

University of Georgia

Squash and tomato response to herbicides applied over plastic prior to transplanting.

Trial ID: Veg-39-03
 Location: Ponder farm

Study Dir.: Culpepper
 Investigator: Stanley Culpepper

GENERAL TRIAL INFORMATION

Study Director: Culpepper **Title:** ext. weed science
Affiliation: University of Georgia
Postal Code: 31794
Investigator: Stanley Culpepper **Title:** ext.weed science
Affiliation: University of Georgia
Postal Code: 31794

TRIAL LOCATION

City: TyTY **Trial Status:** completed
State/Prov.: Ga **Trial Reliability:** excellent
Postal Code: 31794 **Initiation Date:** Jul-15-03
Country: U.S.A.

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

CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	.		

Crop 1: LYPES TOMATO **Variety:** Amelia
Planting Date: Aug-06-03 **Planting Method:** transplant
Rate: 1 18" **Depth:** 1 in
Row Spacing: 6 feet **Spacing Within Row:** 18 inch **Seed Bed:** plastic
Soil Temperature: 95 F **Soil Moisture:** drip

Crop 2: CUUPE SQUASH, SUMMER **Variety:** Enterprise
Planting Date: Aug-06-03 **Planting Method:** transplant
Rate: 1 12" **Depth:** 1.5 in
Row Spacing: 6 feet **Spacing Within Row:** 12 inch **Seed Bed:** plastic
Soil Temperature: 95 F **Soil Moisture:** drip

SITE AND DESIGN

Plot Width, Unit: 6 FT **Plot Length, Unit:** 25 FT **Reps:** 4
Site Type: Research station
Tillage Type: Plasticulture **Study Design:** SPLIT-PLOT

SOIL DESCRIPTION

% Sand: 94 **% OM:** 1.3 **Texture:** sand
% Silt: 2 **pH:** 6.4 **Soil Name:** Tifton sandy loam
% Clay: 4

Overall Moisture Conditions: wet

APPLICATION DESCRIPTION

	A	B
Application Date:	Aug-04-03	Aug-06-03
Time of Day:	3:00pm	8:00am
Application Method:	broadcast	broadcast
Application Timing:	prior2was	afterwash
Applic. Placement:	on plasti	on plasti
Air Temp., Unit:	85 F	82 F
% Relative Humidity:	69	79
Wind Velocity, Unit:	2 mph	2 mph
Dew Presence (Y/N):	n	n
Soil Temp., Unit:	95 F	95 F
Soil Moisture:	wet	wet
% Cloud Cover:	100	100

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CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	LYPES before	LYPES before
Stage Scale:	transplan	transplan
Height, Unit:	0. .	0. .
Crop 2 Code, Stage:	CUUPE before	CUUPE before
Stage Scale:	transplan	transplan
Height, Unit:	0. .	0. .

WEED STAGE AT EACH APPLICATION

	A	B
	.	.
Stage Scale:	.	.
Density, Unit:	. .	.

APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	backpack	backpack
Operating Pressure:	22	22
Nozzle Type:	flat fan	flat fan
Nozzle Size:	11002	11002
Nozzle Spacing, Unit:	18 inch	18 inch
Boom Length, Unit:	4.5 feet	4.5 feet
Boom Height, Unit:	15 inch	15 inch
Ground Speed, Unit:	3 mph	3 mph
Carrier:	water	water
Spray Volume, Unit:	14.8 GPA	14.8 GPA
Propellant:	CO2	CO2
Tank Mix (Y/N):	Y	Y

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Squash and tomato response to herbicides applied over plastic prior to transplanting.

Trial ID: Veg-39-03

Study Dir.: Culpepper

Location: Ponder farm

Investigator: Stanley Culpepper

Weed Code	Crop Code	tomato injury percent	tomato injury percent	tomatoe injury percent	squash injury percent	squash injury percent	squash injury percent	squash measurement cm
Rating Data Type	Rating Unit	Aug-08-03	Aug-25-03	Sep-05-03	Aug-08-03	Aug-25-03	Sep-05-03	Aug-20-03
Rating Date	Trt-Eval Interval	4 DA-A	21 DA-A		4 DA-A	21 DA-A		16 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	2	3	4	5	6	7
1	Wash-off (0.5 inch) Valor	3 oz/a	0.0	0.0	0.0	0.0	0.0	12.8
2	Wash-off (0.5 inch) WeatherMax	21 oz/a	0.0	0.0	0.0	0.0	0.0	10.5
3	Wash-off (0.5 inch) Aim COC	1.5 oz/a 1 % v/v	0.0	5.0	2.0	0.0	5.0	12.3
4	Wash-off (0.5 inch) Gramoxone Max NIS	2 pt/a 0.25 % v/v	0.0	0.0	0.0	0.0	2.5	10.0
5	Wash-off (0.5 inch) Sanda NIS	1 oz/a 0.25 % v/v	0.0	5.0	5.8	0.0	48.3	42.5
6	Wash-off (0.5 inch) Non-treated		0.0	0.0	0.0	0.0	0.0	12.5
7	No wash off Valor	3 oz/a	96.3	100.0	62.5	95.0	100.0	70.0
8	No wash off WeatherMax	21 oz/a	28.2	37.5	31.3	25.0	25.3	10.0
9	No wash off Aim COC	1.5 oz/a 1 % v/v	11.5	6.3	11.3	2.5	7.5	1.3
10	No wash off Gramoxone Max NIS	2 pt/a 0.25 % v/v	25.0	65.0	57.5	76.3	86.3	55.0
11	No wash off Sanda NIS	1 oz/a 0.25 % v/v	17.5	23.8	24.3	18.0	87.5	86.3
12	No wash off Non-treated		0.0	0.0	0.0	0.0	0.0	0.0
	LSD (P=.05)		15.47	19.32	29.67	18.63	12.42	26.61
	Standard Deviation		10.71	13.38	20.55	12.90	8.60	18.43
	CV		72.03	66.2	126.79	71.42	28.49	83.45
	Bartlett's X2		9.214	9.712	19.057	13.302	11.015	27.493
	P(Bartlett's X2)		0.056	0.084	0.004*	0.01*	0.088	0.001*

