mx				
	A METRIBUZIN 75	750	WG	126	g ai/ha	PRE	2.395 g/mx				
	B Enlist One	456	SL	1070	g ae/ha	4" WEEDS	33.45 mL/mx				
	B Roundup PowerMAX 3	575	SL	1340	g ae/ha	4" WEEDS	33.22 mL/mx				
	B LIBERTY	255.92	SL	600	g ae/ha	4" WEEDS	33.42 mL/mx				
	B EverpreX	913.07	EC	1390	g ai/ha	4" WEEDS	21.7 mL/mx				
	B AMSOL		L	2.5	% v/v	4" WEEDS	50.0 mL/mx				

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Material Name	Form Conc	Conc Unit	Form Type	Lot Code
8.585	g	CLASSIC	CLASSIC	250	g ai/kg	WG	
13.727	g	VALOR	VALOR	510	g ai/kg	WG	
32.927	g	METRIBUZIN 75	METRIBUZIN 75	750	g ai/kg	WG	
292.666	mL	Enlist One	GF-3335	456	g ae/l	SL	
250.642	mL	LIBERTY	IGNITE 280 SL	255.92	g ae/l	SL	
562.500	mL	AMSOL	AMSol			L	
108.499	mL	EverpreX	EverpreX	913.07	g ai/l	EC	
166.093	mL	Roundup PowerMAX 3	Roundup PowerMAX 3	575	g ae/l	SL	
41.628	mL	FLEXSTAR	FLEXSTAR (226 GAI/L)	226	g ai/l	SL	

* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2 L.

* Adjusted for multiple applications in treatment list.

University of Tennessee

Showcasing Temper, Temper HL, and Temper More in Soybean

Trial ID: 22007223_3
 Protocol ID: Location: Trial Year: 2023
 Project ID: Glufosinate - Temper More Project ID 2: Soybean Project ID 3: Showcase
 Study Director: Zac Carpenter Sponsor Contact:
 Investigator: Zac Carpenter

Reps: 4 Plots: 5 by 30 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2 L (total for 4 plots; minimum=0.782 L)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	Appl Description	Appl Timing	Amt to Measure	Rep 1	Rep 2	Rep 3	Rep 4
1	Nontreated Check									101	202	304	401
2	Tailwind	6.5 L		24 fl oz/a		A	PRE	PREMCR	25.0 mL/mx	102	203	305	403
3	Tailwind	6.5 L		24 fl oz/a		A	PRE	PREMCR	25.0 mL/mx	103	205	302	404
	Temper	280 L		31 fl oz/a		B	3-4" Weeds	POSPOS	32.29 mL/mx				
	Ammonium Sulfate	100 SG		17 lb/100 gal		B	3-4" Weeds	POSPOS	40.74 g/mx				
4	Tailwind	6.5 L		24 fl oz/a		A	PRE	PREMCR	25.0 mL/mx	104	201	303	405
	Temper HL	350 L		24.8 fl oz/a		B	3-4" Weeds	POSPOS	25.83 mL/mx				
	Ammonium Sulfate	100 SG		17 lb/100 gal		B	3-4" Weeds	POSPOS	40.74 g/mx				
5	Tailwind	6.5 L		24 fl oz/a		A	PRE	PREMCR	25.0 mL/mx	105	204	301	402
	Temper More	4.8 L		41 fl oz/a		B	3-4" Weeds	POSPOS	42.71 mL/mx				
	Poweral	90 SL		8 fl oz/a		B	3-4" Weeds	POSPOS	8.333 mL/mx				
	Ammonium Sulfate	100 SG		17 lb/100 gal		B	3-4" Weeds	POSPOS	40.74 g/mx				

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
125.000	mL	Tailwind	6.5	LB/GAL	L	
40.365	mL	Temper	280	g/L	L	
152.778	g	Ammonium Sulfate	100	%	SG	
32.292	mL	Temper HL	350	g/L	L	
53.385	mL	Temper More	4.8	LBA/GAL	L	
10.417	mL	Poweral	90	%	SL	

* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2 L.

University of Tennessee

Efficacy and performance of Envoke in key weed programs

Trial ID: 23HC010USGC18_1
 Protocol ID: 23HC010US Location: Trial Year: 2023
 Project ID: 010 Project ID 2: Project ID 3:
 Study Director: Greg Armel, Ph.D. Sponsor Contact: AMVAC PD rep for region
 Investigator:

Reps: 4 Plots: 6.33 by 30 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2 L (total for 4 plots; minimum=0.99 L)

