Weed Control Results for Tomatoes

Research Report

2001

D.E. Robinson, and K. McNaughton

ACKNOWLEDGEMENTS

Funds to support the 2001 research program were obtained from the Ontario Tomato Research Institute and a number of herbicide companies. The support and cooperation of these companies is greatly appreciated. We also appreciate the cooperation of the Ontario Tomato Research Insitute who have generously provided seed and plants for the research program:

As well we would like to take the opportunity to acknowledge the participation of the following cooperators:

Wayne Balmer – Ridgetown
Frank Beenackers – Duart
Don Crowe – Wallaceburg
Len Davies – Duart
Ed Gyetvai – Zone Centre
H.J. Heinz – Leamington
Harry Jaretzke – Wingham
Murray Kraemer – Mitchell
Paul Lantin – Comber
Don Little – Monkton
Dave Louwagie – Mitchell
Roland McAlpine – Alvinston
Brian Miller – Staffa
Paul Mistele – New Glasgow
Warren Myers – Thamesville
Nabisco Ltd. – Exeter
Ron Noorenberghe – Thamesville
Rob Regele – Seaforth
Jim Sheldon – Highgate
Norman Triest – Alvinston
Ron Van Damme – Alvinston
Ron Van Damme – Wallaceburg
John VanHerk – Mitchell
Brian Whyte – Seaforth

Technical Assistants:

Research Technicians:
Dave Bilyea
Todd Cowan
Kris McNaughton

Research Assistants:
Kristy Burns
Brianne Dennis
Jen Dennis
Tara Flanagan
Paula Garrett
Shauna Hearns
Joe Hoyles
Suzy Hoyles
Lori Klatt
Erin McNaughton
Adrienne Schaafsma
Sarah Snobelen
Steve Snobelen
Steve Vanstempvoort

It is hoped that the information provided by this research will further the science of weed control by assisting companies with the registration and labeling of their products. This information will also allow research and extension personnel to suggest proper herbicide recommendations, thereby enabling growers to achieve consistent, broad spectrum weed control with a minimum of crop damage.

D.E. Robinson
Ridgetown College/University of Guelph
N0P 2C0
(519) 674-1604
drobinso@ridgetownc.uoguelph.ca

2001
RIDGETOWN
WEATHER DATA

RAINFALL IN MM.

DATE	APRIL	MAY	JUNE	JULY	AUGUST	SEPT.	OCT.	NOV.
1	1.2	0	6.2	1.8	0	0	0	0
2	0.4	0	10.8	0	0	0	0	14.4
3	4.6	0	2.2	1.6	0	0	0	12.8
4	0	0.2	0	3.0	0	0	1.4	0
5	0.6	0.6	0	0	0	0	31.6	0
6	9.0	0	0.2	0	0	0	3.6	0
7	9.6	0.4	0	0	11.4	0	0.2	0
8	0	12	0	0	0	4.0	0	4.4
9	1.6	0	0	0	0	2.8	0	0
10	0	0	22.2	3.0	10.4	4.8	0	0
11	1.0	20	2.8	0	0	0	19.4	0
12	3.4	0	0	0	3.0	0	17.4	0
13	0	0	0	0	0	1.8	1.6	0
14	0	0.2	0	0	0	0	20.6	0.2
15	17.8	1.2	1.6	0	0	0	0	17.8
16	6.0	0	1.4	0	2.8	0	11.8	1.2
17	0.2	1.0	0	0	0	0	0.2	0
18	0	0.4	0	0	0.4	0	0	0.2
19	0	0	7.6	0	5.8	23.8	0	5.6
20	7.2	0	1.6	0	1.0	0	0	0
21	6.6	16.6	1.4	6.8	0	16.2	10.8	0
22	0	2.4	5.2	0.2	0.6	0.2	1.4	0
23	0	0.2	0	0	0.2	8.8	10.6	0
24	0	2.0	5.2	0	0	7.0	3.2	1.6
25	0	4.8	0	1.0	0	11.4	11.4	8.8
26	0.2	6.2	0	0	11.0	6.2	3.4	0
27	2.0	6.8	0	0	0.2	6.0	11.6	0.4
28	0	14.2	0	0	2.2	0.2	0	3.6
29	0	0.2	0	0	0	0	0	15.4
30	0	0	2.0	0	0	0	1.2	5.6
31		0		0	4.2		4.4	
TOTAL	71.4	89.4	70.4	17.4	53.2	93.2	165.8	92.0
30 YEAR AVG.	**80.2**	**75.4**	**80.0**	**83.6**	**100.0**	**90.7**	**62.2**	**80.0**

TEMPERATURE (C)

MEAN MAX	14.3	19.8	25.0	27.0	28.2	21.8	15.6	12.2
MEAN MIN	2.7	9.4	14.0	14.9	14.9	9.4	6.2	3.4
MEAN	8.5	14.6	19.5	21.0	21.6	15.6	10.9	7.8

TEMPERATURE, 30 YEAR AVERAGE (C)

MEAN MAX	12.4	19.5	24.5	27.1	25.8	22.0	15.2	7.9
MEAN MIN	2.4	8.4	13.8	16.2	15.3	11.7	5.7	0.8
MEAN	7.4	13.9	19.2	21.6	20.6	16.8	10.4	4.3

BAYER CODE ABBREVIATIONS

Code	Common Name	Scientific Name
ABUTH	Velvetleaf	*Abutilon theophrasti*
ACARH	Three-seeded mercury	*Acalypha rhombiodea*
AMAPO	Green pigweed	*Amaranthus powellii*
AMARE	Redroot pigweed	*Amaranthus retroflexus*
AMBEL	Common ragweed	*Ambrosia artemisiifolia*
ARTBI	Biennial wormwood	*Artemisia biennis*
CAPBP	Shepherd's-purse	*Capsella bursa-pastoris*
CCHPA	Longspine sandbur	*Cenchrus pauciflorus*
CHEAL	Common lamb's-quarter	*Chenopodium album*
CIRAR	Canada thistle	*Cirsium arvense*
CNISA	Hemp	*Cannabis sativa*
CONAR	Field bindweed	*Convolvulus arvensis*
EQUAR	Field horsetail	*Equisetum arvense*
ERIAN	Annual fleabane	*Erigeron annuss*
ERICA	Canada fleabane	*Erigeron canadensis*
ERYCH	Wormseed mustard	*Erysimum cheiranthoides*
EUPHE	Sun spurge	*Euphorbia heiocopia*
GAETE	Hempnettle	*Galeopsis tetrahit*
HIBTR	Flower-of-an-hour	*Hibiscus trionum*
LACSE	Prickly lettuce	*Lactuca serriola*
LAPCO	Nippleweed	*Lapsanna communus*
OXAST	Common yellow woodsorrel	*Oxalis stricta*
PLAMA	Broad-leaved plantain	*Plantago major*
POLCO	Wild buckwheat	*Polygonum convolvulus*
POLLA	Green smartweed	*Polygonum lapathifolium*
POLPE	Lady's-thumb	*Polygonum persicaria*
SINAR	Wild mustard	*Sinapis arvensis*
SIYAN	Bur-cucumber	*Sicyos angulatus*
SOLCA	Horsenettle	*Solanum carolinense*
SOLPT	Eastern black nightshade	*Solanum ptycanthum*
SONAR	Perennial sowthistle	*Sonchus arvensis*
SONAS	Spiny annual sowthistle	*Sonchus asper*
SONOL	Annual sowthistle	*Sonchus oleraceus*
SOOCA	Canada goldenrod	*Solidago canadensis*
STAPA	Marsh hedge-nettle	*Stachys palustris*
STEME	Common chickweed	*Stellaria media*
TAROF	Dandelion	*Taraxacum officinale*
THLAR	Field pennycress	*Thlaspi arvense*
TRFSS	Clover species	*Trifolum spp.*
XANST	Common cocklebur	*Xanthium strumarium*
AGRGI	Redtop	*Agrostis gigantea*
AGRRE	Quackgrass	*Agropyron repens*
DIGSA	Large crabgrass	*Digitaria sanguinalis*
ECHCG	Barnyard grass	*Echinochloa crus-galli*
PANCA	Witch grass	*Panicum capillare*
PANDI	Fall panicum	*Panicum dichotomiflorum*
PANMI	Proso millet	*Panicum miliaceum*
SETLU	Yellow foxtail	*Setaria glauca*
SETVI	Green foxtail	*Setaria viridis*

TABLE OF CONTENTS

PAGE:

THE EFFECT OF WEED MANAGEMENT PROGRAMS ON TOMATO ESTABLISHMENT AND YIELD

KRISTEN MCNAUGHTON, DARREN ROBINSON **Experiment ID: TO01A1**

CROP: LYPES (H9478). Planted: May-31-01, 29500 PL/HA, 5 CM Deep, 150 CM Row Width. Planting Method: TRANSPLANTED. Emerged On: May-31-01.
Expt. Design: RANDOMIZED COMPLETE BLOCK. Reps: 4. Plot Size: 1.5 M x 40 M. Expt. Location: RC- Range E7.