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

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Weed Code		squash measurement cm	squash measurement cm	squash measurement cm	squash measurement cm	squash measurement cm	squash measurement cm		
Crop Code		Aug-20-03 16 DA-A	Aug-20-03 16 DA-A	Aug-20-03 16 DA-A	Aug-20-03 16 DA-A	Aug-20-03 16 DA-A	Aug-20-03 16 DA-A		
Rating Data Type									
Rating Unit									
Rating Date									
Trt-Eval Interval									
ARM Action Codes									
# Subsamples, Dec.									
Trt No.	Treatment Name	Rate	Unit	8	9	10	11	12	13
1	Wash-off (0.5 inch) Valor	3	oz/a	11.8	13.3	11.5	11.3	10.0	13.8
2	Wash-off (0.5 inch) WeatherMax	21	oz/a	10.0	11.0	11.0	11.3	11.5	12.5
3	Wash-off (0.5 inch) Aim COC	1.5	oz/a 1 % v/v	12.3	9.5	12.0	10.0	9.8	12.3
4	Wash-off (0.5 inch) Gramoxone Max NIS	2	pt/a 0.25 % v/v	10.5	10.8	10.8	9.0	11.0	10.0
5	Wash-off (0.5 inch) Sandea NIS	1	oz/a 0.25 % v/v	7.0	5.8	8.5	6.5	8.3	7.0
6	Wash-off (0.5 inch) Non-treated			11.3	11.5	10.3	11.5	10.3	9.3
7	No wash off Valor	3	oz/a	0.0	0.0	0.0	0.0	0.0	0.0
8	No wash off WeatherMax	21	oz/a	9.8	7.3	7.5	7.8	9.8	9.5
9	No wash off Aim COC	1.5	oz/a 1 % v/v	10.3	11.3	10.0	10.3	8.0	8.0
10	No wash off Gramoxone Max NIS	2	pt/a 0.25 % v/v	4.3	4.5	4.3	3.3	1.5	2.3
11	No wash off Sandea NIS	1	oz/a 0.25 % v/v	6.3	5.0	4.8	5.8	5.3	5.5
12	No wash off Non-treated			8.8	9.5	10.0	8.8	11.8	9.5
LSD (P=.05)				3.16	3.68	4.26	3.25	3.54	4.17
Standard Deviation				2.19	2.55	2.95	2.25	2.45	2.89
CV				25.73	30.8	35.23	28.36	30.33	34.81
Bartlett's X2				20.957	6.47	9.896	11.49	19.2	18.594
P(Bartlett's X2)				0.021*	0.774	0.45	0.321	0.038*	0.046*

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

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Weed Code				Avg10pla			
Crop Code		squash	squash	squash	squash	tomato	tomato
Rating Data Type		measurement	measurement	measurement	height	measurement	measurement
Rating Unit		cm	cm	cm	cm	cm	cm
Rating Date		Aug-20-03	Aug-20-03	Aug-20-03	Aug-20-03	Sep-04-03	Sep-04-03
Trt-Eval Interval		16 DA-A	16 DA-A	16 DA-A		31 DA-A	31 DA-A
ARM Action Codes					T1		
# Subsamples, Dec.					1		
Trt Treatment	Rate						
No. Name	Rate Unit	14	15	16	17	18	19
1 Wash-off (0.5 inch) Valor	3 oz/a	11.3	12.5	13.8	12.2	42.0	41.5
2 Wash-off (0.5 inch) WeatherMax	21 oz/a	9.5	11.0	15.3	11.4	24.3	30.0
3 Wash-off (0.5 inch) Aim COC	1.5 oz/a 1 % v/v	12.8	10.3	12.3	11.3	33.8	38.5
4 Wash-off (0.5 inch) Gramoxone Max NIS	2 pt/a 0.25 % v/v	10.8	10.0	9.8	10.3	41.3	36.0
5 Wash-off (0.5 inch) Sandea NIS	1 oz/a 0.25 % v/v	8.5	8.0	8.3	7.6	34.3	35.5
6 Wash-off (0.5 inch) Non-treated		10.0	10.8	10.3	10.8	34.8	35.5
7 No wash off Valor	3 oz/a	0.0	0.0	0.0	0.0	0.0	0.0
8 No wash off WeatherMax	21 oz/a	9.3	6.8	6.8	8.5	31.0	32.8
9 No wash off Aim COC	1.5 oz/a 1 % v/v	9.5	9.0	5.8	9.2	31.0	31.5
10 No wash off Gramoxone Max NIS	2 pt/a 0.25 % v/v	1.3	0.0	0.0	2.8	24.3	24.8
11 No wash off Sandea NIS	1 oz/a 0.25 % v/v	5.8	5.5	7.3	5.8	33.0	33.8
12 No wash off Non-treated		11.3	8.8	8.8	9.7	32.5	35.8
LSD (P=.05)		3.37	3.60	3.57	2.31	13.72	13.56
Standard Deviation		2.33	2.50	2.47	1.60	9.50	9.39
CV		28.05	32.38	30.3	19.3	31.5	30.01
Bartlett's X2		13.415	19.311	12.56	16.786	24.1	24.207
P(Bartlett's X2)		0.201	0.023*	0.184	0.079	0.007*	0.007*

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

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

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Weed Code						
Crop Code		tomato	tomato	tomato	tomato	tomato
Rating Data Type		measurement	measurement	measurement	measurement	measurement
Rating Unit		cm	cm	cm	cm	cm
Rating Date		Sep-04-03	Sep-04-03	Sep-04-03	Sep-04-03	Sep-04-03
Trt-Eval Interval		31 DA-A	31 DA-A	31 DA-A	31 DA-A	31 DA-A
ARM Action Codes						
# Subsamples, Dec.						
Trt Treatment	Rate					
No. Name	Rate Unit	20	21	22	23	24
1 Wash-off (0.5 inch) Valor	3 oz/a	37.5	34.8	37.3	38.0	38.5
2 Wash-off (0.5 inch) WeatherMax	21 oz/a	28.5	29.0	34.8	40.3	35.8
3 Wash-off (0.5 inch) Aim COC	1.5 oz/a 1 % v/v	37.8	35.3	35.5	37.0	32.0
4 Wash-off (0.5 inch) Gramoxone Max NIS	2 pt/a 0.25 % v/v	36.8	36.5	38.3	39.5	41.8
5 Wash-off (0.5 inch) Sandea NIS	1 oz/a 0.25 % v/v	38.3	40.0	36.8	38.3	38.0
6 Wash-off (0.5 inch) Non-treated		41.3	38.3	40.3	38.0	38.0
7 No wash off Valor	3 oz/a	0.0	0.0	0.0	0.0	0.0
8 No wash off WeatherMax	21 oz/a	32.8	30.0	27.3	23.3	24.0
9 No wash off Aim COC	1.5 oz/a 1 % v/v	33.3	34.0	32.3	35.3	33.5
10 No wash off Gramoxone Max NIS	2 pt/a 0.25 % v/v	22.5	13.5	14.3	7.0	4.3
11 No wash off Sandea NIS	1 oz/a 0.25 % v/v	37.3	39.8	31.5	27.5	30.0
12 No wash off Non-treated		36.5	33.3	37.8	28.3	25.8
LSD (P=.05)		13.47	12.97	9.51	15.99	15.68
Standard Deviation		9.33	8.98	6.59	11.07	10.86
CV		29.29	29.6	21.61	37.72	38.17
Bartlett's X2		27.856	30.163	17.384	29.958	20.453
P(Bartlett's X2)		0.002*	0.001*	0.066	0.001*	0.025*