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Appl Code	Appl Description	Appl Timing	Amt to Measure	Rep 1	Rep 2	Rep 3	Rep 4
1	Check								101	205	307	403
2	Liberty 280 SL	280 SL		32 fl oz/a	A	2-4" weeds	EPOST	33.33 mL/mx	102	204	310	404
	Dual II Magnum 7.64 EC	7.64 EC		1.33 pt/a	A	2-4" weeds	EPOST	22.17 mL/mx				
	COC	100 SL		1 % v/v	A	2-4" weeds	EPOST	20.0 mL/mx				
	AMS	100 SG		3 lb/a	A	2-4" weeds	EPOST	47.93 g/mx				
	Liberty 280 SL	280 SL		32 fl oz/a	B	@ 20 DA-A applic.	POST	33.33 mL/mx				
	COC	100 SL		1 % v/v	B	@ 20 DA-A applic.	POST	20.0 mL/mx				
	AMS	100 SG		3 lb/a	B	@ 20 DA-A applic.	POST	47.93 g/mx				
3	Roundup PowerMax 3 4.8 SL	4.8 SL		30 fl oz/a	A	2-4" weeds	EPOST	31.25 mL/mx	103	206	302	405
	Xtendimax 2.9 L	2.9 L		22 fl oz/a	A	2-4" weeds	EPOST	22.92 mL/mx				
	COC	100 SL		1 % v/v	A	2-4" weeds	EPOST	20.0 mL/mx				
	Intact	43.18 L		0.5 % v/v	A	2-4" weeds	EPOST	9.999 mL/mx				
	Verified VRA	50 L		20 fl oz/a	A	2-4" weeds	EPOST	20.83 mL/mx				
	Roundup PowerMax 3 4.8 SL	4.8 SL		30 fl oz/a	B	@ 20 DA-A applic.	POST	31.25 mL/mx				
	Xtendimax 2.9 L	2.9 L		22 fl oz/a	B	@ 20 DA-A applic.	POST	22.92 mL/mx				
	COC	100 L		1 % v/v	B	@ 20 DA-A applic.	POST	20.0 mL/mx				
	Intact	43.18 L		0.5 % v/v	B	@ 20 DA-A applic.	POST	9.999 mL/mx				
Verified VRA	50 L		20 fl oz/a	B	@ 20 DA-A applic.	POST	20.83 mL/mx					
4	Liberty 280 SL	280 SL		32 fl oz/a	A	2-4" weeds	EPOST	33.33 mL/mx	104	202	305	402
	Dual II Magnum 7.64 EC	7.64 EC		1.33 pt/a	A	2-4" weeds	EPOST	22.17 mL/mx				
	COC	100 SL		1 % v/v	A	2-4" weeds	EPOST	20.0 mL/mx				
	AMS	100 SG		3 lb/a	A	2-4" weeds	EPOST	47.93 g/mx				
	Liberty 280 SL	280 SL		32 fl oz/a	B	@ 20 DA-A applic.	POST	33.33 mL/mx				
	Envoke 75 WG	75 WG		0.1 oz wt/a	B	@ 20 DA-A applic.	POST	.09986 g/mx				
	COC	100 SL		1 % v/v	B	@ 20 DA-A applic.	POST	20.0 mL/mx				
AMS	100 SG		3 lb/a	B	@ 20 DA-A applic.	POST	47.93 g/mx					
5	Liberty 280 SL	280 SL		32 fl oz/a	A	2-4" weeds	EPOST	33.33 mL/mx	105	208	301	410
	Dual II Magnum 7.64 EC	7.64 EC		1.33 pt/a	A	2-4" weeds	EPOST	22.17 mL/mx				
	COC	100 SL		1 % v/v	A	2-4" weeds	EPOST	20.0 mL/mx				
	AMS	100 SG		3 lb/a	A	2-4" weeds	EPOST	47.93 g/mx				
	Liberty 280 SL	280 SL		32 fl oz/a	B	@ 20 DA-A applic.	POST	33.33 mL/mx				
	Envoke 75 WG	75 WG		0.15 oz wt/a	B	@ 20 DA-A applic.	POST	0.1498 g/mx				
	COC	100 SL		1 % v/v	B	@ 20 DA-A applic.	POST	20.0 mL/mx				
AMS	100 SG		3 lb/a	B	@ 20 DA-A applic.	POST	47.93 g/mx					
6	Liberty 280 SL	280 SL		32 fl oz/a	A	2-4" weeds	EPOST	33.33 mL/mx	106	203	304	401
	Dual II Magnum 7.64 EC	7.64 EC		1.33 pt/a	A	2-4" weeds	EPOST	22.17 mL/mx				
	COC	100 SL		1 % v/v	A	2-4" weeds	EPOST	20.0 mL/mx				
	AMS	100 SG		3 lb/a	A	2-4" weeds	EPOST	47.93 g/mx				
	Roundup PowerMax 3 4.8 SL	4.8 SL		30 fl oz/a	B	@ 20 DA-A applic.	POST	31.25 mL/mx				
	Xtendimax 2.9 L	2.9 L		22 fl oz/a	B	@ 20 DA-A applic.	POST	22.92 mL/mx				
	Envoke 75 WG	75 WG		0.1 oz wt/a	B	@ 20 DA-A applic.	POST	.09986 g/mx				
	COC	100 L		1 % v/v	B	@ 20 DA-A applic.	POST	20.0 mL/mx				
	Intact	43.18 L		0.5 % v/v	B	@ 20 DA-A applic.	POST	9.999 mL/mx				
Verified VRA	50 L		20 fl oz/a	B	@ 20 DA-A applic.	POST	20.83 mL/mx					
7	Roundup PowerMax 3 4.8 SL	4.8 SL		30 fl oz/a	A	2-4" weeds	EPOST	31.25 mL/mx	107	201	308	406
	Xtendimax 2.9 L	2.9 L		22 fl oz/a	A	2-4" weeds	EPOST	22.92 mL/mx				
	COC	100 SL		1 % v/v	A	2-4" weeds	EPOST	20.0 mL/mx				
	Intact	43.18 L		0.5 % v/v	A	2-4" weeds	EPOST	9.999 mL/mx				
	Verified VRA	50 L		20 fl oz/a	A	2-4" weeds	EPOST	20.83 mL/mx				
	Liberty 280 SL	280 SL		32 fl oz/a	B	@ 20 DA-A applic.	POST	33.33 mL/mx				
	Envoke 75 WG	75 WG		0.1 oz wt/a	B	@ 20 DA-A applic.	POST	.09986 g/mx				
	COC	100 SL		1 % v/v	B	@ 20 DA-A applic.	POST	20.0 mL/mx				
AMS	100 SG		3 lb/a	B	@ 20 DA-A applic.	POST	47.93 g/mx					