Site Description: Soil Texture: SANDY LOAM. %OM: 3.76 %Sand: 64.6 %Silt: 17.2 %Clay: 18.2 pH: 6.3

APPLICATION DESCRIPTION

Application:	A	B	C	D	E
Date :	May-18-01	Jun-14-01	Jun-28-01	Jul-11-01	Jul-26-01
Time of Day:	6:30 AM	5:45 AM	6:00 AM	8:20 PM	7:10 AM
Method :	CO2 SPRAY	CO2 SPRAY	CO2 SPRAY	CO2 SPRAY	CO2 SPRAY
Timing :	PPI	POST 1	POST 2	POST 3	POST 4
Placement :	SOIL	FOLIAR	FOLIAR	FOLIAR	FOLIAR
Air Temp. :	16.4 C	18.2 C	19.4 C	20 C	18 C
% Humidity :	82	95	90	62	85
Wind Speed :	1 KPH	0 KPH	0 KPH	0 KPH	2 KPH
Dew Present:	Y	Y	Y	N	Y
Soil Moist.:	MOIST	DRY	DRY	DRY	MOIST
Cloud Cover:	100%	0%	30%	50%	30%
Equipment :	CO2 SPRAY	CO2 SPRAY	CO2 SPRAY	CO2 SPRAY	CO2 SPRAY
Pressure :	207 kPa	207 kPa	207 kPa	207 kPa	207 kPa
Nozzle Type:	FLAT FAN	FLAT FAN	FLAT FAN	FLAT FAN	FLAT FAN
Nozzle Size:	8002 XR	8002 XR	8002 XR	8002 XR	8002 XR
Noz.Spacing:	50 CM	50 CM	50 CM	50 CM	50 CM
Boom Length:	1.5 M	1.5 M	1.5 M	1.5 M	1.5 M
Boom Height:	50 CM	50 CM	50 CM	50 CM	50 CM
Carrier :	WATER	WATER	WATER	WATER	WATER
Appl.Volume:	200 L/HA	200 L/HA	200 L/HA	200 L/HA	200 L/HA
Propellant :	CO2	CO2	CO2	CO2	CO2

STAGE AT APPLICATION

Crop 1 LYPES				
Height :	16 CM	22.5 CM	36.6 CM	42 CM
Weed 1 ABUTH	1 LF	3 LF	4 LF	6 LF
Stg.Scale:	2 CM	4.8 CM	20 CM	40 CM
Density :	4.5 SQ.M	3.5 SQ.M	1 SQ.M	1 SQ.M
Weed 2 AMARE	2 LF	10 LF	12 LF	16 LF
Stg.Scale:	1 CM	9.8 CM	25 CM	45 CM
Density :	11.5 SQ.M	5 SQ.M	0.5 SQ.M	0.5 SQ.M
Weed 3 AMBEL	5 LF	17 LF		
Stg.Scale:	13.4 CM	25.5 CM		
Density :	6.5 SQ.M	4 SQ.M		
Weed 4 CHEAL	3 LF	8 LF	6 LF	23 LF
Stg.Scale:	2.3 CM	11.1 CM	15 CM	14 CM
Density :	70 SQ.M	44 SQ.M	1 SQ.M	2 SQ.M
Weed 5 POLPE	3 LF	10 LF	8 LF	
Stg.Scale:	2.4 CM	10.5 CM	7 CM	
Density :	4.5 SQ.M	4.5 SQ.M	0.5 SQ.M	
Weed 6 SOLPT	5 LF	7 LF	9 LF	
Stg.Scale:	3.6 CM	12.4 CM	14 CM	
Density :	8.5 SQ.M	13 SQ.M	13.5 SQ.M	

Weed Code																							
Weed Code																				ABUTH		AMARE	
Crop Code								LYPES		LYPES		LYPES		LYPES		LYPES		LYPES		LYPES		LYPES	
Part Rated																							
Rating Data Type								INJURY		INJURY		INJURY		INJURY		INJURY		INJURY		CONTROL		CONTROL	
Rating Unit								%		%		%		%		%		%		%		%	
Rating Date								Jun-12-01		Jun-19-01		Jun-25-01		Jul-10-01		Jul-23-01		Aug-10-01		Jul-17-01		Jul-17-01	
Crop Stage								5-6 LF		8-9 LF		9-10 LF		10-12 LF		12-14 LF		16-20 LF		11-13 LF		11-13 LF	
Crop Stage Scale								15-18 CM		16-19 CM		24-30 CM		25-36 CM		30-40 CM		35-50 CM		45 CM		45 CM	
Weed Stage																				4 LF		14 LF	
Weed Density, Unit																				2 SQ.M		3.5 SQ.M	
Trt-Eval Interval								7 DAE		14 DAE		21 DAE		35 DAE		49 DAE		63 DAE		42 DAE		42 DAE	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code																
1	Untreated Check							0	c	0	c	0	a	0	b	0	a	0	b	0	d	0	c
2	trifluralin	480	EC	1105	G A/HA	ppi	A	1	b	0	c	0	a	0	b	0	a	0	b	31	c	98	ab
3	s-metolachlor	915	EC	1600	G A/HA	ppi	A	0	c	0	bc	0	a	0	b	0	a	0	b	79	b	93	b
4	metribuzin	75	DF	700	G A/HA	ppi	A	0	c	0	c	0	a	0	b	0	a	0	b	95	ab	97	ab
5	trifluralin	480	EC	1105	G A/HA	ppi	A	1	bc	0	bc	0	a	0	b	0	a	0	b	91	ab	100	a
	metribuzin	75	DF	700	G A/HA	ppi	A																
6	s-metolachlor	915	EC	1600	G A/HA	ppi	A	0	c	0	c	0	a	0	b	0	a	0	b	98	a	100	a
	metribuzin	75	DF	700	G A/HA	ppi	A																
7	trifluralin	480	EC	1008	G A/HA	ppi	A	2	a	1	a	0	a	0	a	0	a	0	b	92	ab	100	a
	s-metolachlor	915	EC	1260	G A/HA	ppi	A																
	metribuzin	75	DF	500	G A/HA	ppi	A																
8	s-metolachlor	915	EC	1140	G A/HA	ppi	A	0	c	0	c	0	a	0	b	0	a	0	b	97	a	100	a
	metribuzin	75	DF	150	G A/HA	post 1	B																
	metribuzin	75	DF	150	G A/HA	post 2	C																
	metribuzin	75	DF	150	G A/HA	post 3	D																
	metribuzin	75	DF	150	G A/HA	post 4	E																

THE EFFECT OF WEED MANAGEMENT PROGRAMS ON TOMATO ESTABLISHMENT AND YIELD

KRISTEN MCNAUGHTON, DARREN ROBINSON **Experiment ID: TO01A1**

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code															
Weed Code																			ABUTH		AMARE	
Crop Code								LYPES		LYPES		LYPES		LYPES		LYPES		LYPES	LYPES		LYPES	
Part Rated																						
Rating Data Type								INJURY		INJURY		INJURY		INJURY		INJURY		INJURY	CONTROL		CONTROL	
Rating Unit								%		%		%		%		%		%	%		%	
Rating Date								Jun-12-01		Jun-19-01		Jun-25-01		Jul-10-01		Jul-23-01		Aug-10-01	Jul-17-01		Jul-17-01	
Crop Stage								5-6 LF		8-9 LF		9-10 LF		10-12 LF		12-14 LF		16-20 LF	11-13 LF		11-13 LF	
Crop Stage Scale								15-18 CM		16-19 CM		24-30 CM		25-36 CM		30-40 CM		35-50 CM	45 CM		45 CM	
Weed Stage																			4 LF		14 LF	
Weed Density, Unit																			2 SQ.M		3.5 SQ.M	
Trt-Eval Interval								7 DAE		14 DAE		21 DAE		35 DAE		49 DAE		63 DAE	42 DAE		42 DAE	
9	s-metolachlor	915	EC	1140	G A/HA	ppi	A	0	c	1	ab	0	a	0	b	0	a	0	99	a	100	a
	metribuzin	75	DF	250	G A/HA	ppi	A															
	metribuzin	75	DF	150	G A/HA	post 1	B															
	metribuzin	75	DF	150	G A/HA	post 2	C															
	metribuzin	75	DF	150	G A/HA	post 3	D															
	metribuzin	75	DF	150	G A/HA	post 4	E															
10	metribuzin	75	DF	150	G A/HA	post 1	B	0	c	0	c	0	a	0	b	0	a	0	100	a	94	b
	metribuzin	75	DF	150	G A/HA	post 2	C															
	metribuzin	75	DF	150	G A/HA	post 3	D															
	metribuzin	75	DF	150	G A/HA	post 4	E															
11	metribuzin	75	DF	150	G A/HA	post 1	B	0	c	0	c	0	a	0	b	0	a	0	96	ab	100	a
	metribuzin	75	DF	150	G A/HA	post 2	C															
	rimsulfuron	25	DF	15	G A/HA	post 2	C															
	Agral 90		SO	0.200	% V/V	post 2	C															
	metribuzin	75	DF	150	G A/HA	post 3	D															
	metribuzin	75	DF	150	G A/HA	post 4	E															
12	metribuzin	75	DF	150	G A/HA	post 1	B	0	c	1	abc	0	a	0	b	0	a	0	100	a	100	a
	metribuzin	75	DF	150	G A/HA	post 2	C															
	thifensulfuron-methyl	75	DF	6	G A/HA	post 2	C															
	Agral 90		SO	0.200	% V/V	post 2	C															
	metribuzin	75	DF	150	G A/HA	post 3	D															
	metribuzin	75	DF	150	G A/HA	post 4	E															
13	metribuzin	75	DF	150	G A/HA	post 1	B	0	c	0	c	0	a	0	b	0	a	0	100	a	97	ab
	metribuzin	75	DF	150	G A/HA	post 2	C															
	fluazifop-p-butyl	125	EC	250	G A/HA	post 2	C															
	metribuzin	75	DF	150	G A/HA	post 3	D															
	metribuzin	75	DF	150	G A/HA	post 4	E															
LSD (P=.05)								0.7		0.6		0.0		0.2		0.3		0.2	17.6		5.7	
Standard Deviation								0.5		0.4		0.0		0.1		0.2		0.1	12.3		4.0	
CV								173.7		209.03		0.0		721.11		488.19		721.11	14.86		4.37	

