

University of Georgia

Tomato and weed response to be used in V-10142.

Trial ID: Veg8-05
Location: Ponder 5161

Study Dir.: Stanley Culpepper
Investigator: Stanley Culpepper

Reps: 4 Plots: 6 by 25 feet
Spray vol: 14.8 gal/ac Mix size: 1 liters (min .77168)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Grow Stg	Appl Code	Amt Product to Measure	Plot No. By Rep			
									1	2	3	4
1	Non-treated								101	210	306	404
2	V-10142	3.3	FL	0.25	lb ai/a	PRET	A	5.118 ml/mx	102	201	303	402
3	V-10142	3.3	FL	0.5	lb ai/a	PRET	A	10.24 ml/mx	103	206	305	407
4	Dual Magnum Sandea	7.62	L	12	oz/a	PRET	A	6.334 ml/mx	104	202	310	409
		75	DG	0.75	oz/a	PRET	A	0.3795 g/mx				
5	V-10142 NIS	3.3	FL	0.2	lb ai/a	POST	B	4.095 ml/mx	105	207	304	401
			L	0.25	% v/v	POST	B	2.5 ml/mx				
6	V-10142 NIS	3.3	FL	0.3	lb ai/a	POST	B	6.142 ml/mx	106	209	302	403
			L	0.25	% v/v	POST	B	2.5 ml/mx				
7	Sandea NIS	75	DF	0.75	oz/a	POST	B	0.3795 g/mx	107	203	307	410
			L	0.25	% v/v	POST	B	2.5 ml/mx				
8	V-10142	3.3	FL	0.25	lb ai/a	PRET	A	5.118 ml/mx	108	204	308	406
	V-10142	3.3	FL	0.2	lb ai/a	POST	B	4.095 ml/mx				
	NIS		L	0.25	% v/v	POST	B	2.5 ml/mx				
9	V-10142	3.3	FL	0.25	lb ai/a	PRET	A	5.118 ml/mx	109	205	301	408
	V-10142	3.3	FL	0.3	lb ai/a	POST	B	6.142 ml/mx				
	NIS		L	0.25	% v/v	POST	B	2.5 ml/mx				
10	V-10142	3.3	FL	0.5	lb ai/a	PRET	A	10.24 ml/mx	110	208	309	405
	V-10142	3.3	FL	0.3	lb ai/a	POST	B	6.142 ml/mx				
	NIS		L	0.25	% v/v	POST	B	2.5 ml/mx				

Sort Order: Treatment

Product quantities required for listed treatments and applications in one trial:

Amount*	Unit	Treatment Name	Lot Code
78.053	ml	V-10142 3.3 FL	
7.918	ml	Dual Magnum 7.62 L	
0.474	g	Sandea 75 DG	
18.748	ml	NIS L	
0.474	g	Sandea 75 DF	

* 'Per area' calculations based on spray volume= 14.8 gal/ac, mix size= 1 liters (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 14.8 gal/ac, mix size= 1 liters.

Trial Comments

OBJECTIVE: Evaluate tomato and weed response to V-10142.

Crop Response:

1. Herbicide treatments caused little to no injury throughout the season.
2. Tomato heights were not impacted by treatments (heights taken on 10 plants per plot 3 different times). Additionally CV's were less than 8 for each height evaluation.
3. As expected, yield was variable. The number and weight of Jumbo (extra-large), medium, small, extra small fruit and total fruit were not impacted by treatments; however, differences in large fruit were noted. The number and weight of large fruit produced were less than the non-treated when V-10142 at 0.5 lb ai was applied under mulch (trt 2 and 10) or when Sandea was applied otop of tomato (slight impact on maturity occasionally noted with this treatment).

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Nutsedge Response:

1. Nutsedge was sporadic with thin populations.
2. Control by PRE treatments was similar providing good late-season control.
3. Sandea was more effective than V-10142 when applied POST.
4. PRE followed by POST systems were generally more effective than V-10142 applied alone.

GENERAL COMMENTS:

1. Telone II at 12 G/A was applied with the Yetter rig followed by Vapam at 50 G/A. Three weeks after fumigating, herbicides were applied under mulch without the mulch laying process disturbing the herbicide layer.