University of Tennessee

Efficacy and performance of Envoke in key weed programs

Trial ID: 23HC010USGC18_1
 Protocol ID: 23HC010US Location: Trial Year: 2023
 Project ID: 010 Project ID 2: Project ID 3:
 Study Director: Greg Armel, Ph.D. Sponsor Contact: AMVAC PD rep for region
 Investigator:

Reps: 4 Plots: 6.33 by 30 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2 L (total for 4 plots; minimum=0.99 L)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	Appl Description	Appl Timing	Amt to Measure	Rep 1	Rep 2	Rep 3	Rep 4
8	Roundup PowerMax 3 4.8 SL	4.8 SL		30 fl oz/a	A	A	2-4" weeds	EPOST	31.25 mL/mx	108	210	303	409
	Xtendimax 2.9 L	2.9 L		22 fl oz/a	A	A	2-4" weeds	EPOST	22.92 mL/mx				
	COC	100 SL		1 % v/v	A	A	2-4" weeds	EPOST	20.0 mL/mx				
	Intact	43.18 L		0.5 % v/v	A	A	2-4" weeds	EPOST	9.999 mL/mx				
	Verified VRA	50 L		20 fl oz/a	A	A	2-4" weeds	EPOST	20.83 mL/mx				
	Roundup PowerMax 3 4.8 SL	4.8 SL		30 fl oz/a	B	B	@ 20 DA-A applic.	POST	31.25 mL/mx				
	Xtendimax 2.9 L	2.9 L		22 fl oz/a	B	B	@ 20 DA-A applic.	POST	22.92 mL/mx				
	Envoke 75 WG	75 WG		0.1 oz wt/a	B	B	@ 20 DA-A applic.	POST	.09986 g/mx				
	COC	100 L		1 % v/v	B	B	@ 20 DA-A applic.	POST	20.0 mL/mx				
	Intact	43.18 L		0.5 % v/v	B	B	@ 20 DA-A applic.	POST	9.999 mL/mx				
Verified VRA	50 L		20 fl oz/a	B	B	@ 20 DA-A applic.	POST	20.83 mL/mx					
9	Roundup PowerMax 3 4.8 SL	4.8 SL		30 fl oz/a	A	A	2-4" weeds	EPOST	31.25 mL/mx	109	207	309	408
	Xtendimax 2.9 L	2.9 L		22 fl oz/a	A	A	2-4" weeds	EPOST	22.92 mL/mx				
	COC	100 SL		1 % v/v	A	A	2-4" weeds	EPOST	20.0 mL/mx				
	Intact	43.18 L		0.5 % v/v	A	A	2-4" weeds	EPOST	9.999 mL/mx				
	Verified VRA	50 L		20 fl oz/a	A	A	2-4" weeds	EPOST	20.83 mL/mx				
	Roundup PowerMax 3 4.8 SL	4.8 SL		30 fl oz/a	B	B	@ 20 DA-A applic.	POST	31.25 mL/mx				
	Xtendimax 2.9 L	2.9 L		22 fl oz/a	B	B	@ 20 DA-A applic.	POST	22.92 mL/mx				
	Envoke 75 WG	75 WG		0.15 oz wt/a	B	B	@ 20 DA-A applic.	POST	0.1498 g/mx				
	COC	100 L		1 % v/v	B	B	@ 20 DA-A applic.	POST	20.0 mL/mx				
	Intact	43.18 L		0.5 % v/v	B	B	@ 20 DA-A applic.	POST	9.999 mL/mx				
Verified VRA	50 L		20 fl oz/a	B	B	@ 20 DA-A applic.	POST	20.83 mL/mx					
10	Roundup PowerMax 3 4.8 SL	4.8 SL		30 fl oz/a	A	A	2-4" weeds	EPOST	31.25 mL/mx	110	209	306	407
	Xtendimax 2.9 L	2.9 L		22 fl oz/a	A	A	2-4" weeds	EPOST	22.92 mL/mx				
	COC	100 SL		1 % v/v	A	A	2-4" weeds	EPOST	20.0 mL/mx				
	Intact	43.18 L		0.5 % v/v	A	A	2-4" weeds	EPOST	9.999 mL/mx				
	Verified VRA	50 L		20 fl oz/a	A	A	2-4" weeds	EPOST	20.83 mL/mx				
	Roundup PowerMax 3 4.8 SL	4.8 SL		30 fl oz/a	B	B	@ 20 DA-A applic.	POST	31.25 mL/mx				
	Xtendimax 2.9 L	2.9 L		22 fl oz/a	B	B	@ 20 DA-A applic.	POST	22.92 mL/mx				
	Envoke 75 WG	75 WG		0.15 oz wt/a	B	B	@ 20 DA-A applic.	POST	0.1498 g/mx				
	AMV6146	1 L		2 pt/a	B	B	@ 20 DA-A applic.	POST	33.33 mL/mx				
	COC	100 L		1 % v/v	B	B	@ 20 DA-A applic.	POST	20.0 mL/mx				
Intact	43.18 L		0.5 % v/v	B	B	@ 20 DA-A applic.	POST	9.999 mL/mx					
Verified VRA	50 L		20 fl oz/a	B	B	@ 20 DA-A applic.	POST	20.83 mL/mx					