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

THE EFFECT OF WEED MANAGEMENT PROGRAMS ON TOMATO ESTABLISHMENT AND YIELD

KRISTEN MCNAUGHTON, DARREN ROBINSON

Experiment ID: TO01A1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code													
Weed Code								AMBEL		CAPBP		CHEAL		SOLPT		SETVI		ABUTH		AMARE	
Crop Code								LYPES		LYPES		LYPES		LYPES		LYPES		LYPES		LYPES	
Part Rated																					
Rating Data Type								CONTROL		CONTROL		CONTROL		CONTROL		CONTROL		CONTROL		CONTROL	
Rating Unit								%		%		%		%		%		%		%	
Rating Date								Jul-17-01		Jul-17-01		Jul-17-01		Jul-17-01		Jul-17-01		Aug-13-01		Aug-13-01	
Crop Stage								11-13 LF		11-13 LF		11-13 LF		11-13 LF		11-13 LF		16-20 LF		16-20 LF	
Crop Stage Scale								45 CM		45 CM		45 CM		45 CM		45 CM		50 CM		50 CM	
Weed Stage								20 LF		13 LF		15 LF		6 LF		7 LF		5 LF		17 LF	
Weed Density, Unit								4.5 SQ.M		3.5 SQ.M		63 SQ.M		2.5 SQ.M		6 SQ.M		5 SQ.M		6.5 SQ.M	
Trt-Eval Interval								42 DAE		42 DAE		42 DAE		42 DAE		42 DAE		70 DAE		70 DAE	
1	Untreated Check							0	d	0	d	0	f	0	f	0	e	0	e	0	d
2	trifluralin	480	EC	1105	G A/HA	ppi	A	73	bc	0	d	83	d	73	bc	91	abc	49	d	94	abc
3	s-metolachlor	915	EC	1600	G A/HA	ppi	A	73	bc	86	b	58	e	91	ab	98	ab	75	c	89	c
4	metribuzin	75	DF	700	G A/HA	ppi	A	100	a	99	ab	100	a	68	cd	99	a	95	ab	95	abc
5	trifluralin	480	EC	1105	G A/HA	ppi	A	100	a	99	a	97	abc	65	cde	100	a	78	c	99	ab
	metribuzin	75	DF	700	G A/HA	ppi	A														
6	s-metolachlor	915	EC	1600	G A/HA	ppi	A	99	a	100	a	100	a	97	a	100	a	96	ab	100	a
	metribuzin	75	DF	700	G A/HA	ppi	A														
7	trifluralin	480	EC	1008	G A/HA	ppi	A	91	abc	100	a	100	a	100	a	99	a	86	bc	100	a
	s-metolachlor	915	EC	1260	G A/HA	ppi	A														
	metribuzin	75	DF	500	G A/HA	ppi	A														
8	s-metolachlor	915	EC	1140	G A/HA	ppi	A	71	c	98	ab	97	ab	91	ab	100	a	96	ab	100	a
	metribuzin	75	DF	150	G A/HA	post 1	B														
	metribuzin	75	DF	150	G A/HA	post 2	C														
	metribuzin	75	DF	150	G A/HA	post 3	D														
	metribuzin	75	DF	150	G A/HA	post 4	E														
9	s-metolachlor	915	EC	1140	G A/HA	ppi	A	98	a	100	a	100	a	93	ab	100	a	100	a	100	a
	metribuzin	75	DF	250	G A/HA	ppi	A														
	metribuzin	75	DF	150	G A/HA	post 1	B														
	metribuzin	75	DF	150	G A/HA	post 2	C														
	metribuzin	75	DF	150	G A/HA	post 3	D														
	metribuzin	75	DF	150	G A/HA	post 4	E														
10	metribuzin	75	DF	150	G A/HA	post 1	B	83	abc	86	b	97	ab	50	de	89	bc	100	ab	93	bc
	metribuzin	75	DF	150	G A/HA	post 2	C														
	metribuzin	75	DF	150	G A/HA	post 3	D														
	metribuzin	75	DF	150	G A/HA	post 4	E														
11	metribuzin	75	DF	150	G A/HA	post 1	B	75	bc	88	ab	89	cd	47	e	83	c	98	ab	99	ab
	metribuzin	75	DF	150	G A/HA	post 2	C														
	rimsulfuron	25	DF	15	G A/HA	post 2	C														
	Agral 90		SO	0.200	% V/V	post 2	C														
	metribuzin	75	DF	150	G A/HA	post 3	D														
	metribuzin	75	DF	150	G A/HA	post 4	E														
12	metribuzin	75	DF	150	G A/HA	post 1	B	91	ab	88	ab	100	a	46	e	70	d	100	a	100	a
	metribuzin	75	DF	150	G A/HA	post 2	C														
	thifensulfuron-methyl	75	DF	6	G A/HA	post 2	C														
	Agral 90		SO	0.200	% V/V	post 2	C														
	metribuzin	75	DF	150	G A/HA	post 3	D														
	metribuzin	75	DF	150	G A/HA	post 4	E														
13	metribuzin	75	DF	150	G A/HA	post 1	B	88	abc	65	c	91	bc	65	cde	100	a	98	ab	96	ab
	metribuzin	75	DF	150	G A/HA	post 2	C														
	fluazifop-p-butyl	125	EC	250	G A/HA	post 2	C														
	metribuzin	75	DF	150	G A/HA	post 3	D														
	metribuzin	75	DF	150	G A/HA	post 4	E														
LSD (P=.05)								19.3		12.5		8.2		20.5		9.0		13.5		6.5	
Standard Deviation								13.5		8.7		5.7		14.4		6.3		9.5		4.6	
CV								16.9		11.27		6.69		21.14		7.29		11.51		5.08	