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Trial ID: Veg8-05

Study Dir.: Stanley Culpepper

Location: Ponder 5161

Investigator: Stanley Culpepper

Weed Code		tomato	tomato	tomato	tomato	tomato	CYPZZ	plant 1	plant 2	
Crop Code		injury	injury	injury	injury	injury	tomato	tomato	tomato	
Rating Data Type		percent	percent	percent	percent	percent	control	ht	ht	
Rating Unit		percent	percent	percent	percent	percent	percent	cm	cm	
Rating Date		Mar-23-05	Apr-05-05	Apr-20-05	May-16-05	May-23-05	May-16-05	Mar-30-05	Mar-30-05	
Trt-Eval Interval		21 DA-A	34 DA-A	49 DA-A	75 DA-A	82 DA-A	75 DA-A	28 DA-A	28 DA-A	
ARM Action Codes										
# Subsamples, Dec.										
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	
		Unit								
			1	2	3	4	5	6	7	
			8							
1	Non-treated		0	0	0	0	0	0	11	12
2	V-10142	0.25 lb ai/a	0	4	0	0	0	84	10	11
3	V-10142	0.5 lb ai/a	0	5	2	0	0	85	11	10
4	Dual Magnum Sandea	12 oz/a 0.75 oz/a	0	0	0	4	0	87	10	11
5	V-10142 NIS	0.2 lb ai/a 0.25 % v/v	0	0	0	3	0	75	10	11
6	V-10142 NIS	0.3 lb ai/a 0.25 % v/v	0	0	0	0	0	76	10	10
7	Sandea NIS	0.75 oz/a 0.25 % v/v	0	0	3	0	0	93	10	10
8	V-10142 V-10142 NIS	0.25 lb ai/a 0.2 lb ai/a 0.25 % v/v	0	3	3	0	0	93	10	11
9	V-10142 V-10142 NIS	0.25 lb ai/a 0.3 lb ai/a 0.25 % v/v	0	0	4	0	2	91	9	11
10	V-10142 V-10142 NIS	0.5 lb ai/a 0.3 lb ai/a 0.25 % v/v	0	5	5	4	0	99	10	10
LSD (P=.05)			0.0	5.9	5.5	5.2	1.6	15.6	2.0	2.3
Standard Deviation			0.0	4.1	3.8	3.6	1.1	10.8	1.4	1.6
CV			0.0	251.25	235.67	335.15	632.46	13.77	13.72	15.21

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

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Weed Code	plant 3 tomato	plant 4 tomato	plant 5 tomato	plant 6 tomato	plant 7 tomato	plant 8 tomato	plant 9 tomato	plant 10 tomato			
Crop Code	ht	ht	ht	ht	ht	ht	ht	ht			
Rating Data Type	cm	cm	cm	cm	cm	cm	cm	cm			
Rating Unit	Mar-30-05	Mar-30-05	Mar-30-05	Mar-30-05	Mar-30-05	Mar-30-05	Mar-30-05	Mar-30-05			
Rating Date	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A			
Trt-Eval Interval											
ARM Action Codes											
# Subsamples, Dec.											
Trt No.	Treatment Name	Rate	Rate Unit	9	10	11	12	13	14	15	16
1	Non-treated			12	11	11	11	11	11	10	10
2	V-10142	0.25 lb ai/a		10	11	11	11	10	11	11	11
3	V-10142	0.5 lb ai/a		8	9	10	10	10	11	11	11
4	Dual Magnum Sanda	12 oz/a 0.75 oz/a		11	11	10	11	11	10	11	10
5	V-10142 NIS	0.2 lb ai/a 0.25 % v/v		10	12	11	10	10	11	12	12
6	V-10142 NIS	0.3 lb ai/a 0.25 % v/v		11	11	10	10	10	11	10	10
7	Sanda NIS	0.75 oz/a 0.25 % v/v		11	12	11	11	12	12	11	11
8	V-10142 V-10142 NIS	0.25 lb ai/a 0.2 lb ai/a 0.25 % v/v		10	12	11	10	10	11	10	11
9	V-10142 V-10142 NIS	0.25 lb ai/a 0.3 lb ai/a 0.25 % v/v		9	10	11	11	9	10	10	11
10	V-10142 V-10142 NIS	0.5 lb ai/a 0.3 lb ai/a 0.25 % v/v		11	10	11	11	11	10	10	9
LSD (P=.05)				3.1	2.2	2.6	2.2	2.1	2.5	1.8	1.7
Standard Deviation				2.2	1.5	1.8	1.5	1.5	1.7	1.2	1.2
CV				21.2	13.93	17.22	14.43	14.14	15.99	11.88	11.06