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

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Weed Code		tomato	tomato	Avg10pla	squash	squash	squash
Crop Code		measurement	measurement	tomato	measurement	measurement	measurement
Rating Data Type		cm	cm	height	cm	cm	cm
Rating Unit		Sep-04-03	Sep-04-03	cm	Sep-04-03	Sep-04-03	Sep-04-03
Rating Date		31 DA-A	31 DA-A	Sep-04-03	31 DA-A	31 DA-A	31 DA-A
Trt-Eval Interval							
ARM Action Codes				T2			
# Subsamples, Dec.				1			
Trt Treatment	Rate						
No. Name	Rate Unit	26	27	28	29	30	31
1 Wash-off (0.5 inch) Valor	3 oz/a	38.5	38.0	38.1	35.0	39.0	39.0
2 Wash-off (0.5 inch) WeatherMax	21 oz/a	38.0	27.8	32.6	28.5	30.8	29.8
3 Wash-off (0.5 inch) Aim COC	1.5 oz/a 1 % v/v	37.3	28.8	35.3	35.8	37.8	41.0
4 Wash-off (0.5 inch) Gramoxone Max NIS	2 pt/a 0.25 % v/v	38.3	27.3	37.4	34.5	36.5	36.5
5 Wash-off (0.5 inch) Sandea NIS	1 oz/a 0.25 % v/v	38.5	35.0	37.3	16.3	17.5	19.3
6 Wash-off (0.5 inch) Non-treated		36.0	35.5	37.7	30.8	38.8	34.8
7 No wash off Valor	3 oz/a	0.0	0.0	0.0	0.0	0.0	0.0
8 No wash off WeatherMax	21 oz/a	20.5	10.8	25.7	17.5	29.5	34.3
9 No wash off Aim COC	1.5 oz/a 1 % v/v	29.5	30.8	32.4	28.5	32.5	37.3
10 No wash off Gramoxone Max NIS	2 pt/a 0.25 % v/v	0.0	0.0	12.2	21.8	23.8	16.0
11 No wash off Sandea NIS	1 oz/a 0.25 % v/v	28.3	18.5	30.8	12.5	8.5	9.5
12 No wash off Non-treated		26.8	18.3	30.7	28.8	31.5	30.5
LSD (P=.05)		16.30	23.63	10.93	12.54	12.13	11.17
Standard Deviation		11.29	16.36	7.57	8.68	8.40	7.73
CV		40.86	72.59	25.95	35.96	30.92	28.32
Bartlett's X2		29.475	13.334	30.337	26.383	30.837	15.435
P(Bartlett's X2)		0.001*	0.148	0.001*	0.003*	0.001*	0.117

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

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

University of Georgia

Weed Code						
Crop Code		squash	squash	squash	squash	squash
Rating Data Type		measurement	measurement	measurement	measurement	measurement
Rating Unit		cm	cm	cm	cm	cm
Rating Date		Sep-04-03	Sep-04-03	Sep-04-03	Sep-04-03	Sep-04-03
Trt-Eval Interval		31 DA-A	31 DA-A	31 DA-A	31 DA-A	31 DA-A
ARM Action Codes						
# Subsamples, Dec.						
Trt Treatment	Rate					
No. Name	Rate Unit	32	33	34	35	36
1 Wash-off (0.5 inch) Valor	3 oz/a	37.8	34.8	37.8	40.0	40.8
2 Wash-off (0.5 inch) WeatherMax	21 oz/a	29.8	31.3	33.3	30.5	26.5
3 Wash-off (0.5 inch) Aim COC	1.5 oz/a 1 % v/v	39.0	35.8	36.5	34.5	35.0
4 Wash-off (0.5 inch) Gramoxone Max NIS	2 pt/a 0.25 % v/v	40.0	37.5	37.3	35.5	38.8
5 Wash-off (0.5 inch) Sandea NIS	1 oz/a 0.25 % v/v	21.5	23.3	22.5	16.5	24.8
6 Wash-off (0.5 inch) Non-treated		35.0	30.3	33.0	32.5	28.8
7 No wash off Valor	3 oz/a	0.0	0.0	0.0	0.0	0.0
8 No wash off WeatherMax	21 oz/a	37.5	30.8	29.0	29.8	31.0
9 No wash off Aim COC	1.5 oz/a 1 % v/v	35.3	37.0	37.0	36.8	39.8
10 No wash off Gramoxone Max NIS	2 pt/a 0.25 % v/v	9.3	13.8	3.0	1.3	5.8
11 No wash off Sandea NIS	1 oz/a 0.25 % v/v	8.3	11.3	9.3	7.5	10.0
12 No wash off Non-treated		31.3	37.0	31.5	33.8	36.3
LSD (P=.05)		12.29	14.64	11.57	13.42	12.51
Standard Deviation		8.51	10.14	8.01	9.29	8.67
CV		31.46	37.73	31.03	37.36	32.78
Bartlett's X2		17.541	27.001	24.448	25.711	23.302
P(Bartlett's X2)		0.063	0.003*	0.006*	0.004*	0.01*

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

University of Georgia

Weed Code			Avg10pla					
Crop Code			squash	squash	squash	squash	squash	
Rating Data Type			measurement	height	measurement	measurement	measurement	
Rating Unit			cm	cm	cm	cm	cm	
Rating Date			Sep-04-03	Sep-04-03	Sep-24-03	Sep-24-03	Sep-24-03	
Trt-Eval Interval			31 DA-A		51 DA-A	51 DA-A	51 DA-A	
ARM Action Codes				T3				
# Subsamples, Dec.				1				
Trt Treatment	Rate	Rate						
No. Name	Rate	Unit	38	39	40	41	42	43
1 Wash-off (0.5 inch) Valor	3	oz/a	39.3	38.2	51.0	51.5	49.5	50.8
2 Wash-off (0.5 inch) WeatherMax	21	oz/a	29.5	30.1	48.8	52.8	54.0	53.0
3 Wash-off (0.5 inch) Aim COC	1.5	oz/a 1 % v/v	17.0	34.3	50.0	51.0	56.8	49.3
4 Wash-off (0.5 inch) Gramoxone Max NIS	2	pt/a 0.25 % v/v	33.3	36.7	55.0	54.5	54.8	55.0
5 Wash-off (0.5 inch) Sandea NIS	1	oz/a 0.25 % v/v	10.0	19.2	41.5	44.8	47.5	49.3
6 Wash-off (0.5 inch) Non-treated			15.0	30.4	54.5	56.3	52.0	46.3
7 No wash off Valor	3	oz/a	0.0	0.0	0.0	0.0	0.0	0.0
8 No wash off WeatherMax	21	oz/a	37.5	31.1	45.5	52.0	55.3	54.5
9 No wash off Aim COC	1.5	oz/a 1 % v/v	34.8	35.4	54.0	57.3	56.3	55.5
10 No wash off Gramoxone Max NIS	2	pt/a 0.25 % v/v	0.0	9.5	57.5	62.0	52.8	38.8
11 No wash off Sandea NIS	1	oz/a 0.25 % v/v	4.3	9.0	42.0	44.0	47.0	39.5
12 No wash off Non-treated			36.0	33.3	49.5	51.0	50.0	49.8
LSD (P=.05)			15.63	9.63	15.39	18.02	18.03	17.81
Standard Deviation			10.82	6.67	10.66	12.48	12.49	12.33
CV			50.64	26.08	23.28	25.95	26.02	27.33
Bartlett's X2			25.694	30.982	10.316	23.87	27.009	22.972
P(Bartlett's X2)			0.002*	0.001*	0.413	0.008*	0.003*	0.011*