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

THE EFFECT OF WEED MANAGEMENT PROGRAMS ON TOMATO ESTABLISHMENT AND YIELD

KRISTEN MCNAUGHTON, DARREN ROBINSON **Experiment ID: TO01A1**

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	AMBEL LYPES		CAPBP LYPES		CHEAL LYPES		SOLPT LYPES		SETVI LYPES		LYPES RED YIELD		LYPES GREEN YIELD	
	Weed Code							AMBEL		CAPBP		CHEAL		SOLPT		SETVI					
	Crop Code							LYPES		LYPES		LYPES		LYPES		LYPES		LYPES		LYPES	
	Part Rated																	RED		GREEN	
	Rating Data Type							CONTROL		CONTROL		CONTROL		CONTROL		CONTROL		YIELD		YIELD	
	Rating Unit							%		%		%		%		%		T/HA		T/HA	
	Rating Date							Aug-13-01		Aug-13-01		Aug-13-01		Aug-13-01		Aug-13-01		Aug-29-01		Aug-29-01	
	Crop Stage							16-20 LF		16-20 LF		16-20 LF		16-20 LF		16-20 LF		WEEDY		WEEDY	
	Crop Stage Scale							50 CM		50 CM		50 CM		50 CM		50 CM					
	Weed Stage							20 LF		13 LF		18 LF		9 LF		15 LF					
	Weed Density, Unit							6.5 SQ.M		4 SQ.M		74.5SQ.M		2.5 SQ.M		3.5 SQ.M					
	Trt-Eval Interval							70 DAE		70 DAE		70 DAE		70 DAE		70 DAE					
1	Untreated Check							0	f	0	c	0	e	0	e	0	c	3.9	e	1.4	e
2	trifluralin	480	EC	1105	G A/HA	ppi	A	60	de	8	c	70	c	71	b	96	a	12.9	de	4.5	de
3	s-metolachlor	915	EC	1600	G A/HA	ppi	A	65	cde	89	b	16	d	89	a	100	a	14.2	cd	4.5	de
4	metribuzin	75	DF	700	G A/HA	ppi	A	97	ab	100	a	98	a	50	c	93	a	24.8	ab	10.4	ab
5	trifluralin	480	EC	1105	G A/HA	ppi	A	96	ab	100	a	94	ab	55	c	100	a	16.4	bcd	8.4	a-d
	metribuzin	75	DF	700	G A/HA	ppi	A														
6	s-metolachlor	915	EC	1600	G A/HA	ppi	A	99	ab	100	a	99	a	94	a	100	a	19.4	bcd	9.6	abc
	metribuzin	75	DF	700	G A/HA	ppi	A														
7	trifluralin	480	EC	1008	G A/HA	ppi	A	88	abc	100	a	96	a	94	a	95	a	25.3	ab	9.0	abc
	s-metolachlor	915	EC	1260	G A/HA	ppi	A														
	metribuzin	75	DF	500	G A/HA	ppi	A														
8	s-metolachlor	915	EC	1140	G A/HA	ppi	A	54	e	100	a	99	a	91	a	99	a	24.4	ab	10.8	ab
	metribuzin	75	DF	150	G A/HA	post 1	B														
	metribuzin	75	DF	150	G A/HA	post 2	C														
	metribuzin	75	DF	150	G A/HA	post 3	D														
	metribuzin	75	DF	150	G A/HA	post 4	E														
9	s-metolachlor	915	EC	1140	G A/HA	ppi	A	99	a	100	a	100	a	93	a	100	a	20.4	a-d	11.6	a
	metribuzin	75	DF	250	G A/HA	ppi	A														
	metribuzin	75	DF	150	G A/HA	post 1	B														
	metribuzin	75	DF	150	G A/HA	post 2	C														
	metribuzin	75	DF	150	G A/HA	post 3	D														
	metribuzin	75	DF	150	G A/HA	post 4	E														
10	metribuzin	75	DF	150	G A/HA	post 1	B	75	b-e	95	ab	95	a	35	d	81	b	24.5	ab	8.2	a-d
	metribuzin	75	DF	150	G A/HA	post 2	C														
	metribuzin	75	DF	150	G A/HA	post 3	D														
	metribuzin	75	DF	150	G A/HA	post 4	E														
11	metribuzin	75	DF	150	G A/HA	post 1	B	78	a-d	98	a	89	ab	34	d	81	b	25.3	ab	7.5	bcd
	metribuzin	75	DF	150	G A/HA	post 2	C														
	rimsulfuron	25	DF	15	G A/HA	post 2	C														
	Agral 90		SO	0.200	% V/V	post 2	C														
	metribuzin	75	DF	150	G A/HA	post 3	D														
	metribuzin	75	DF	150	G A/HA	post 4	E														
12	metribuzin	75	DF	150	G A/HA	post 1	B	85	abc	100	a	98	a	34	d	73	b	23.0	abc	6.0	cd
	metribuzin	75	DF	150	G A/HA	post 2	C														
	thifensulfuron-methyl	75	DF	6	G A/HA	post 2	C														
	Agral 90		SO	0.200	% V/V	post 2	C														
	metribuzin	75	DF	150	G A/HA	post 3	D														
	metribuzin	75	DF	150	G A/HA	post 4	E														
13	metribuzin	75	DF	150	G A/HA	post 1	B	84	a-d	88	b	80	bc	44	cd	96	a	28.7	a	9.1	abc
	metribuzin	75	DF	150	G A/HA	post 2	C														
	fluazifop-p-butyl	125	EC	250	G A/HA	post 2	C														
	metribuzin	75	DF	150	G A/HA	post 3	D														
	metribuzin	75	DF	150	G A/HA	post 4	E														
LSD (P=.05)								23.9		8.5		13.9		12.5		10.8		9.00		4.08	
Standard Deviation								16.7		6.0		9.8		8.8		7.6		6.30		2.85	
CV								22.22		7.23		12.26		14.56		8.85		31.09		36.67	

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

THE EFFECT OF WEED MANAGEMENT PROGRAMS ON TOMATO ESTABLISHMENT AND YIELD

KRISTEN MCNAUGHTON, DARREN ROBINSON

Experiment ID: TO01A1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code											
Weed Code																		
Crop Code								LYPES		LYPES		LYPES		LYPES		LYPES		LYPES
Part Rated								ROT		RED+GR		RED		GREEN		ROT		RED+GR
Rating Data Type								YIELD		YIELD		YIELD		YIELD		YIELD		YIELD
Rating Unit								T/HA		T/HA		T/HA		T/HA		T/HA		T/HA
Rating Date								Aug-29-01		Aug-29-01		Aug-29-01		Aug-29-01		Aug-29-01		Aug-29-01
Crop Stage								WEEDY		WEEDY		WEEDFREE		WEEDFREE		WEEDFREE		WEEDFREE
Crop Stage Scale																		
Weed Stage																		
Weed Density, Unit																		
Trt-Eval Interval																		
1	Untreated Check							1.6	c	5.3	e	23.1	c	8.5	c	3.0	a	31.6	c
2	trifluralin	480	EC	1105	G A/HA	ppi	A	3.0	bc	17.4	d	29.6	abc	10.9	abc	3.6	a	40.5	abc
3	s-metolachlor	915	EC	1600	G A/HA	ppi	A	2.4	c	18.7	cd	25.1	bc	12.2	ab	3.2	a	37.2	abc
4	metribuzin	75	DF	700	G A/HA	ppi	A	3.7	bc	35.3	ab	26.7	abc	12.8	a	5.2	a	39.5	abc
5	trifluralin	480	EC	1105	G A/HA	ppi	A	5.6	ab	24.9	bcd	22.9	c	10.9	abc	4.8	a	33.7	c
	metribuzin	75	DF	700	G A/HA	ppi	A												
6	s-metolachlor	915	EC	1600	G A/HA	ppi	A	5.6	ab	29.0	abc	23.6	c	12.3	ab	4.4	a	36.0	bc
	metribuzin	75	DF	700	G A/HA	ppi	A												
7	trifluralin	480	EC	1008	G A/HA	ppi	A	3.8	bc	34.3	ab	27.1	abc	10.9	abc	4.7	a	38.0	abc
	s-metolachlor	915	EC	1260	G A/HA	ppi	A												
	metribuzin	75	DF	500	G A/HA	ppi	A												
8	s-metolachlor	915	EC	1140	G A/HA	ppi	A	2.7	c	35.3	ab	28.3	abc	12.6	ab	3.0	a	40.9	abc
	metribuzin	75	DF	150	G A/HA	post 1	B												
	metribuzin	75	DF	150	G A/HA	post 2	C												
	metribuzin	75	DF	150	G A/HA	post 3	D												
	metribuzin	75	DF	150	G A/HA	post 4	E												
9	s-metolachlor	915	EC	1140	G A/HA	ppi	A	6.6	a	32.0	ab	26.4	abc	10.0	bc	4.2	a	36.4	bc
	metribuzin	75	DF	250	G A/HA	ppi	A												
	metribuzin	75	DF	150	G A/HA	post 1	B												
	metribuzin	75	DF	150	G A/HA	post 2	C												
	metribuzin	75	DF	150	G A/HA	post 3	D												
	metribuzin	75	DF	150	G A/HA	post 4	E												
10	metribuzin	75	DF	150	G A/HA	post 1	B	3.5	bc	32.7	ab	26.0	abc	10.8	abc	3.8	a	36.8	abc
	metribuzin	75	DF	150	G A/HA	post 2	C												
	metribuzin	75	DF	150	G A/HA	post 3	D												
	metribuzin	75	DF	150	G A/HA	post 4	E												
11	metribuzin	75	DF	150	G A/HA	post 1	B	3.1	bc	32.8	ab	35.2	ab	10.3	abc	2.8	a	45.5	ab
	metribuzin	75	DF	150	G A/HA	post 2	C												
	rimsulfuron	25	DF	15	G A/HA	post 2	C												
	Agral 90		SO	0.200	% V/V	post 2	C												
	metribuzin	75	DF	150	G A/HA	post 3	D												
	metribuzin	75	DF	150	G A/HA	post 4	E												
12	metribuzin	75	DF	150	G A/HA	post 1	B	4.1	abc	29.0	abc	25.6	bc	10.2	abc	4.4	a	35.8	bc
	metribuzin	75	DF	150	G A/HA	post 2	C												
	thifensulfuron-methyl	75	DF	6	G A/HA	post 2	C												
	Agral 90		SO	0.200	% V/V	post 2	C												
	metribuzin	75	DF	150	G A/HA	post 3	D												
	metribuzin	75	DF	150	G A/HA	post 4	E												
13	metribuzin	75	DF	150	G A/HA	post 1	B	3.7	bc	37.8	a	36.4	a	10.4	abc	3.7	a	46.8	a
	metribuzin	75	DF	150	G A/HA	post 2	C												
	fluazifop-p-butyl	125	EC	250	G A/HA	post 2	C												
	metribuzin	75	DF	150	G A/HA	post 3	D												
	metribuzin	75	DF	150	G A/HA	post 4	E												
LSD (P=.05)								2.66		11.35		10.50		2.69		2.87		10.30	
Standard Deviation								1.86		7.95		7.35		1.88		2.01		7.21	
CV								48.87		28.33		26.82		17.14		51.49		18.78	

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

Trial Comments

Conclusions: One half of this trial was maintained weed-free to examine the effect of various weed management programs on visual injury and yield in processing tomatoes. The remaining half of the trial was not hand-weeded to test for weed control efficacy of each herbicide program.