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

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Weed Code	Avg10pla	plant 1	plant 2	plant 3	plant 4	plant 5	plant 6	plant 7			
Crop Code	tomato	tomato	tomato	tomato	tomato	tomato	tomato	tomato			
Rating Data Type	ht	ht	ht	ht	ht	ht	ht	ht			
Rating Unit	cm	cm	cm	cm	cm	cm	cm	cm			
Rating Date	Mar-30-05	Apr-18-05	Apr-18-05	Apr-18-05	Apr-18-05	Apr-18-05	Apr-18-05	Apr-18-05			
Trt-Eval Interval	28 DA-A	47 DA-A	47 DA-A	47 DA-A	47 DA-A	47 DA-A	47 DA-A	47 DA-A			
ARM Action Codes	T1										
# Subsamples, Dec.											
Trt No.	Treatment Name	Rate	Unit	17	18	19	20	21	22	23	24
1	Non-treated			11	25	29	28	30	30	31	29
2	V-10142	0.25 lb ai/a		11	33	30	30	31	32	32	30
3	V-10142	0.5 lb ai/a		10	30	30	26	31	31	32	25
4	Dual Magnum Sandea	12 oz/a 0.75 oz/a		11	29	30	27	28	27	29	30
5	V-10142 NIS	0.2 lb ai/a 0.25 % v/v		11	32	28	31	29	27	29	30
6	V-10142 NIS	0.3 lb ai/a 0.25 % v/v		10	32	31	30	33	28	32	31
7	Sandea NIS	0.75 oz/a 0.25 % v/v		11	32	32	28	32	32	31	30
8	V-10142 V-10142 NIS	0.25 lb ai/a 0.2 lb ai/a 0.25 % v/v		11	33	31	33	32	33	32	29
9	V-10142 V-10142 NIS	0.25 lb ai/a 0.3 lb ai/a 0.25 % v/v		10	31	33	30	32	31	28	29
10	V-10142 V-10142 NIS	0.5 lb ai/a 0.3 lb ai/a 0.25 % v/v		10	30	27	31	29	29	30	28
LSD (P=.05)				1.1	7.5	4.1	5.7	4.0	5.5	6.0	6.2
Standard Deviation				0.7	5.2	2.8	3.9	2.8	3.8	4.1	4.3
CV				7.15	17.0	9.34	13.49	9.1	12.76	13.57	14.76

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

Column 17: T1 = @AVG([C7].[C16])

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Weed Code	plant 8 tomato	plant 9 tomato	plant 10 tomato	Avg10pla tomato	plant 1 tomato	plant 2 tomato	plant 3 tomato	plant 4 tomato
Crop Code	ht	ht	ht	ht	ht	ht	ht	ht
Rating Data Type	cm	cm	cm	cm	cm	cm	cm	cm
Rating Unit	Apr-18-05	Apr-18-05	Apr-18-05	Apr-18-05	May-11-05	May-11-05	May-11-05	May-11-05
Rating Date	47 DA-A	47 DA-A	47 DA-A	47 DA-A	70 DA-A	70 DA-A	70 DA-A	70 DA-A
Trt-Eval Interval								
ARM Action Codes				T2				
# Subsamples, Dec.				1				
Trt Treatment								
No. Name	25	26	27	28	29	30	31	32
Rate								
Rate Unit								
1 Non-treated	29	27	30	28.7	56	54	54	56
2 V-10142 0.25 lb ai/a	29	27	29	30.1	54	52	57	57
3 V-10142 0.5 lb ai/a	29	27	28	28.8	52	54	54	50
4 Dual Magnum 12 oz/a Sanda 0.75 oz/a	32	23	30	28.4	56	49	50	49
5 V-10142 0.2 lb ai/a NIS 0.25 % v/v	29	30	27	29.0	54	56	55	57
6 V-10142 0.3 lb ai/a NIS 0.25 % v/v	31	29	31	30.6	59	60	58	56
7 Sandea 0.75 oz/a NIS 0.25 % v/v	29	32	30	30.7	54	54	54	56
8 V-10142 0.25 lb ai/a V-10142 0.2 lb ai/a NIS 0.25 % v/v	31	28	31	31.3	57	56	56	55
9 V-10142 0.25 lb ai/a V-10142 0.3 lb ai/a NIS 0.25 % v/v	29	32	30	30.3	52	55	55	58
10 V-10142 0.5 lb ai/a V-10142 0.3 lb ai/a NIS 0.25 % v/v	28	27	31	28.8	53	53	54	53
LSD (P=.05)	5.2	8.1	4.7	3.05	7.4	8.2	6.8	7.3
Standard Deviation	3.6	5.6	3.3	2.10	5.1	5.6	4.7	5.0
CV	12.09	20.02	11.05	7.08	9.29	10.45	8.52	9.16