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

Column 39: T3 = @AVG([C29].[C38])

University of Georgia

Weed Code		squash measurement cm	squash measurement cm	squash measurement cm	squash measurement cm	squash measurement cm	squash measurement cm		
Crop Code		Sep-24-03	Sep-24-03	Sep-24-03	Sep-24-03	Sep-24-03	Sep-24-03		
Rating Data Type		51 DA-A	51 DA-A	51 DA-A	51 DA-A	51 DA-A	51 DA-A		
Rating Unit									
Rating Date									
Trt-Eval Interval									
ARM Action Codes									
# Subsamples, Dec.									
Trt No.	Treatment Name	Rate	Unit	44	45	46	47	48	49
1	Wash-off (0.5 inch) Valor	3	oz/a	52.0	54.5	55.8	50.3	49.3	49.8
2	Wash-off (0.5 inch) WeatherMax	21	oz/a	54.8	54.3	50.5	53.8	40.3	39.8
3	Wash-off (0.5 inch) Aim COC	1.5	oz/a 1 % v/v	52.8	53.8	53.8	50.8	54.8	51.3
4	Wash-off (0.5 inch) Gramoxone Max NIS	2	pt/a 0.25 % v/v	49.8	55.8	51.8	53.8	54.3	57.5
5	Wash-off (0.5 inch) Sandea NIS	1	oz/a 0.25 % v/v	49.5	48.0	39.3	46.5	38.3	38.0
6	Wash-off (0.5 inch) Non-treated			44.5	46.5	49.5	50.0	50.8	50.3
7	No wash off Valor	3	oz/a	0.0	0.0	0.0	0.0	0.0	0.0
8	No wash off WeatherMax	21	oz/a	52.5	47.0	56.3	60.8	47.0	40.5
9	No wash off Aim COC	1.5	oz/a 1 % v/v	61.0	59.5	60.0	60.3	55.8	51.0
10	No wash off Gramoxone Max NIS	2	pt/a 0.25 % v/v	44.3	29.5	26.0	24.0	28.5	26.8
11	No wash off Sandea NIS	1	oz/a 0.25 % v/v	37.5	42.3	40.0	36.5	39.0	39.5
12	No wash off Non-treated			56.5	45.5	51.3	49.8	49.5	41.5
LSD (P=.05)				17.75	20.35	20.73	20.31	26.63	28.72
Standard Deviation				12.29	14.09	14.36	14.07	18.44	19.89
CV				26.58	31.52	32.26	31.48	43.63	49.13
Bartlett's X2				15.169	28.593	26.043	30.048	28.844	28.987
P(Bartlett's X2)				0.126	0.001*	0.004*	0.001*	0.001*	0.001*

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

University of Georgia

Weed Code	Avg10pla	tomato	tomato	tomato	tomato	tomato	
Crop Code	squash	measurement	measurement	measurement	measurement	measurement	
Rating Data Type	height	cm	cm	cm	cm	cm	
Rating Unit	cm	cm	cm	cm	cm	cm	
Rating Date	Sep-24-03	Sep-24-03	Sep-24-03	Sep-24-03	Sep-24-03	Sep-24-04	
Trt-Eval Interval		51 DA-A	51 DA-A	51 DA-A	51 DA-A	417 DA-A	
ARM Action Codes	T4						
# Subsamples, Dec.	1						
Trt Treatment	Rate						
No. Name	Rate Unit	50	51	52	53	54	55
1 Wash-off (0.5 inch) Valor	3 oz/a	51.4	66.8	61.0	68.3	70.0	69.3
2 Wash-off (0.5 inch) WeatherMax	21 oz/a	50.2	63.8	68.3	72.3	76.8	65.8
3 Wash-off (0.5 inch) Aim COC	1.5 oz/a 1 % v/v	52.4	63.5	71.5	63.5	59.3	60.5
4 Wash-off (0.5 inch) Gramoxone Max NIS	2 pt/a 0.25 % v/v	54.2	67.5	68.3	68.8	70.0	67.3
5 Wash-off (0.5 inch) Sanda NIS	1 oz/a 0.25 % v/v	44.3	64.3	61.8	68.8	68.3	67.0
6 Wash-off (0.5 inch) Non-treated		50.1	65.5	69.0	67.0	62.8	66.8
7 No wash off Valor	3 oz/a	0.0	0.0	0.0	0.0	0.0	0.0
8 No wash off WeatherMax	21 oz/a	51.1	56.3	57.5	58.5	56.0	55.0
9 No wash off Aim COC	1.5 oz/a 1 % v/v	57.1	63.3	65.5	66.0	65.3	63.5
10 No wash off Gramoxone Max NIS	2 pt/a 0.25 % v/v	39.0	56.3	55.8	41.5	24.3	29.3
11 No wash off Sanda NIS	1 oz/a 0.25 % v/v	40.7	59.3	62.3	61.0	62.3	57.5
12 No wash off Non-treated		49.4	61.8	63.8	65.3	58.3	62.3
LSD (P=.05)		15.59	13.67	12.85	17.52	16.70	17.79
Standard Deviation		10.80	9.47	8.90	12.13	11.57	12.32
CV		24.0	16.51	15.16	20.78	20.63	22.26
Bartlett's X2		17.469	12.088	21.045	28.141	22.172	36.869
P(Bartlett's X2)		0.065	0.279	0.021*	0.002*	0.014*	0.001*

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

Column 50: T4 = @AVG([C40].[C49])