There was no commercially significant visual injury in any of the treatments, including POST tank mix applications of metribuzin + rimsulfuron and metribuzin + thifensulfuron. Yields were greatly reduced in all treatments, including the check plots, likely as a result of the extended period without rainfall in June, July and August. Yields were greatest in the s-metolachlor + metribuzin (PPI) treatments, with a trend to increased yield when followed by sequential POST microrate applications of metribuzin.

Excellent season long control of AMBEL, CAPBP, CHEAL, SETVI, SOLPT and ABUTH was recorded in tank mixes of s-metolachlor and metribuzin (PPI), with and without sequential POST microrate applications of metribuzin.

WEED MANAGEMENT IN TOMATOES WITH CLOMAZONE

KRISTEN MCNAUGHTON, DARREN ROBINSON **Experiment ID: TO01A2**

CROP: LYPES (H9478). Planted: May-31-01, 29500 PL/HA, 5 CM Deep, 150 CM Row Width. Planting Method: TRANSPLANTED. Emerged On: May-31-01.
Expt. Design: RANDOMIZED COMPLETE BLOCK. Reps: 4. Plot Size: 1.5 M x 40 M. Expt. Location: RC- Range E7.

Site Description: Soil Texture: SANDY LOAM. %OM: 3.76 %Sand: 64.6 %Silt: 17.2 %Clay: 18.2 pH: 6.3

APPLICATION DESCRIPTION
Application: A
Date : May-30-01
Time of Day: 8:30 PM
Method : CO2 SPRAY
Timing : PRE-T
Placement : SOIL
Air Temp. : 6.7 C
% Humidity : 90
Wind Speed : 0 KPH
Dew Present: Y
Soil Moist.: MOIST
Cloud Cover: 50%
Equipment : CO2 SPRAY
Pressure : 207 kPa
Nozzle Type: FLAT FAN
Nozzle Size: 8002 XR
Noz.Spacing: 50 CM
Boom Length: 1.5 M
Boom Height: 50 CM
Carrier : WATER
Appl.Volume: 200 L/HA
Propellant : CO2

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code															
Weed Code								LYPES		LYPES		LYPES		AMARE LYPES		CAPBP LYPES		CHEAL LYPES		SOLPT LYPES		AMARE LYPES	
Crop Code																							
Part Rated																							
Rating Data Type								INJURY		INJURY		INJURY		CONTROL		CONTROL		CONTROL		CONTROL		CONTROL	
Rating Unit								%		%		%		%		%		%		%		%	
Rating Date								Jun-12-01		Jun-19-01		Jul-2-01		Jul-20-01		Jul-20-01		Jul-20-01		Jul-20-01		Aug-13-01	
Crop Stage								5-6 LF		7-9 LF		11-13 LF		12-14 LF		12-14 LF		12-14 LF		12-14 LF		20-30 LF	
Crop Stage Scale								15-20 CM		16-22 CM		36-45 CM		50 CM		50 CM		50 CM		50 CM		60 CM	
Weed Stage														15 LF		9 LF		14 LF		9 LF		18 LF	
Weed Density, Unit														13.5SQ.M		7.5 SQ.M		50 SQ.M		2.5 SQ.M		16.5SQ.M	
Trt-Eval Interval								7 DAE		14 DAE		28 DAE		42 DAE		42 DAE		42 DAE		42 DAE		70 DAE	
1	Untreated Check							0	e	0	d	0	c	0	d	0	e	0	e	0	d	0	c
2	clomazone	360	EC	120	G A/HA	pre-t	A	2	d	0	d	0	c	21	cd	47	d	21	d	56	c	44	ab
3	clomazone	360	EC	240	G A/HA	pre-t	A	2	d	0	d	0	c	24	c	69	c	45	c	64	bc	29	b
4	clomazone	360	EC	360	G A/HA	pre-t	A	4	c	1	cd	0	c	37	bc	73	bc	59	b	67	abc	49	ab
5	clomazone	360	EC	480	G A/HA	pre-t	A	5	c	1	c	0	c	55	ab	85	abc	72	ab	75	ab	43	ab
6	clomazone	360	EC	600	G A/HA	pre-t	A	6	b	4	b	1	ab	61	a	88	ab	78	a	78	ab	59	a
7	clomazone	360	EC	720	G A/HA	pre-t	A	8	a	6	a	1	bc	70	a	91	a	74	a	80	ab	63	a
8	clomazone	360	EC	840	G A/HA	pre-t	A	8	a	6	a	2	a	64	a	93	a	80	a	83	a	58	a
LSD (P=.05)								1.2		1.0		0.7		21.7		16.9		13.7		16.8		26.8	
Standard Deviation								0.8		0.7		0.4		14.8		11.5		9.3		11.5		18.2	
CV								19.41		29.34		109.51		35.65		16.9		17.31		18.2		42.48	

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

WEED MANAGEMENT IN TOMATOES WITH CLOMAZONE

KRISTEN MCNAUGHTON, DARREN ROBINSON

Experiment ID: TO01A2

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code													
Weed Code								CAPBP		CHEAL		SOLPT								
Crop Code								LYPES		LYPES		LYPES		LYPES		LYPES		LYPES		LYPES
Part Rated														RED		GREEN		ROT		RED+GR
Rating Data Type								CONTROL		CONTROL		CONTROL		YIELD		YIELD		YIELD		YIELD
Rating Unit								%		%		%		T/HA		T/HA		T/HA		T/HA
Rating Date								Aug-13-01		Aug-13-01		Aug-13-01		Sep-7-01		Sep-7-01		Sep-7-01		Sep-7-01
Crop Stage								20-30 LF		20-30 LF		20-30 LF		WEEDFREE		WEEDFREE		WEEDFREE		WEEDFREE
Crop Stage Scale								60 CM		60 CM		60 CM								
Weed Stage								11 LF		18 LF		12 LF								
Weed Density, Unit								7.5 SQ.M		76.5SQ.M		9.5 SQ.M								
Trt-Eval Interval								70 DAE		70 DAE		70 DAE								
1	Untreated Check							0	d	0	d	0	c	28.9	a	12.4	ab	3.2	a	41.3 a
2	clomazone	360	EC	120	G A/HA	pre-t	A	66	bc	20	cd	63	b	28.0	a	9.7	b	3.0	a	37.7 a
3	clomazone	360	EC	240	G A/HA	pre-t	A	61	c	36	bc	71	ab	27.5	a	13.1	ab	4.3	a	40.5 a
4	clomazone	360	EC	360	G A/HA	pre-t	A	78	b	55	ab	66	ab	30.1	a	10.0	b	3.6	a	40.1 a
5	clomazone	360	EC	480	G A/HA	pre-t	A	73	bc	57	ab	74	a	31.3	a	12.1	ab	3.3	a	43.4 a
6	clomazone	360	EC	600	G A/HA	pre-t	A	96	a	69	a	71	ab	33.5	a	11.8	ab	2.6	a	45.3 a
7	clomazone	360	EC	720	G A/HA	pre-t	A	95	a	69	a	74	a	33.9	a	11.7	ab	2.8	a	45.6 a
8	clomazone	360	EC	840	G A/HA	pre-t	A	96	a	70	a	75	a	29.9	a	14.1	a	4.0	a	44.0 a
LSD (P=.05)								16.1		22.2		9.0		8.41		3.82		2.38		8.52
Standard Deviation								10.9		15.1		6.1		5.72		2.60		1.62		5.79
CV								15.5		32.08		9.87		18.81		21.9		48.13		13.71

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

Trial Comments

Conclusions: One half of the trial was maintained weed free to examine the effect of clomazone rates of 0, 120, 240, 360, 480, 600, 720 and 840 g a.i. ha-1on visual injury and yield in processing tomatoes. The other half of the trial was not hand-weeded to test for efficacy of clomazone.

There was no commercially significant injury at any of the rates tested, though early season injury was noted, which increased with clomazone rate. The plants outgrew most or all of the visual injury by the end of the growing season.

Clomazone provided good to excellent early season control of CHEAL, SOLPT and CAPBU, and fair control of AMARE, when applied preemergence at 840 g a.i. ha-1. Preemergence clomazone gave only fair season-long control of CHEAL and SOLPT, due to late-emerging individuals.