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
333.333	mL	Liberty 280 SL	280	gA/L	SL	
110.833	mL	Dual II Magnum 7.64 EC	7.64	LBA/GAL	EC	
324.965	mL	COC	100	%	SL	
479.303	g	AMS	100	%	SG	
390.625	mL	Roundup PowerMax 3 4.8 SL	4.8	LBAE/GAL	SL	
286.458	mL	Xtendimax 2.9 L	2.9	LBAE/GAL	L	
124.986	mL	Intact	43.18	%	L	
260.416	mL	Verified VRA	50	%	L	
124.986	mL	COC	100	%	L	
1.061	g	Envoke 75 WG	75	%AW/W	WG	
41.667	mL	AMV6146	1	%AW/W	L	

* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2 L.

University of Tennessee

AMV5233D in XtendFlex cotton - Academic awareness.

Trial ID: 23HD052USGC57_1
 Protocol ID: 23HD052US Location: Trial Year: 2023
 Project ID: 052 Project ID 2: Project ID 3:
 Study Director: Rich Zollinger Sponsor Contact: Gary Cundiff, Ph.D.
 Investigator: Rich Zollinger

Reps: 4 Plots: 6.33 by 30 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2 L (total for 4 plots; minimum=0.99 L, overage=400 mL)

Trt No.	Treatment Name	Form Conc	Form Type	Form Rate	Form Unit	Rate Unit	Appl Code	Appl Description	Appl Timing	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
1	Liberty 280 SL AMS	280 SL		32 fl oz/a	B	3 lb/a	B	2-4" weeds	EPOST	33.33 mL/mx	101	203	305	406
		100 D		3 lb/a	B			2-4" weeds	EPOST	47.93 g/mx				
2	AMV5233D COC AMS	2.57 SL		24 fl oz/a	B	3 lb/a	B	2-4" weeds	EPOST	25.0 mL/mx	102	210	304	408
		100 SL		1 % v/v	B			2-4" weeds	EPOST	20.0 mL/mx				
		100 D		3 lb/a	B			2-4" weeds	EPOST	47.93 g/mx				
3	AMV5233D COC AMS	2.57 SL		32 fl oz/a	B	3 lb/a	B	2-4" weeds	EPOST	33.33 mL/mx	103	201	308	401
		100 SL		1 % v/v	B			2-4" weeds	EPOST	20.0 mL/mx				
		100 D		3 lb/a	B			2-4" weeds	EPOST	47.93 g/mx				
4	AMV5233D COC AMS AMV5233D COC AMS	2.57 SL		24 fl oz/a	B	3 lb/a	B	2-4" weeds	EPOST	25.0 mL/mx	104	202	303	407
		100 SL		1 % v/v	B			2-4" weeds	EPOST	20.0 mL/mx				
		100 D		3 lb/a	B			2-4" weeds	EPOST	47.93 g/mx				
		2.57 SL		24 fl oz/a	C			@ 20 DA-B applic.	POST	25.0 mL/mx				
		100 SL		1 % v/v	C			@ 20 DA-B applic.	POST	20.0 mL/mx				
		100 D		3 lb/a	C			@ 20 DA-B applic.	POST	47.93 g/mx				
5	AMV5233D COC AMS AMV5233D COC AMS	2.57 SL		32 fl oz/a	B	3 lb/a	B	2-4" weeds	EPOST	33.33 mL/mx	105	207	309	404
		100 SL		1 % v/v	B			2-4" weeds	EPOST	20.0 mL/mx				
		100 D		3 lb/a	B			2-4" weeds	EPOST	47.93 g/mx				
		2.57 SL		32 fl oz/a	C			@ 20 DA-B applic.	POST	33.33 mL/mx				
		100 SL		1 % v/v	C			@ 20 DA-B applic.	POST	20.0 mL/mx				
		100 D		3 lb/a	C			@ 20 DA-B applic.	POST	47.93 g/mx				
6	AMV5233D Dual II Magnum 7.64 EC COC AMS	2.57 SL		32 fl oz/a	B	3 lb/a	B	2-4" weeds	EPOST	33.33 mL/mx	106	209	302	405
		7.64 EC		1 pt/a	B			2-4" weeds	EPOST	16.67 mL/mx				
		100 SL		1 % v/v	B			2-4" weeds	EPOST	20.0 mL/mx				
		100 D		3 lb/a	B			2-4" weeds	EPOST	47.93 g/mx				
7	COTORAN 4L CAPAROL 4L AMV5233D Xtendimax 2.9 L COC Intact Verified VRA	4 F		24 oz/a	A	24 oz/a	A	PRE	PRE	25.0 mL/mx	107	208	306	403
		4 F		24 oz/a	A			PRE	PRE	25.0 mL/mx				
		2.57 SL		32 fl oz/a	C			@ 20 DA-B applic.	POST	33.33 mL/mx				
		2.9 L		22 fl oz/a	C			@ 20 DA-B applic.	POST	22.92 mL/mx				
		100 SL		1 % v/v	C			@ 20 DA-B applic.	POST	20.0 mL/mx				
		43.18 L		0.5 % v/v	C			@ 20 DA-B applic.	POST	9.999 mL/mx				
		50 L		20 fl oz/a	C			@ 20 DA-B applic.	POST	20.83 mL/mx				
8	AMV5233D Xtendimax 2.9 L COC Intact Verified VRA	2.57 SL		32 fl oz/a	B	3 lb/a	B	2-4" weeds	EPOST	33.33 mL/mx	108	204	307	402
		2.9 L		22 fl oz/a	B			2-4" weeds	EPOST	22.92 mL/mx				
		100 L		1 % v/v	B			2-4" weeds	EPOST	20.0 mL/mx				
		43.18 L		0.5 % v/v	B			2-4" weeds	EPOST	9.999 mL/mx				
		50 L		20 fl oz/a	B			2-4" weeds	EPOST	20.83 mL/mx				
9	AMV5233D Xtendimax 2.9 L Dual II Magnum 7.64 EC COC Intact Verified VRA	2.57 SL		32 fl oz/a	B	3 lb/a	B	2-4" weeds	EPOST	33.33 mL/mx	109	206	301	410
		2.9 L		22 fl oz/a	C			@ 20 DA-B applic.	POST	22.92 mL/mx				
		7.64 EC		1 pt/a	C			@ 20 DA-B applic.	POST	16.67 mL/mx				
		100 L		1 % v/v	C			@ 20 DA-B applic.	POST	20.0 mL/mx				
		43.18 L		0.5 % v/v	C			@ 20 DA-B applic.	POST	9.999 mL/mx				
		50 L		20 fl oz/a	C			@ 20 DA-B applic.	POST	20.83 mL/mx				
10	Roundup PowerMax 3 4.8 SL Xtendimax 2.9 L Intact Verified VRA AMV5233D Dual II Magnum 7.64 EC COC AMS	4.8 SL		30 fl oz/a	B	3 lb/a	B	2-4" weeds	EPOST	31.25 mL/mx	110	205	310	409
		2.9 L		22 fl oz/a	B			2-4" weeds	EPOST	22.92 mL/mx				
		43.18 L		0.5 % v/v	B			2-4" weeds	EPOST	9.999 mL/mx				
		50 L		20 fl oz/a	B			2-4" weeds	EPOST	20.83 mL/mx				
		2.57 SL		32 fl oz/a	C			@ 20 DA-B applic.	POST	33.33 mL/mx				
		7.64 EC		1 pt/a	C			@ 20 DA-B applic.	POST	16.67 mL/mx				
		100 L		1 % v/v	C			@ 20 DA-B applic.	POST	20.0 mL/mx				
		100 D		3 lb/a	C			@ 20 DA-B applic.	POST	47.93 g/mx				

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
41.667	mL	Liberty 280 SL	280	gA/L	SL	
539.216	g	AMS	100	%	D	
427.083	mL	AMV5233D	2.57	LBA/GAL	SL	

University of Tennessee

AMV5233D in XtendFlex cotton - Academic awareness.