University of Georgia

Weed Code							Avg10pla
Crop Code		tomato	tomato	tomato	tomato	tomato	tomato
Rating Data Type		measurement	measurement	measurement	measurement	measurement	height
Rating Unit		cm	cm	cm	cm	cm	cm
Rating Date		Sep-24-03	Sep-24-03	Sep-24-03	Sep-24-03	Sep-24-03	Sep-24-03
Trt-Eval Interval		51 DA-A	51 DA-A	51 DA-A	51 DA-A	51 DA-A	
ARM Action Codes							T5
# Subsamples, Dec.							1
Trt Treatment	Rate						
No. Name	Rate Unit	56	57	58	59	60	61
1 Wash-off (0.5 inch) Valor	3 oz/a	69.8	70.3	65.3	73.0	68.0	68.2
2 Wash-off (0.5 inch) WeatherMax	21 oz/a	69.5	70.0	65.3	70.8	73.0	69.5
3 Wash-off (0.5 inch) Aim COC	1.5 oz/a 1 % v/v	71.3	66.5	68.0	65.3	67.0	65.6
4 Wash-off (0.5 inch) Gramoxone Max NIS	2 pt/a 0.25 % v/v	64.5	69.3	68.3	65.8	64.3	67.4
5 Wash-off (0.5 inch) Sandea NIS	1 oz/a 0.25 % v/v	67.8	70.3	67.5	68.3	61.8	66.6
6 Wash-off (0.5 inch) Non-treated		65.3	67.3	68.5	66.0	66.8	66.5
7 No wash off Valor	3 oz/a	0.0	0.0	0.0	0.0	0.0	0.0
8 No wash off WeatherMax	21 oz/a	42.0	37.8	27.3	30.0	20.0	44.0
9 No wash off Aim COC	1.5 oz/a 1 % v/v	65.0	65.0	61.8	49.8	48.5	61.4
10 No wash off Gramoxone Max NIS	2 pt/a 0.25 % v/v	27.3	9.3	0.0	0.0	0.0	24.4
11 No wash off Sandea NIS	1 oz/a 0.25 % v/v	62.3	56.0	61.0	59.0	60.5	60.1
12 No wash off Non-treated		68.5	62.3	64.0	63.0	65.0	63.4
LSD (P=.05)		20.23	17.50	18.50	23.30	20.65	13.17
Standard Deviation		14.01	12.12	12.82	16.14	14.30	9.12
CV		24.98	22.59	24.94	31.71	28.86	16.66
Bartlett's X2		29.81	27.004	33.021	32.764	23.636	29.813
P(Bartlett's X2)		0.001*	0.003*	0.001*	0.001*	0.005*	0.001*

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

Column 61: T5 = @AVG([C51],[C60])

University of Georgia

Weed Code	Harvest1 squash fruit	Harvest1 squash fruit	Harvest1 squash cull	Harvest1 squash cull	Harvest2 squash fruit	Harvest2 squash fruit	Harvest2 squash cull			
Crop Code	#/plot	lb/plot	#/plot	lb/plot	#/plot	lb/plot	#/plot			
Rating Data Type	Aug-27-03	Aug-27-03	Aug-27-03	Aug-27-03	Aug-29-03	Aug-29-03	Aug-29-03			
Rating Unit	23 DA-A	23 DA-A	23 DA-A	23 DA-A	25 DA-A	25 DA-A	25 DA-A			
Rating Date										
Trt-Eval Interval										
ARM Action Codes										
# Subsamples, Dec.										
Trt No.	Treatment Name	Rate	Unit	62	63	64	65	66	67	68
1	Wash-off (0.5 inch) Valor	3	oz/a	0.0	0.0	0.0	0.0	1.8	0.3	0.0
2	Wash-off (0.5 inch) WeatherMax	21	oz/a	0.0	0.0	0.0	0.0	2.8	0.6	0.0
3	Wash-off (0.5 inch) Aim COC	1.5	oz/a % v/v	0.0	0.0	0.3	0.2	1.5	0.5	0.0
4	Wash-off (0.5 inch) Gramoxone Max NIS	2	pt/a % v/v	0.3	0.1	0.0	0.0	1.0	0.3	0.0
5	Wash-off (0.5 inch) Sandea NIS	1	oz/a % v/v	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	Wash-off (0.5 inch) Non-treated			0.0	0.0	0.0	0.0	2.0	0.5	0.0
7	No wash off Valor	3	oz/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	No wash off WeatherMax	21	oz/a	0.0	0.0	0.0	0.0	1.0	0.2	0.0
9	No wash off Aim COC	1.5	oz/a % v/v	0.0	0.0	0.0	0.0	2.0	0.5	0.3
10	No wash off Gramoxone Max NIS	2	pt/a % v/v	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	No wash off Sandea NIS	1	oz/a % v/v	0.0	0.0	0.0	0.0	1.8	0.6	0.0
12	No wash off Non-treated			0.0	0.0	0.0	0.0	2.0	0.5	0.0
LSD (P=.05)		0.21	0.04	0.21	0.13	3.06	0.75	0.21		
Standard Deviation		0.14	0.03	0.14	0.09	2.12	0.52	0.14		
CV		692.82	692.82	692.82	692.82	161.55	166.44	692.82		
Bartlett's X2		0.0	0.0	0.0	0.0	2.96	6.063	0.0		
P(Bartlett's X2)		0.937	0.64	.		

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

University of Georgia

Weed Code	Harvest2	Harvest3	Harvest3	Harvest3	Harvest3	Harvest4	Harvest4	
Crop Code	squash	squash	squash	squash	squash	squash	squash	
Rating Data Type	cull	fruit	fruit	cull	cull	fruit	fruit	
Rating Unit	lb/plot	#/plot	lb/plot	#/plot	lb/plot	#/plot	lb/plot	
Rating Date	Aug-29-03	Sep-01-03	Sep-01-03	Sep-01-03	Sep-01-03	Sep-03-03	Sep-03-03	
Trt-Eval Interval	25 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	30 DA-A	30 DA-A	
ARM Action Codes								
# Subsamples, Dec.								
Trt Treatment	Rate							
No. Name	Rate Unit	69	70	71	72	73	74	75
1 Wash-off (0.5 inch) Valor	3 oz/a	0.0	7.5	2.0	0.0	0.0	5.5	1.1
2 Wash-off (0.5 inch) WeatherMax	21 oz/a	0.0	9.8	2.5	0.0	0.0	4.8	1.1
3 Wash-off (0.5 inch) Aim COC	1.5 oz/a 1 % v/v	0.0	6.5	1.9	0.0	0.0	2.8	0.6
4 Wash-off (0.5 inch) Gramoxone Max NIS	2 pt/a 0.25 % v/v	0.0	8.0	1.9	0.0	0.0	4.3	0.7
5 Wash-off (0.5 inch) Sandea NIS	1 oz/a 0.25 % v/v	0.0	1.0	0.3	0.0	0.0	0.5	0.1
6 Wash-off (0.5 inch) Non-treated		0.0	5.8	1.3	0.0	0.0	3.0	0.6
7 No wash off Valor	3 oz/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8 No wash off WeatherMax	21 oz/a	0.0	3.5	1.0	0.0	0.0	2.5	0.3
9 No wash off Aim COC	1.5 oz/a 1 % v/v	0.1	6.3	1.3	0.0	0.0	3.5	0.9
10 No wash off Gramoxone Max NIS	2 pt/a 0.25 % v/v	0.0	0.3	0.1	0.0	0.0	0.8	0.1
11 No wash off Sandea NIS	1 oz/a 0.25 % v/v	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12 No wash off Non-treated		0.0	6.3	1.2	0.0	0.0	5.3	1.0
LSD (P=.05)		0.04	2.41	0.73	0.00	0.00	3.58	0.86
Standard Deviation		0.03	1.67	0.51	0.00	0.00	2.48	0.59
CV		692.82	36.6	46.0	0.0	0.0	90.73	112.21
Bartlett's X2		0.0	15.867	11.385	0.0	0.0	18.615	24.72
P(Bartlett's X2)		.	0.07	0.25	.	.	0.029*	0.003*