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

Column 28: T2 = @AVG([C18],[C27])

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Weed Code	plant 5 tomato	plant 6 tomato	plant 7 tomato	plant 8 tomato	plant 9 tomato	plant 10 tomato	Avg10pla tomato	Yield tomato
Crop Code	ht	ht	ht	ht	ht	ht	ht	jumbo
Rating Data Type	cm	cm	cm	cm	cm	cm	cm	#
Rating Unit	May-11-05	May-11-05	May-11-05	May-11-05	May-11-05	May-11-05	May-11-05	Jun-09-05
Rating Date	70 DA-A	70 DA-A	70 DA-A	70 DA-A	70 DA-A	70 DA-A	70 DA-A	99 DA-A
Trt-Eval Interval							T3	
ARM Action Codes							1	
# Subsamples, Dec.								
Trt Treatment								
Rate								
No. Name Rate Unit	33	34	35	36	37	38	39	40
1 Non-treated	58	60	58	56	52	55	53.3	1
2 V-10142 0.25 lb ai/a	54	56	55	54	55	52	52.2	2
3 V-10142 0.5 lb ai/a	56	54	54	54	57	56	51.2	2
4 Dual Magnum 12 oz/a Sanda 0.75 oz/a	51	53	51	44	53	53	48.3	2
5 V-10142 0.2 lb ai/a NIS 0.25 % v/v	58	51	56	56	49	52	52.0	3
6 V-10142 0.3 lb ai/a NIS 0.25 % v/v	56	56	55	54	52	57	53.6	2
7 Sandea 0.75 oz/a NIS 0.25 % v/v	56	55	53	56	48	55	51.7	2
8 V-10142 0.25 lb ai/a V-10142 0.2 lb ai/a NIS 0.25 % v/v	56	53	56	53	57	56	52.8	2
9 V-10142 0.25 lb ai/a V-10142 0.3 lb ai/a NIS 0.25 % v/v	55	51	48	48	52	54	50.4	3
10 V-10142 0.5 lb ai/a V-10142 0.3 lb ai/a NIS 0.25 % v/v	53	54	48	52	46	46	49.3	1
LSD (P=.05)	7.9	7.8	7.4	10.0	10.6	7.0	4.64	2.4
Standard Deviation	5.4	5.3	5.1	6.9	7.3	4.9	3.20	1.7
CV	9.84	9.87	9.49	13.12	14.05	9.09	6.22	91.55

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

Column 39: T3 = @AVG([28],[37])

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Weed Code		Yield	Yield	Yield	Yield	Yield	Yield	Yield	
Crop Code		tomato	tomato	tomato	tomato	tomato	tomato	tomato	
Rating Data Type		jumbo	large	large	medium	medium	small	small	
Rating Unit		wt/lb	#	wt/lb	#	wt/lb	#	ex small	
Rating Date		Jun-09-05	Jun-09-05	Jun-09-05	Jun-09-05	Jun-09-05	Jun-09-05	Jun-09-05	
Trt-Eval Interval		99 DA-A	99 DA-A	99 DA-A	99 DA-A	99 DA-A	99 DA-A	99 DA-A	
ARM Action Codes									
# Subsamples, Dec.									
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	Rate	Rate	Rate	
		Unit	Unit	Unit	Unit	Unit	Unit	Unit	
1	Non-treated								
2	V-10142	0.25 lb ai/a							
3	V-10142	0.5 lb ai/a							
4	Dual Magnum Sandea	12 oz/a 0.75 oz/a							
5	V-10142 NIS	0.2 lb ai/a 0.25 % v/v							
6	V-10142 NIS	0.3 lb ai/a 0.25 % v/v							
7	Sandea NIS	0.75 oz/a 0.25 % v/v							
8	V-10142 V-10142 NIS	0.25 lb ai/a 0.2 lb ai/a 0.25 % v/v							
9	V-10142 V-10142 NIS	0.25 lb ai/a 0.3 lb ai/a 0.25 % v/v							
10	V-10142 V-10142 NIS	0.5 lb ai/a 0.3 lb ai/a 0.25 % v/v							
LSD (P=.05)		1.1	2.6	0.9	7.0	1.8	5.4	1.2	25.5
Standard Deviation		0.8	1.8	0.6	4.8	1.2	3.7	0.8	17.6
CV		94.26	30.79	31.36	38.39	40.74	35.81	42.56	20.23