Trial ID: 23HD052USGC57_1
 Protocol ID: 23HD052US Location: Trial Year: 2023
 Project ID: 052 Project ID 2: Project ID 3:
 Study Director: Rich Zollinger Sponsor Contact: Gary Cundiff, Ph.D.
 Investigator: Rich Zollinger

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
199.978	mL	COC	100	%	SL	
62.500	mL	Dual II Magnum 7.64 EC	7.64	LBA/GAL	EC	
31.250	mL	COTORAN 4L	4	LBA/GAL	F	
31.250	mL	CAPAROL 4L	4	LBA/GAL	F	
114.583	mL	Xtendimax 2.9 L	2.9	LBAE/GAL	L	
49.995	mL	Intact	43.18	%	L	
104.167	mL	Verified VRA	50	%	L	
74.992	mL	COC	100	%	L	
39.062	mL	Roundup PowerMax 3 4.8 SL	4.8	LBAE/GAL	SL	

* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2 L.

University of Tennessee

Brake Herbicide Programs

Trial ID: SPH-23-Brake POST Prgs-Cotton-TN
 Protocol ID: SPH-23-Brake POST Prgs-Cotton-TN Location: Trial Year: 2023
 Project ID: SPH-23-Brake Project ID 2: Project ID 3:
 Study Director: Sponsor Contact: Kyle Briscoe, Ph.D.
 Investigator:

Reps: 4 Plots: 6.33 by 30 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2 L (total for 4 plots; minimum=0.99 L)