THIFENSULFURON-METHYL TOLERANCE EVALUATION IN PROCESSING TOMATOES

Trial ID: TO01C1 Study Dir.: KRISTEN MCNAUGHTON
Location: RC - Range E7 Investigator: DARREN ROBINSON

GENERAL TRIAL INFORMATION

CROP AND WEED DESCRIPTION

	Weed Code	Common Name	Scientific Name
1.	ABUTH	VELVETLEAF	ABUTILON THEOPHRASTI MEDIK.
2.	AMARE	PIGWEED, REDROOT	AMARANTHUS RETROFLEXUS L.
3.	CHEAL	LAMBSQUARTERS, COMMON	CHENOPODIUM ALBUM L.
4.	SETVI	FOXTAIL, GREEN	SETARIA VIRIDIS (L.) P.BEAUV.

Crop 1: LYPES **Variety:** VARIOUS
Planting Date: May-31-01 **Planting Method:** TRANSPLANTED
Rate: 29500 PL/HA **Depth:** 5 CM
Row Spacing: 150 CM
Emergence Date: May-31-01

SITE AND DESIGN

Plot Width, Unit: 2 M **Plot Length, Unit:** 40 M **Reps:** 4
Tillage Type: CONVENTIONAL **Study Design:** SPLIT-PLOT

MAINTENANCE

Field Prep./Maintenance: COVER SPRAY OF METOLACHLOR (1200 G/HA)AND METRIBUZIN (375 G/HA)

SOIL DESCRIPTION

% Sand: 62.6 **% OM:** 3.53 **Texture:** SANDY LOAM
% Silt: 19.7 **pH:** 6.3
% Clay: 17.7

APPLICATION DESCRIPTION

	A
Application Date:	Jun-21-01
Time of Day:	6:00 AM
Application Method:	CO2 SPRAY
Application Timing:	POST
Applic. Placement:	FOLIAR
Air Temp., Unit:	14.6 C
% Relative Humidity:	91
Wind Velocity, Unit:	2 KPH
Dew Presence (Y/N):	Y
Soil Temp., Unit:	16 C
Soil Moisture:	MOIST
% Cloud Cover:	40

APPLICATION EQUIPMENT

	A
Appl. Equipment:	CO2 SPRAY
Operating Pressure:	207 kPa
Nozzle Type:	FLAT FAN
Nozzle Size:	8002 XR
Nozzle Spacing, Unit:	50 CM
Boom Length, Unit:	1.5 M
Boom Height, Unit:	50 CM
Carrier:	WATER
Spray Volume, Unit:	200 L/HA
Propellant:	CO2

WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	ABUTH COT.
Stage Scale:	0.5 CM
Density, Unit:	1 SQ.M
Weed 2 Code, Stage:	AMARE 4 LF
Stage Scale:	4.3 CM
Density, Unit:	1.5 SQ.M
Weed 3 Code, Stage:	CHEAL 4 LF
Stage Scale:	4.5 CM
Density, Unit:	1 SQ.M
Weed 4 Code, Stage:	SETVI 2 LF
Stage Scale:	8 CM
Density, Unit:	1 SQ.M

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	LYPES
Stage Scale:	8 LF
Height, Unit:	17.3 CM

THIFENSULFURON-METHYL TOLERANCE EVALUATION IN PROCESSING TOMATOES

KRISTEN MCNAUGHTON, DARREN ROBINSON

Experiment ID: TOO1C1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	LYPES INJURY % Jun-27-01 8-10 LF 18-24 CM 7 DAT	LYPES INJURY % Jul-5-01 12-14 LF 30-38 CM 14 DAT	LYPES INJURY % Jul-20-01 16-18 LF 45-55 CM 28 DAT	LYPES 5 PLNT FRESH WT KG Aug-2-01 42 DAT	LYPES 5 PLNT DRY WT KG	LYPES RED YIELD T/HA WEEDFREE	LYPES GREEN YIELD T/HA WEEDFREE
TABLE OF R MEANS														
	Replicate 1							0	0	0	3.8	0.5	30.8	8.6
	Replicate 2							0	0	0	3.9	0.5	29.7	8.7
	Replicate 3							0	0	0	4.1	0.4	29.6	11.9
	Replicate 4							0	0	0	3.7	0.4	22.5	11.1
TABLE OF A MEANS														
1	Check							0a	0a	0a	3.9	0.5	25.6	10.1
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	0a	0a	0a	4.0	0.5	31.3	10.0
2	Agral 90		SO	0.100	% V/V	Post	A							
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	1b	1b	0a	3.7	0.4	27.6	10.1
3	Agral 90		SO	0.200	% V/V	Post	A							
							LSD=	0	0	0	NS	NS	NS	NS
							CV=	132	99	0	66	61	88	36
TABLE OF B MEANS														
1	CC 337							0	0	0	3.5	0.5	23.0	11.7
2	H 9144							0	0	0	4.2	0.5	30.0	10.6
3	H 9314							0	0	0	3.8	0.5	24.8	9.6
4	H 9478							0	0	0	3.8	0.4	21.9	8.6
5	H 9492							0	0	0	3.2	0.5	22.8	10.5
6	H 9553							0	0	0	3.2	0.5	25.9	10.9
7	H 9909							2	2	1	4.5	0.5	32.1	9.2
8	N 1069							3	3	2	4.0	0.4	31.9	7.5
9	N 1082							0	0	0	3.7	0.3	29.6	8.5
10	N 1480E							0	0	0	4.1	0.5	28.8	9.3
11	N 1480L							0	0	0	3.9	0.5	26.2	10.8
12	N 1522							0	0	0	3.2	0.4	26.3	9.3
13	PETO 696							0	0	0	5.3	0.6	42.7	14.5
TABLE OF AB MEANS														
1	Check							0a	0a	0a	3.8	0.5	19.9	12.0
1	CC 337													
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	0a	0a	0a	4.2	0.5	27.4	11.2
2	Agral 90		SO	0.100	% V/V	Post	A							
1	CC 337													
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	0a	0a	0a	2.5	0.4	21.8	11.8
3	Agral 90		SO	0.200	% V/V	Post	A							
1	CC 337													
1	Check							0a	0a	0a	4.4	0.5	26.8	10.7
2	H 9144													
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	0a	0a	0a	4.3	0.5	35.9	11.4
2	Agral 90		SO	0.100	% V/V	Post	A							
2	H 9144													
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	0a	0a	0a	3.8	0.4	27.5	9.8
3	Agral 90		SO	0.200	% V/V	Post	A							
2	H 9144													
1	Check							0a	0a	0a	4.1	0.5	22.7	10.7
3	H 9314													
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	0a	0a	0a	4.1	0.5	27.6	8.1
2	Agral 90		SO	0.100	% V/V	Post	A							
3	H 9314													
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	0a	0a	0a	3.4	0.5	24.2	9.9
3	Agral 90		SO	0.200	% V/V	Post	A							
3	H 9314													
1	Check							0a	0a	0a	4.1	0.3	21.7	8.9
4	H 9478													
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	0a	0a	0a	3.9	0.5	22.4	8.6
2	Agral 90		SO	0.100	% V/V	Post	A							
4	H 9478													
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	0a	0a	0a	3.5	0.4	21.4	8.2
3	Agral 90		SO	0.200	% V/V	Post	A							
4	H 9478													
1	Check							0a	0a	0a	3.3	0.5	21.3	10.5
5	H 9492													
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	0a	0a	0a	3.2	0.4	20.9	11.0
2	Agral 90		SO	0.100	% V/V	Post	A							
5	H 9492													