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

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Weed Code		Yield	Tot. Yiel	Tot. Yiel
Crop Code		tomato	tomato	tomato
Rating Data Type		ex small	all	all
Rating Unit		wt/lb	#	#
Rating Date		Jun-09-05	Jun-09-05	Jun-09-05
Trt-Eval Interval		99 DA-A		
ARM Action Codes			T4	T5
# Subsamples, Dec.			1	1
Trt No.	Treatment Name	Rate		
		Rate Unit		
			49	50
				51
1	Non-treated		8	113.5
2	V-10142	0.25 lb ai/a	9	122.8
3	V-10142	0.5 lb ai/a	9	121.5
4	Dual Magnum	12 oz/a	8	114.3
	Sandea	0.75 oz/a		
5	V-10142	0.2 lb ai/a	8	118.8
	NIS	0.25 % v/v		
6	V-10142	0.3 lb ai/a	8	116.0
	NIS	0.25 % v/v		
7	Sandea	0.75 oz/a	8	128.8
	NIS	0.25 % v/v		
8	V-10142	0.25 lb ai/a	9	120.3
	V-10142	0.2 lb ai/a		
	NIS	0.25 % v/v		
9	V-10142	0.25 lb ai/a	8	114.5
	V-10142	0.3 lb ai/a		
	NIS	0.25 % v/v		
10	V-10142	0.5 lb ai/a	7	103.8
	V-10142	0.3 lb ai/a		
	NIS	0.25 % v/v		
LSD (P=.05)			2.3	22.62
Standard Deviation			1.6	15.59
CV			19.68	13.28
				12.45

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

Column 50: T4 = [40]+[42]+[44]+[46]+[48]

Column 51: T5 = [41]+[43]+[45]+[47]+[49]

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No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.							

SOIL DESCRIPTION

% Sand: 94 % OM: 1.1 Texture: sand
 % Silt: 2 pH: 6.6 Soil Name: Tifton sandy loam
 % Clay: 4 CEC: _____ Fert. Level: _____

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

MOISTURE CONDITIONS

No.	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

Overall Moisture Conditions: drip irrigation

Closest Weather Station: _____ Distance: _____ Unit: __

APPLICATION DESCRIPTION

	A	B
Application Date:	Mar-02-05	Apr-11-05
Time of Day:	3 pm	5 pm
Application Method:	broadcast	broadcast
Application Timing:	PRE	POST
Applic. Placement:	unde plas	overtop
Air Temp., Unit:	59 F	79 F
% Relative Humidity:	57	47
Wind Velocity, Unit:	2 mph	2 mph
Dew Presence (Y/N):	n	n
Water Hardness:		
Soil Temp., Unit:	57 F	82 F
Soil Moisture:	wet	wet
% Cloud Cover:	40	45

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	LYPES PRE	LYPES POST
Stage Scale:	not up	8 leaf
Height, Unit:	0 inch	12 inch

WEED STAGE AT EACH APPLICATION

	A	B
Weed 1 Code, Stage:	CYPZZ PRE	CYPZZ POST
Stage Scale:	not up	4-6 lf
Density, Unit:	0 ydsq	1 ydsq

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APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	supperbed	backpack
Operating Pressure:	29	22
Nozzle Type:	flat fan	flat fan
Nozzle Size:	11002	11002
Nozzle Spacing, Unit:	12 inch	18 inch
Nozzles/Row:	5	3
Band Width, Unit:		
Boom Length, Unit:		4.5 feet
Boom Height, Unit:	12 inch	15 inch
Ground Speed, Unit:	3 mph	3 mph
Incorporation Equip.:		
Hours to Incorp.:		
Incorp. Depth, Unit:		
Carrier:	water	water
Spray Volume, Unit:	22 GPA	14.8 GPA
Spray pH:		
Propellant:	CO2	CO2
Tank Mix (Y/N):	Y	Y

Trt No	Treatment Application Comment