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Appl Unit	Appl Code	Appl Description	Appl Timing	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
1	Untreated									101	203	308	406
2	Brake	1.2 L		16 fl oz/a	A		PRE		16.67 mL/mx	102	204	305	403
	Cotoran	4.0 L		24 fl oz/a	A		PRE		25.0 mL/mx				
	Roundup PMax	5.5 L		32 fl oz/a	B		14-18 DAP		33.33 mL/mx				
	Liberty	2.34 SL		32 fl oz/a	B		14-18 DAP		33.33 mL/mx				
	Dual Magnum	7.62 EC		16 fl oz/a	B		14-18 DAP		16.67 mL/mx				
3	Brake	1.2 L		16 fl oz/a	A		PRE		16.67 mL/mx	103	201	309	404
	Cotoran	4.0 L		24 fl oz/a	A		PRE		25.0 mL/mx				
	Roundup PMax	5.5 L		32 fl oz/a	B		14-18 DAP		33.33 mL/mx				
	Liberty	2.34 SL		32 fl oz/a	B		14-18 DAP		33.33 mL/mx				
	Dual Magnum	7.62 EC		16 fl oz/a	B		14-18 DAP		16.67 mL/mx				
	Roundup PMax	5.5 L		32 fl oz/a	C		14-18 DA-App B		33.33 mL/mx				
	Liberty	2.34 SL		32 fl oz/a	C		14-18 DA-App B		33.33 mL/mx				
	Warrant	3.0 L		48 fl oz/a	C		14-18 DA-App B		50.0 mL/mx				
4	Brake	1.2 L		16 fl oz/a	A		PRE		16.67 mL/mx	104	206	307	405
	Cotoran	4.0 L		24 fl oz/a	A		PRE		25.0 mL/mx				
	Roundup PMax	5.5 L		32 fl oz/a	B		14-18 DAP		33.33 mL/mx				
	Liberty	2.34 SL		32 fl oz/a	B		14-18 DAP		33.33 mL/mx				
	Dual Magnum	7.62 EC		16 fl oz/a	B		14-18 DAP		16.67 mL/mx				
	Roundup PMax	5.5 L		32 fl oz/a	C		14-18 DA-App B		33.33 mL/mx				
	Liberty	2.34 SL		32 fl oz/a	C		14-18 DA-App B		33.33 mL/mx				
	Warrant	3.0 L		48 fl oz/a	C		14-18 DA-App B		50.0 mL/mx				
	MSMA	6 L		32 fl oz/a	D		14-18 DA-App C POSDIR		33.33 mL/mx				
Direx	4.0 L		16 fl oz/a	D		14-18 DA-App C POSDIR		16.67 mL/mx					
5	Brake	1.2 L		16 fl oz/a	A		PRE		16.67 mL/mx	105	209	306	408
	Cotoran	4.0 L		24 fl oz/a	A		PRE		25.0 mL/mx				
	Roundup PMax	5.5 L		32 fl oz/a	B		14-18 DAP		33.33 mL/mx				
	Liberty	2.34 SL		32 fl oz/a	B		14-18 DAP		33.33 mL/mx				
	Dual Magnum	7.62 EC		16 fl oz/a	B		14-18 DAP		16.67 mL/mx				
	MSMA	6 L		32 fl oz/a	D		14-18 DA-App C POSDIR		33.33 mL/mx				
Direx	4.0 L		16 fl oz/a	D		14-18 DA-App C POSDIR		16.67 mL/mx					
6	Brake	1.2 L		16 fl oz/a	A		PRE		16.67 mL/mx	106	208	302	409
	Warrant	3.0 L		48 fl oz/a	A		PRE		50.0 mL/mx				
	Roundup PMax	5.5 L		32 fl oz/a	B		14-18 DAP		33.33 mL/mx				
	Liberty	2.34 SL		32 fl oz/a	B		14-18 DAP		33.33 mL/mx				
	Dual Magnum	7.62 EC		16 fl oz/a	B		14-18 DAP		16.67 mL/mx				
7	Brake	1.2 L		16 fl oz/a	A		PRE		16.67 mL/mx	107	202	304	401
	Warrant	3.0 L		48 fl oz/a	A		PRE		50.0 mL/mx				
	Roundup PMax	5.5 L		32 fl oz/a	B		14-18 DAP		33.33 mL/mx				