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

University of Georgia

Weed Code	Harvest4 squash cull #/plot Sep-03-03 30 DA-A	Harvest4 squash cull lb/plot Sep-03-03 30 DA-A	Harvest5 squash fruit #/plot Sep-05-03 32 DA-A	Harvest5 squash fruit lb/plot Sep-05-03 32 DA-A	Harvest5 squash cull #/plot Sep-05-03 32 DA-A	Harvest5 squash cull lb/plot Sep-05-03 32 DA-A	Harvest6 squash fruit #/plot Sep-08-03 35 DA-A
Trt Treatment No. Name Rate Unit	76	77	78	79	80	81	82
1 Wash-off (0.5 inch) Valor 3 oz/a	0.0	0.0	4.3	1.2	0.3	0.1	3.5
2 Wash-off (0.5 inch) WeatherMax 21 oz/a	0.0	0.0	5.5	1.5	0.3	0.1	4.0
3 Wash-off (0.5 inch) Aim 1.5 oz/a COC 1 % v/v	0.3	0.0	7.0	1.8	0.0	0.0	3.3
4 Wash-off (0.5 inch) Gramoxone Max 2 pt/a NIS 0.25 % v/v	0.0	0.0	6.5	1.7	0.5	0.2	3.3
5 Wash-off (0.5 inch) Sandea 1 oz/a NIS 0.25 % v/v	0.0	0.0	0.8	0.2	0.0	0.0	2.0
6 Wash-off (0.5 inch) Non-treated	0.0	0.0	6.0	1.4	0.0	0.0	3.3
7 No wash off Valor 3 oz/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8 No wash off WeatherMax 21 oz/a	0.0	0.0	5.0	1.2	0.0	0.0	2.0
9 No wash off Aim 1.5 oz/a COC 1 % v/v	0.3	0.0	4.8	1.0	0.0	0.0	2.3
10 No wash off Gramoxone Max 2 pt/a NIS 0.25 % v/v	0.0	0.0	1.3	0.2	0.3	0.1	0.5
11 No wash off Sandea 1 oz/a NIS 0.25 % v/v	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12 No wash off Non-treated	0.0	0.0	4.3	0.7	0.0	0.0	2.3
LSD (P=.05)	0.30	0.00	2.72	0.85	0.45	0.11	2.34
Standard Deviation	0.21	0.00	1.88	0.59	0.31	0.08	1.62
CV	489.69	0.0	49.9	66.75	298.36	308.79	74.02
Bartlett's X2	0.0	0.0	9.793	17.343	0.094	2.157	14.959
P(Bartlett's X2)	0.001*	.	0.368	0.044*	0.993	0.54	0.092

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

University of Georgia

Weed Code	Harvest6 squash fruit	Harvest6 squash cull	Harvest6 squash cull	Harvest7 squash fruit	Harvest7 squash fruit	Harvest7 squash cull	Harvest7 squash cull
Crop Code							
Rating Data Type							
Rating Unit	lb/plot	#/plot	lb/plot	#/plot	lb/plot	#/plot	lb/plot
Rating Date	Sep-08-03	Sep-08-03	Sep-08-03	Sep-10-03	Sep-10-03	Sep-10-03	Sep-10-03
Trt-Eval Interval	35 DA-A	35 DA-A	35 DA-A	37 DA-A	37 DA-A	37 DA-A	37 DA-A
ARM Action Codes							
# Subsamples, Dec.							
Trt Treatment							
No. Name							
Rate Unit							
	83	84	85	86	87	88	89
1 Wash-off (0.5 inch) Valor	0.9	1.0	0.2	6.0	1.6	0.0	0.0
	3 oz/a						
2 Wash-off (0.5 inch) WeatherMax	1.1	0.0	0.0	4.5	1.2	0.3	0.1
	21 oz/a						
3 Wash-off (0.5 inch) Aim	0.7	0.0	0.0	6.5	1.9	0.0	0.0
	1.5 oz/a						
	1 % v/v						
4 Wash-off (0.5 inch) Gramoxone Max	0.9	0.3	0.1	4.8	1.1	0.0	0.0
	2 pt/a						
	0.25 % v/v						
5 Wash-off (0.5 inch) Sandea	0.4	0.0	0.0	0.5	0.2	0.0	0.0
	1 oz/a						
	0.25 % v/v						
6 Wash-off (0.5 inch) Non-treated	0.8	0.0	0.0	4.3	0.9	0.0	0.0
7 No wash off Valor	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	3 oz/a						
8 No wash off WeatherMax	0.5	0.0	0.0	5.3	1.3	0.5	0.2
	21 oz/a						
9 No wash off Aim	0.6	0.5	0.3	6.8	1.4	0.3	0.1
	1.5 oz/a						
	1 % v/v						
10 No wash off Gramoxone Max	0.1	0.0	0.0	0.8	0.2	0.3	0.1
	2 pt/a						
	0.25 % v/v						
11 No wash off Sandea	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	1 oz/a						
	0.25 % v/v						
12 No wash off Non-treated	0.5	0.0	0.0	9.0	1.8	0.0	0.0
LSD (P=.05)	0.62	0.76	0.23	4.59	0.98	0.44	0.16
Standard Deviation	0.43	0.53	0.16	3.18	0.68	0.30	0.11
CV	82.69	361.81	420.57	78.99	71.66	290.45	330.29
Bartlett's X2	21.401	2.732	6.898	18.633	16.421	0.094	4.48
P(Bartlett's X2)	0.011*	0.255	0.032*	0.029*	0.059	0.993	0.214