THIFENSULFURON-METHYL TOLERANCE EVALUATION IN PROCESSING TOMATOES

KRISTEN MCNAUGHTON, DARREN ROBINSON

Experiment ID: TOO1C1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	LYPES INJURY 8-10 LF 18-24 CM 7 DAT %	LYPES INJURY 12-14 LF 30-38 CM 14 DAT %	LYPES INJURY 16-18 LF 45-55 CM 28 DAT %	LYPES 5 PLNT FRESH WT Aug-2-01 KG	LYPES 5 PLNT DRY WT KG	LYPES RED YIELD WEEDFREE T/HA	LYPES GREEN YIELD WEEDFREE T/HA
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	0a	0a	0a	3.1	0.4	26.2	10.1
3	Agral 90		SO	0.200	% V/V	Post	A							
5	H 9492													
1	Check							0a	0a	0a	3.0	0.4	24.0	10.8
6	H 9553													
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	0a	0a	0a	3.1	0.5	26.1	11.9
2	Agral 90		SO	0.100	% V/V	Post	A							
6	H 9553													
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	0a	0a	0a	3.5	0.4	27.7	10.1
3	Agral 90		SO	0.200	% V/V	Post	A							
6	H 9553													
1	Check							0a	0a	0a	4.9	0.5	25.2	8.0
7	H 9909													
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	2b	2b	1b	3.8	0.5	36.1	9.6
2	Agral 90		SO	0.100	% V/V	Post	A							
7	H 9909													
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	4c	3c	1b	4.9	0.5	34.9	9.9
3	Agral 90		SO	0.200	% V/V	Post	A							
7	H 9909													
1	Check							0a	0a	0a	4.1	0.4	25.3	7.3
8	N 1069													
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	3b	3b	1b	4.0	0.4	33.5	7.3
2	Agral 90		SO	0.100	% V/V	Post	A							
8	N 1069													
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	6c	6c	4c	3.9	0.4	36.9	7.8
3	Agral 90		SO	0.200	% V/V	Post	A							
8	N 1069													
1	Check							0a	0a	0a	3.8	0.3	23.9	6.9
9	N 1082													
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	0a	0a	0a	3.5	0.3	33.6	8.1
2	Agral 90		SO	0.100	% V/V	Post	A							
9	N 1082													
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	0a	0a	0a	3.7	0.3	31.3	10.5
3	Agral 90		SO	0.200	% V/V	Post	A							
9	N 1082													
1	Check							0a	0a	0a	4.3	0.5	25.8	10.1
10	N 1480E													
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	0a	0a	0a	4.0	0.5	30.5	9.6
2	Agral 90		SO	0.100	% V/V	Post	A							
10	N 1480E													
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	1b	1b	0a	4.1	0.4	30.0	8.1
3	Agral 90		SO	0.200	% V/V	Post	A							
10	N 1480E													
1	Check							0a	0a	0a	4.0	0.5	24.5	11.5
11	N 1480L													
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	0a	0a	0a	3.9	0.5	33.1	10.6
2	Agral 90		SO	0.100	% V/V	Post	A							
11	N 1480L													
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	0a	0a	0a	3.7	0.4	20.9	10.2
3	Agral 90		SO	0.200	% V/V	Post	A							
11	N 1480L													
1	Check							0a	0a	0a	2.8	0.4	26.9	9.6
12	N 1522													
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	0a	0a	0a	3.9	0.4	33.9	9.1
2	Agral 90		SO	0.100	% V/V	Post	A							
12	N 1522													
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	0a	0a	0a	2.9	0.4	18.1	9.2
3	Agral 90		SO	0.200	% V/V	Post	A							
12	N 1522													
1	Check							0a	0a	0a	4.0	0.5	44.5	14.4
13	PETO 696													
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	0a	0a	0a	6.3	0.6	45.4	13.0
2	Agral 90		SO	0.100	% V/V	Post	A							
13	PETO 696													
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	0a	0a	0a	5.5	0.6	38.1	16.0
3	Agral 90		SO	0.200	% V/V	Post	A							
13	PETO 696													
						LSD=		0	0	0	NS	NS	NS	NS
						CV=		80	86	71	26	21	41	27

THIFENSULFURON-METHYL TOLERANCE EVALUATION IN PROCESSING TOMATOES

KRISTEN MCNAUGHTON, DARREN ROBINSON

Experiment ID: TOO1C1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	12	13
	Crop Code							LYPES	LYPES
	Part Rated							ROT	RED+GR
	Rating Data Type							YIELD	YIELD
	Rating Unit							T/HA	T/HA
	Rating Date								
	Crop Stage							WEEDFREE	WEEDFREE
	TABLE OF R MEANS								
	Replicate 1							4.0	39.5
	Replicate 2							2.6	38.3
	Replicate 3							3.5	41.5
	Replicate 4							3.7	33.6
	TABLE OF A MEANS								
1	Check							3.9	35.7
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	3.1	41.2
2	Agral 90		SO	0.100	% V/V	Post	A		
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	3.3	37.7
3	Agral 90		SO	0.200	% V/V	Post	A		
							LSD=	NS	NS
							CV=	54	68
	TABLE OF B MEANS								
1	CC 337							3.5	34.7
2	H 9144							2.5	40.7
3	H 9314							2.7	34.4
4	H 9478							3.5	30.4
5	H 9492							3.0	33.4
6	H 9553							3.2	36.8
7	H 9909							3.1	41.3
8	N 1069							2.1	39.4
9	N 1082							2.5	38.1
10	N 1480E							5.2	38.0
11	N 1480L							4.2	36.9
12	N 1522							5.4	35.6
13	PETO 696							3.9	57.1
	TABLE OF AB MEANS								
1	Check							3.9	31.9
1	CC 337								
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	3.2	38.7
2	Agral 90		SO	0.100	% V/V	Post	A		
1	CC 337								
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	3.3	33.6
3	Agral 90		SO	0.200	% V/V	Post	A		
1	CC 337								
1	Check							3.6	37.5
2	H 9144								
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	2.1	47.2
2	Agral 90		SO	0.100	% V/V	Post	A		
2	H 9144								
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	2.0	37.3
3	Agral 90		SO	0.200	% V/V	Post	A		
2	H 9144								
1	Check							3.0	33.4
3	H 9314								
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	2.3	35.7
2	Agral 90		SO	0.100	% V/V	Post	A		
3	H 9314								
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	2.8	34.0
3	Agral 90		SO	0.200	% V/V	Post	A		
3	H 9314								
1	Check							4.0	30.6
4	H 9478								
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	2.9	31.0
2	Agral 90		SO	0.100	% V/V	Post	A		
4	H 9478								
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	3.5	29.7
3	Agral 90		SO	0.200	% V/V	Post	A		
4	H 9478								
1	Check							2.0	31.8
5	H 9492								
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	2.8	31.9
2	Agral 90		SO	0.100	% V/V	Post	A		
5	H 9492								
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	4.1	36.3
3	Agral 90		SO	0.200	% V/V	Post	A		
5	H 9492								

THIFENSULFURON-METHYL TOLERANCE EVALUATION IN PROCESSING TOMATOES

KRISTEN MCNAUGHTON, DARREN ROBINSON

Experiment ID: TOO1C1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code		
	Crop Code							LYPES	LYPES
	Part Rated							ROT	RED+GR
	Rating Data Type							YIELD	YIELD
	Rating Unit							T/HA	T/HA
	Rating Date								
	Crop Stage							WEEDFREE	WEEDFREE
	Crop Stage Scale								
1	Check							3.5	34.8
6	H 9553								
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	3.3	37.9
2	Agral 90		SO	0.100	% V/V	Post	A		
6	H 9553								
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	2.6	37.8
3	Agral 90		SO	0.200	% V/V	Post	A		
6	H 9553								
1	Check							3.4	33.2
7	H 9909								
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	4.1	45.8
2	Agral 90		SO	0.100	% V/V	Post	A		
7	H 9909								
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	2.0	44.8
3	Agral 90		SO	0.200	% V/V	Post	A		
7	H 9909								
1	Check							3.0	32.6
8	N 1069								
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	2.2	40.7
2	Agral 90		SO	0.100	% V/V	Post	A		
8	N 1069								
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	1.1	44.7
3	Agral 90		SO	0.200	% V/V	Post	A		
8	N 1069								
1	Check							2.9	30.8
9	N 1082								
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	2.4	41.8
2	Agral 90		SO	0.100	% V/V	Post	A		
9	N 1082								
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	2.3	41.8
3	Agral 90		SO	0.200	% V/V	Post	A		
9	N 1082								
1	Check							7.1	35.9
10	N 1480E								
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	4.5	40.1
2	Agral 90		SO	0.100	% V/V	Post	A		
10	N 1480E								
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	3.9	38.1
3	Agral 90		SO	0.200	% V/V	Post	A		
10	N 1480E								
1	Check							4.9	36.0
11	N 1480L								
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	3.2	43.7
2	Agral 90		SO	0.100	% V/V	Post	A		
11	N 1480L								
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	4.5	31.1
3	Agral 90		SO	0.200	% V/V	Post	A		
11	N 1480L								
1	Check							5.4	36.6
12	N 1522								
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	4.3	43.0
2	Agral 90		SO	0.100	% V/V	Post	A		
12	N 1522								
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	6.5	27.3
3	Agral 90		SO	0.200	% V/V	Post	A		
12	N 1522								
1	Check							4.4	58.9
13	PETO 696								
2	Thifensulfuron-methyl	75	DF	6	G A/HA	Post	A	2.9	58.5
2	Agral 90		SO	0.100	% V/V	Post	A		
13	PETO 696								
3	Thifensulfuron-methyl	75	DF	12	G A/HA	Post	A	4.4	54.1
3	Agral 90		SO	0.200	% V/V	Post	A		
13	PETO 696								
							LSD=	NS	NS
							CV=	53	30

Trial Comments:

Conclusions: This trial was maintained weed free to examine the effect of thifensulfuron-methyl on visual injury and yield of 13 processing tomato varieties: CC337, H9144, H9314, H9478, H9492, H9553, H9909, N1069, N1082, N1480E, N1480L, N1522, and PETO696.

There was no commercially significant visual injury, and no reduction in yield in any of the 13 varieties tested. H9909 and N1069 did show some visual injury, primarily leaf curling, but the plants outgrew this injury by the end of the growing season. Mid-season dry weights of five plants per treatment were not less at either rate of application compared to the untreated check. Application of thifensulfuron-methyl did not result in yield reductions for any of the varieties tested.

POSTEMERGENCE WEED CONTROL IN TOMATOES WITH RIMSULFURON AND THIFENSULFURON-METHYL TANKMIXES

KRISTEN MCNAUGHTON, DARREN ROBINSON **Experiment ID: TO01C2**

CROP: LYPES (H9478). Planted: May-31-01, 29500 PL/HA, 5 CM Deep, 150 CM Row Width. Planting Method: TRANSPLANT. Emerged On: May-31-01.
Expt. Design: RANDOMIZED COMPLETE BLOCK. Reps: 4. Plot Size: 1.5 M x 40 M. Expt. Location: RC- Range E7.