	Liberty	2.34 SL		32 fl oz/a	B		14-18 DAP		33.33 mL/mx				
	Dual Magnum	7.62 EC		16 fl oz/a	B		14-18 DAP		16.67 mL/mx				
	Roundup PMax	5.5 L		32 fl oz/a	C		14-18 DA-App B		33.33 mL/mx				
	Liberty	2.34 SL		32 fl oz/a	C		14-18 DA-App B		33.33 mL/mx				
Warrant	3.0 L		48 fl oz/a	C		14-18 DA-App B		50.0 mL/mx					
8	Brake	1.2 L		16 fl oz/a	A		PRE		16.67 mL/mx	108	207	301	402
	Warrant	3.0 L		48 fl oz/a	A		PRE		50.0 mL/mx				
	Roundup PMax	5.5 L		32 fl oz/a	B		14-18 DAP		33.33 mL/mx				
	Liberty	2.34 SL		32 fl oz/a	B		14-18 DAP		33.33 mL/mx				
	Dual Magnum	7.62 EC		16 fl oz/a	B		14-18 DAP		16.67 mL/mx				
	Roundup PMax	5.5 L		32 fl oz/a	C		14-18 DA-App B		33.33 mL/mx				
	Liberty	2.34 SL		32 fl oz/a	C		14-18 DA-App B		33.33 mL/mx				
	Warrant	3.0 L		48 fl oz/a	C		14-18 DA-App B		50.0 mL/mx				
	MSMA	6 L		32 fl oz/a	D		14-18 DA-App C POSDIR		33.33 mL/mx				
Direx	4.0 L		16 fl oz/a	D		14-18 DA-App C POSDIR		16.67 mL/mx					

University of Tennessee

Brake Herbicide Programs

Trial ID: SPH-23-Brake POST Prgs-Cotton-TN
 Protocol ID: SPH-23-Brake POST Prgs-Cotton-TN Location: Trial Year: 2023
 Project ID: SPH-23-Brake Project ID 2: Project ID 3:
 Study Director: Sponsor Contact: Kyle Briscoe, Ph.D.
 Investigator:

Reps: 4 Plots: 6.33 by 30 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2 L (total for 4 plots; minimum=0.99 L)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Appl Unit	Appl Code	Description	Appl Timing	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
9	Brake	1.2 L	L	16 fl oz/a	A	PRE			16.67 mL/mx	109	205	303	407
	Warrant	3.0 L	L	48 fl oz/a	A	PRE			50.0 mL/mx				
	Roundup PMax	5.5 L	L	32 fl oz/a	B	14-18 DAP			33.33 mL/mx				
	Liberty	2.34 SL	SL	32 fl oz/a	B	14-18 DAP			33.33 mL/mx				
	Dual Magnum	7.62 EC	EC	16 fl oz/a	B	14-18 DAP			16.67 mL/mx				
	MSMA	6 L	L	32 fl oz/a	D	14-18 DA-App C POSDIR			33.33 mL/mx				
	Direx	4.0 L	L	16 fl oz/a	D	14-18 DA-App C POSDIR			16.67 mL/mx				

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
166.667	mL	Brake	1.2	LBA/GAL	L	
125.000	mL	Cotoran	4.0	LBA/GAL	L	
500.000	mL	Roundup PMax	5.5	LBA/GAL	L	
500.000	mL	Liberty	2.34	LBA/GAL	SL	
166.667	mL	Dual Magnum	7.62	LBA/GAL	EC	
500.000	mL	Warrant	3.0	LBA/GAL	L	
166.667	mL	MSMA	6	LBA/GAL	L	
83.333	mL	Direx	4.0	LBA/GAL	L	

* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

University of Tennessee

Anthem Flex Fertilizer Impregnation for residual grass and broadleaf weed control in cotton.