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

University of Georgia

Weed Code	Harvest8 squash fruit	Harvest8 squash fruit	Harvest8 squash cull	Harvest8 squash cull	Harvest9 squash fruit	Harvest9 squash fruit	Harvest9 squash cull			
Crop Code	#/plot	lb/plot	#/plot	lb/plot	#/plot	lb/plot	#/plot			
Rating Data Type	Sep-19-03	Sep-19-03	Sep-19-03	Sep-19-03	Sep-22-03	Sep-22-03	Sep-22-03			
Rating Unit	46 DA-A	46 DA-A	46 DA-A	46 DA-A	49 DA-A	49 DA-A	49 DA-A			
Rating Date										
Trt-Eval Interval										
ARM Action Codes										
# Subsamples, Dec.										
Trt No.	Treatment Name	Rate	Unit	90	91	92	93	94	95	96
1	Wash-off (0.5 inch) Valor	3	oz/a	5.0	0.6	0.0	0.0	10.0	4.1	0.0
2	Wash-off (0.5 inch) WeatherMax	21	oz/a	3.8	1.0	0.0	0.0	8.5	2.9	0.0
3	Wash-off (0.5 inch) Aim COC	1.5	oz/a % v/v	6.0	1.2	0.0	0.0	14.5	5.2	0.3
4	Wash-off (0.5 inch) Gramoxone Max NIS	2	pt/a % v/v	4.8	1.2	0.0	0.0	8.3	3.3	0.8
5	Wash-off (0.5 inch) Sandea NIS	1	oz/a % v/v	4.0	0.9	0.0	0.0	10.5	2.4	1.0
6	Wash-off (0.5 inch) Non-treated			4.5	1.4	0.0	0.0	8.3	2.9	0.0
7	No wash off Valor	3	oz/a	0.0	0.3	0.0	0.0	0.0	0.0	-0.1
8	No wash off WeatherMax	21	oz/a	4.3	0.9	0.0	0.0	10.3	3.2	0.6
9	No wash off Aim COC	1.5	oz/a % v/v	5.5	1.6	0.3	0.1	7.8	3.1	0.6
10	No wash off Gramoxone Max NIS	2	pt/a % v/v	2.5	0.6	0.7	0.1	9.3	3.6	-0.1
11	No wash off Sandea NIS	1	oz/a % v/v	2.5	0.5	0.0	0.0	4.3	1.1	-0.1
12	No wash off Non-treated			6.3	1.5	0.0	0.0	9.0	4.1	0.6
LSD (P=.05)				3.70	1.10	0.45	0.12	5.91	2.23	1.18
Standard Deviation				2.56	0.76	0.31	0.08	4.09	1.54	0.81
CV				62.78	80.73	399.27	497.27	48.84	52.21	266.22
Bartlett's X2				9.266	12.2	1.651	0.0	11.139	12.119	4.336
P(Bartlett's X2)				0.507	0.272	0.199	1.00	0.347	0.277	0.502

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

University of Georgia

Weed Code	Harvest9	Harv10	Harv10	Harv10	Harv10	Harv11	Harv11	
Crop Code	squash	squash	squash	squash	squash	squash	squash	
Rating Data Type	cull	fruit	fruit	cull	cull	fruit	fruit	
Rating Unit	lb/plot	#/plot	lb/plot	#/plot	lb/plot	#/plot	lb/plot	
Rating Date	Sep-22-03	Sep-12-03	Sep-12-03	Sep-12-03	Sep-12-03	Sep-16-03	Sep-16-03	
Trt-Eval Interval	49 DA-A	39 DA-A	39 DA-A	39 DA-A	39 DA-A	43 DA-A	43 DA-A	
ARM Action Codes								
# Subsamples, Dec.								
Trt Treatment	Rate							
No. Name	Rate Unit	97	98	99	100	101	102	103
1 Wash-off (0.5 inch) Valor	3 oz/a	0.0	7.8	2.1	1.8	1.0	17.5	6.0
2 Wash-off (0.5 inch) WeatherMax	21 oz/a	0.0	5.8	1.8	1.8	0.7	20.8	7.7
3 Wash-off (0.5 inch) Aim COC	1.5 oz/a 1 % v/v	0.2	8.8	2.3	0.8	0.4	17.3	5.7
4 Wash-off (0.5 inch) Gramoxone Max NIS	2 pt/a 0.25 % v/v	0.4	10.8	2.8	0.0	0.0	15.0	6.7
5 Wash-off (0.5 inch) Sandea NIS	1 oz/a 0.25 % v/v	0.4	4.8	1.3	0.0	0.0	9.8	3.0
6 Wash-off (0.5 inch) Non-treated		0.0	8.8	2.7	0.3	0.1	14.3	6.0
7 No wash off Valor	3 oz/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8 No wash off WeatherMax	21 oz/a	0.3	6.8	2.0	0.0	0.0	13.8	5.5
9 No wash off Aim COC	1.5 oz/a 1 % v/v	0.1	5.8	1.5	0.0	0.0	13.5	6.1
10 No wash off Gramoxone Max NIS	2 pt/a 0.25 % v/v	0.0	2.5	0.8	0.0	0.0	5.8	2.0
11 No wash off Sandea NIS	1 oz/a 0.25 % v/v	0.0	0.3	0.1	1.0	0.2	0.8	0.2
12 No wash off Non-treated		0.3	7.3	1.8	1.0	0.3	10.5	4.1
LSD (P=.05)		0.49	4.62	0.99	1.63	0.80	7.92	2.73
Standard Deviation		0.34	3.20	0.69	1.13	0.55	5.48	1.89
CV		261.03	55.59	43.49	208.89	275.79	47.43	43.06
Bartlett's X2		3.81	13.064	15.563	7.312	20.45	13.706	12.785
P(Bartlett's X2)		0.577	0.22	0.113	0.198	0.001*	0.187	0.236

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

University of Georgia

Weed Code	Harv11 squash cull #/plot Sep-16-03 43 DA-A	Harv11 squash cull lb/plot Sep-16-03 43 DA-A	Harv12 squash fruit #/plot Sep-17-03 44 DA-A	Harv12 squash fruit lb/plot Sep-17-03 44 DA-A	Harv12 squash cull #/plot Sep-17-03 44 DA-A	Harv12 squash cull lb/plot Sep-17-03 44 DA-A	Harv13 squash fruit #/plot Sep-24-03 51 DA-A
ARM Action Codes # Subsamples, Dec.							
Trt Treatment No. Name Rate Unit	104	105	106	107	108	109	110
1 Wash-off (0.5 inch) Valor 3 oz/a	0.3	0.1	7.8	2.2	0.3	0.1	9.0
2 Wash-off (0.5 inch) WeatherMax 21 oz/a	2.8	0.4	5.3	1.3	2.3	0.7	10.3
3 Wash-off (0.5 inch) Aim 1.5 oz/a COC 1 % v/v	0.3	0.2	7.8	1.7	0.3	0.1	11.5
4 Wash-off (0.5 inch) Gramoxone Max 2 pt/a NIS 0.25 % v/v	0.3	0.1	10.3	2.3	0.0	0.0	12.5
5 Wash-off (0.5 inch) Sandea 1 oz/a NIS 0.25 % v/v	0.3	0.4	2.8	0.7	0.5	0.2	8.3
6 Wash-off (0.5 inch) Non-treated	0.3	0.1	10.3	2.5	0.0	0.0	8.5
7 No wash off Valor 3 oz/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8 No wash off WeatherMax 21 oz/a	0.3	0.3	5.5	1.5	0.3	0.1	10.0
9 No wash off Aim 1.5 oz/a COC 1 % v/v	0.5	0.4	6.3	1.5	0.6	0.1	5.8
10 No wash off Gramoxone Max 2 pt/a NIS 0.25 % v/v	0.0	0.0	2.0	0.4	0.0	0.0	5.0
11 No wash off Sandea 1 oz/a NIS 0.25 % v/v	1.0	0.1	1.0	0.5	0.0	0.0	1.3
12 No wash off Non-treated	0.0	0.0	10.3	3.2	0.5	0.4	4.8
LSD (P=.05)	2.13	0.53	5.73	1.56	2.16	0.68	7.12
Standard Deviation	1.48	0.37	3.97	1.08	1.49	0.47	4.93
CV	308.31	234.0	68.96	74.41	393.22	381.85	68.2
Bartlett's X2	43.208	17.905	12.341	13.147	29.149	29.116	17.203
P(Bartlett's X2)	0.001*	0.022*	0.263	0.216	0.001*	0.001*	0.07