Site Description: Soil Texture: SANDY LOAM. %OM: 3.76 %Sand: 64.6 %Silt: 17.2 %Clay: 18.2 pH: 6.3

APPLICATION DESCRIPTION

Application:	A	B	C	D
Date	Jun-14-01	Jun-28-01	Jul-11-01	Jul-26-01
Time of Day:	9:50 PM	6:25 AM	8:45 PM	7:25 AM
Method	CO2 SPRAY	CO2 SPRAY	CO2 SPRAY	CO2 SPRAY
Timing	POST A	POST B	POST C	POST D
Placement	FOLIAR	FOLIAR	FOLIAR	FOLIAR
Air Temp.	20.8 C	19.4 C	20 C	18 C
% Humidity	85	90	62	85
Wind Speed	2 KPH	0 KPH	0 KPH	4 KPH
Dew Present	Y	Y	N	Y
Soil Moist.	DRY	DRY	DRY	MOIST
Cloud Cover	0%	30%	50%	30%
Equipment	CO2 SPRAY	CO2 SPRAY	CO2 SPRAY	CO2 SPRAY
Pressure	207 kPa	207 kPa	207 kPa	207 kPa
Nozzle Type	FLAT FAN	FLAT FAN	FLAT FAN	FLAT FAN
Nozzle Size	8002 XR	8002 XR	8002 XR	8002 XR
Noz.Spacing	50 CM	50 CM	50 CM	50 CM
Boom Length	1.5 M	1.5 M	1.5 M	1.5 M
Boom Height	50 CM	50 CM	50 CM	50 CM
Carrier	WATER	WATER	WATER	WATER
Appl.Volume	200 L/HA	200 L/HA	200 L/HA	200 L/HA
Propellant	CO2	CO2	CO2	CO2

STAGE AT APPLICATION

Application:	A	B	C	D
Crop 1 LYPES				
Height	16 CM	26 CM	34 CM	41 CM
Weed 1 ABUTH COT.		1 LF	4 LF	7 LF
Stg.Scale	0.3 CM	1.8 CM	21 CM	31.3 CM
Density	8 SQ.M	3.5 SQ.M	2 SQ.M	2.5 SQ.M
Weed 2 AMARE		6 LF	8 LF	12 LF
Stg.Scale:		6.3 CM	16 CM	30 CM
Density :		3 SQ.M	1.5 SQ.M	0.5 SQ.M
Weed 3 CHEAL		5 LF	12 LF	19 LF
Stg.Scale:		6.8 CM	25 CM	52.5 CM
Density :		7.5 SQ.M	5 SQ.M	4 SQ.M
Weed 4 SOLPT		6 LF	8 LF	10 LF
Stg.Scale:		10 CM	17 CM	25 CM
Density :		0.5 SQ.M	1.5 SQ.M	1.5 SQ.M

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code															
Weed Code																						
Crop Code								LYPES		LYPES		LYPES		LYPES		LYPES		LYPES		LYPES		LYPES
Part Rated														RED		GREEN		ROT		RED+GR		RED
Rating Data Type								INJURY		INJURY		INJURY		YIELD		YIELD		YIELD		YIELD		YIELD
Rating Unit								%		%		%		T/HA		T/HA		T/HA		T/HA		T/HA
Rating Date								Jul-5-01		Jul-11-01		Jul-27-01		Aug-30-01		Aug-30-01		Aug-30-01		Aug-30-01		Aug-30-01
Crop Stage								10-13 LF		11-14 LF		16-18 LF		WEEDY		WEEDY		WEEDY		WEEDY		WEEDFREE
Crop Stage Scale								25-33 CM		30-36 CM		32-45 CM										
Weed Stage																						
Weed Density, Unit																						
Trt-Eval Interval								7 DAT		14 DAT		28 DAT										
1	Untreated Check							0	a	0	a	0	b	24.7	a	8.0	a	5.2	a	32.7	a	22.7	b
2	rimsulfuron	25	DF	15	G A/HA	post	B	0	a	0	a	0	b									28.0	ab
	Agral 90		SO	0.200	% V/V	post	B																
3	thifensulfuron-methyl	75	DF	6	G A/HA	post	B	0	a	0	a	0	b									28.0	ab
	Agral 90		SO	0.200	% V/V	post	B																
4	metribuzin	75	WG	150	G A/HA	post	B	0	a	0	a	1	a									27.5	ab
5	rimsulfuron	25	DF	15	G A/HA	post	B	0	a	0	a	0	b									31.5	a
	thifensulfuron-methyl	75	DF	6	G A/HA	post	B																
	Agral 90		SO	0.200	% V/V	post	B																
6	rimsulfuron	25	DF	15	G A/HA	post	B	0	a	0	a	0	b	28.3	a	9.1	a	3.2	a	37.4	a	25.7	ab
	metribuzin	75	WG	150	G A/HA	post	B																
	Agral 90		SO	0.200	% V/V	post	B																
7	thifensulfuron-methyl	75	DF	6	G A/HA	post	B	0	a	0	a	0	b	28.1	a	8.4	a	3.3	a	36.4	a	25.0	ab
	metribuzin	75	WG	150	G A/HA	post	B																
	Agral 90		SO	0.200	% V/V	post	B																
8	metribuzin	75	WG	150	G A/HA	post	A	0	a	0	a	0	b									20.6	b
	metribuzin	75	WG	150	G A/HA	post	B																
	metribuzin	75	WG	150	G A/HA	post	C																
	metribuzin	75	WG	150	G A/HA	post	D																
LSD (P=.05)								0.3		0.5		0.3		10.35		3.45		2.60		11.63		8.07	
Standard Deviation								0.2		0.3		0.2		5.98		1.99		1.50		6.72		5.49	
CV								565.69		261.86		326.6		22.14		23.43		38.78		18.92		21.01	

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

POSTEMERGENCE WEED CONTROL IN TOMATOES WITH RIMSULFURON AND THIFENSULFURON-METHYL TANKMIXES

KRISTEN MCNAUGHTON, DARREN ROBINSON

Experiment ID: TO01C2

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code						
Weed Code													
Crop Code								LYPES		LYPES		LYPES	
Part Rated								GREEN		ROT		RED+GR	
Rating Data Type								YIELD		YIELD		YIELD	
Rating Unit								T/HA		T/HA		T/HA	
Rating Date								Aug-30-01		Aug-30-01		Aug-30-01	
Crop Stage								WEEDFREE		WEEDFREE		WEEDFREE	
Crop Stage Scale													
Weed Stage													
Weed Density, Unit													
Trt-Eval Interval													
1	Untreated Check							10.2	ab	5.4	a	32.8	ab
2	rimsulfuron	25	DF	15	G A/HA	post	B	10.3	ab	3.8	ab	38.3	ab
	Agral 90		SO	0.200	% V/V	post	B						
3	thifensulfuron-methyl	75	DF	6	G A/HA	post	B	8.7	b	3.2	b	36.7	ab
	Agral 90		SO	0.200	% V/V	post	B						
4	metribuzin	75	WG	150	G A/HA	post	B	11.6	a	2.9	b	39.1	a
5	rimsulfuron	25	DF	15	G A/HA	post	B	8.7	b	3.2	b	40.2	a
	thifensulfuron-methyl	75	DF	6	G A/HA	post	B						
	Agral 90		SO	0.200	% V/V	post	B						
6	rimsulfuron	25	DF	15	G A/HA	post	B	11.6	a	3.2	b	37.2	ab
	metribuzin	75	WG	150	G A/HA	post	B						
	Agral 90		SO	0.200	% V/V	post	B						
7	thifensulfuron-methyl	75	DF	6	G A/HA	post	B	10.0	ab	2.8	b	35.0	ab
	metribuzin	75	WG	150	G A/HA	post	B						
	Agral 90		SO	0.200	% V/V	post	B						
8	metribuzin	75	WG	150	G A/HA	post	A	10.2	ab	4.5	ab	30.8	b
	metribuzin	75	WG	150	G A/HA	post	B						
	metribuzin	75	WG	150	G A/HA	post	C						
	metribuzin	75	WG	150	G A/HA	post	D						
LSD (P=.05)								2.01		1.82		8.01	
Standard Deviation								1.37		1.24		5.45	
CV								13.45		34.26		15.02	

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

Trial Comments

Conclusions: This trial was maintained weed free to test the effect of postemergence tankmixes of rimsulfuron and thifensulfuron following a pre-plant incorporated treatment of s-metolachlor and metribuzin on visual injury and yield of processing tomatoes.

Rimsulfuron, thifensulfuron-methyl, metribuzin, rimsulfuron + thifensulfuron-methyl, rimsulfuron + metribuzin, thifensulfuron-methyl + metribuzin, and metribuzin (4 sequential POST treatments) did not cause any visual injury to or yield reductions of processing tomatoes.