Trial ID: USA-23-002
 Protocol ID: USA-23-002 Location: Trial Year: 2023
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sam Rustom Sponsor Contact:
 Investigator:

Reps: 4 Plots: 6.33 by 30 feet

Appl. Amount: 15 GAL/AC

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Appl Code	Appl Description	Appl Timing	Mix Size	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
1	UNTREATED CHECK						Untreated Check				101	206	303	401
2	COTORAN 4L	4 SC		32 fl oz/a	A		PRE Timing	PRE	2 L	33.33 mL/mx	102	204	302	405
	CAPAROL	4 F		24 fl oz/a	A		PRE Timing	PRE	2 L	25.0 mL/mx				
	ANTHEM FLEX	4 SE		3 oz/a	A		Pinhead Square Cotton - Pre to Weeds	POSPRE	2 L	3.125 mL/mx				
	AMSUL	100 GR		200 lb/a	A		Pinhead Square Cotton - Pre to Weeds	POSPRE	-	395.5 g/1 pl				
3	COTORAN 4L	4 SC		32 fl oz/a	A		PRE Timing	PRE	2 L	33.33 mL/mx	103	201	306	403
	CAPAROL	4 F		24 fl oz/a	A		PRE Timing	PRE	2 L	25.0 mL/mx				
	ANTHEM FLEX	4 SE		3.80 oz/a	A		Pinhead Square Cotton - Pre to Weeds	POSPRE	2 L	3.958 mL/mx				
	AMSUL	100 GR		200 lb/a	A		Pinhead Square Cotton - Pre to Weeds	POSPRE	-	395.5 g/1 pl				
4	COTORAN 4L	4 SC		32 fl oz/a	A		PRE Timing	PRE	2 L	33.33 mL/mx	104	202	305	406
	CAPAROL	4 F		24 fl oz/a	A		PRE Timing	PRE	2 L	25.0 mL/mx				
	ANTHEM FLEX	4 SE		3 oz/a	A		Pinhead Square Cotton - Pre to Weeds	POSPRE	2 L	3.125 mL/mx				
	AGRI-DEX	99 EC		1 % v/v	A		Pinhead Square Cotton - Pre to Weeds	POSPRE	2 L	20.0 mL/mx				
5	COTORAN 4L	4 SC		32 fl oz/a	A		PRE Timing	PRE	2 L	33.33 mL/mx	105	203	304	402
	CAPAROL	4 F		24 fl oz/a	A		PRE Timing	PRE	2 L	25.0 mL/mx				
	ROUNDUP POWERMAX	5.5 SL		32 oz/a	B		Postemergence - Pinhead Square Cotton	POSPOS	2 L	33.33 mL/mx				
	XTENDIMAX	2.9 SL		22 oz/a	B		Postemergence - Pinhead Square Cotton	POSPOS	2 L	22.92 mL/mx				
6	COTORAN 4L	4 SC		32 fl oz/a	A		PRE Timing	PRE	2 L	33.33 mL/mx	106	205	301	404
	CAPAROL	4 F		24 fl oz/a	A		PRE Timing	PRE	2 L	25.0 mL/mx				
	ROUNDUP POWERMAX	5.5 SL		32 oz/a	B		Postemergence - Pinhead Square Cotton	POSPOS	2 L	33.33 mL/mx				
	XTENDIMAX	2.9 SL		22 oz/a	B		Postemergence - Pinhead Square Cotton	POSPOS	2 L	22.92 mL/mx				
	DUAL II MAGNUM (7.64EC)	7.64 EC		16 oz/a	B		Postemergence - Pinhead Square Cotton	POSPOS	2 L	16.67 mL/mx				

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
208.333	mL	COTORAN 4L	4	LB/GAL	SC	
156.250	mL	CAPAROL	4	LB/GAL	F	
12.760	mL	ANTHEM FLEX	4	LB/GAL	SE	
3,954.855	g	AMSUL	100	%W/W	GR	
24.997	mL	AGRI-DEX	99	%	EC	
83.333	mL	ROUNDUP POWERMAX	5.5	LB/GAL	SL	
57.292	mL	XTENDIMAX	2.9	LB/GAL	SL	
20.833	mL	DUAL II MAGNUM (7.64EC)	7.64	LB/GAL	EC	

* 'Per area' calculations based on 4 replicates of 6.33 by 30 feet 'Plot' experimental units (area of one treatment).

* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2 L.