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

University of Georgia

Weed Code	Harv13	Harv13	Harv13	Harv14	Harv14	Harv14	Harv14
Crop Code	squash	squash	squash	squash	squash	squash	squash
Rating Data Type	fruit	cull	cull	fruit	fruit	cull	cull
Rating Unit	lb/plot	#/plot	lb/plot	#/plot	lb/plot	#/plot	lb/plot
Rating Date	Sep-24-03	Sep-24-03	Sep-24-03	Sep-26-03	Sep-26-03	Sep-26-03	Sep-26-03
Trt-Eval Interval	51 DA-A	51 DA-A	51 DA-A	53 DA-A	53 DA-A	53 DA-A	53 DA-A
ARM Action Codes							
# Subsamples, Dec.							
Trt Treatment							
No. Name							
Rate Unit							
	111	112	113	114	115	116	117
1 Wash-off (0.5 inch) Valor	2.2	0.0	0.0	15.5	3.1	0.5	0.1
3 oz/a							
2 Wash-off (0.5 inch) WeatherMax	2.4	0.0	0.0	13.5	3.3	0.3	0.2
21 oz/a							
3 Wash-off (0.5 inch) Aim	3.2	0.0	0.0	14.0	3.2	0.3	0.1
1.5 oz/a							
COC							
1 % v/v							
4 Wash-off (0.5 inch) Gramoxone Max	3.3	0.0	0.0	12.8	3.1	0.3	0.2
2 pt/a							
NIS							
0.25 % v/v							
5 Wash-off (0.5 inch) Sandea	1.3	0.0	0.0	10.5	3.3	0.8	0.1
1 oz/a							
NIS							
0.25 % v/v							
6 Wash-off (0.5 inch) Non-treated	2.1	0.3	0.1	11.3	2.5	0.3	0.1
7 No wash off Valor	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3 oz/a							
8 No wash off WeatherMax	2.1	0.3	0.1	15.5	3.9	0.8	0.2
21 oz/a							
9 No wash off Aim	1.7	0.3	0.1	13.8	3.3	0.0	0.0
1.5 oz/a							
COC							
1 % v/v							
10 No wash off Gramoxone Max	1.1	0.0	0.0	4.0	1.1	1.3	0.3
2 pt/a							
NIS							
0.25 % v/v							
11 No wash off Sandea	0.3	1.3	0.3	9.0	1.6	0.0	0.0
1 oz/a							
NIS							
0.25 % v/v							
12 No wash off Non-treated	1.3	0.3	0.1	14.5	4.3	0.3	0.2
LSD (P=.05)	1.65	0.74	0.15	6.70	1.77	1.37	0.37
Standard Deviation	1.14	0.51	0.10	4.64	1.23	0.95	0.25
CV	66.18	273.65	273.65	41.49	45.33	252.48	226.4
Bartlett's X2	16.546	7.412	7.412	3.645	6.211	18.601	8.579
P(Bartlett's X2)	0.085	0.116	0.116	0.962	0.797	0.017*	0.379

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

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Weed Code	Harv15 squash	Harv15 squash	Harv15 squash	Harv15 squash	Tot1st5p squash	Tot1st5p squash	Tot1st5p squash	Tot1st5p squash			
Crop Code	fruit	fruit	cull	cull	fruit	fruit	cull	cull			
Rating Data Type	#/plot	lb/plot	#/plot	lb/plot	#/plot	lb/plot	#/plot	lb/plot			
Rating Unit	Sep-29-03	Sep-23-03	Sep-23-03	Sep-23-03	Jan-13-04	Jan-13-04	Jan-13-04	Jan-13-04			
Rating Date	56 DA-A	50 DA-A	50 DA-A	50 DA-A							
Trt-Eval Interval					T6	T7	T8	T9			
ARM Action Codes					1	1	1	1			
# Subsamples, Dec.											
Trt No.	Treatment Name	Rate	Unit	118	119	120	121	122	123	124	125
1	Wash-off (0.5 inch) Valor	3	oz/a	16.5	6.3	0.5	0.2	19.0	4.6	0.3	0.1
2	Wash-off (0.5 inch) WeatherMax	21	oz/a	14.5	4.5	2.3	0.9	22.8	5.7	0.3	0.1
3	Wash-off (0.5 inch) Aim COC	1.5	oz/a % v/v	12.8	4.4	0.0	0.0	17.8	4.6	0.5	0.2
4	Wash-off (0.5 inch) Gramoxone Max NIS	2	pt/a % v/v	9.8	3.8	0.0	0.0	20.0	4.5	0.5	0.2
5	Wash-off (0.5 inch) Sanda NIS	1	oz/a % v/v	8.0	2.5	0.0	0.0	2.3	0.5	0.0	0.0
6	Wash-off (0.5 inch) Non-treated			20.3	6.6	0.3	0.3	16.8	3.8	0.0	0.0
7	No wash off Valor	3	oz/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	No wash off WeatherMax	21	oz/a	11.8	4.1	0.0	0.0	12.0	2.6	0.0	0.0
9	No wash off Aim COC	1.5	oz/a % v/v	14.3	5.7	1.8	0.6	16.5	3.7	0.5	0.1
10	No wash off Gramoxone Max NIS	2	pt/a % v/v	10.5	4.6	0.0	0.0	2.3	0.4	0.4	0.1
11	No wash off Sanda NIS	1	oz/a % v/v	6.5	2.1	0.0	0.0	1.8	0.6	0.0	0.0
12	No wash off Non-treated			12.0	4.6	0.0	0.0	17.8	3.3	0.0	0.0
LSD (P=.05)				10.22	3.56	1.74	0.68	7.80	2.03	0.65	0.17
Standard Deviation				7.08	2.46	1.21	0.47	5.40	1.41	0.45	0.12
CV				62.09	60.24	305.28	295.35	43.56	49.74	229.61	286.42
Bartlett's X2				16.648	8.707	11.805	5.56	10.643	11.421	2.289	7.495
P(Bartlett's X2)				0.083	0.56	0.008*	0.135	0.386	0.326	0.808	0.186

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

Column 122: T6 = [62]+[66]+[70]+[74]+[78]

Column 123: T7 = [63]+[67]+[71]+[75]+[79]

Column 124: T8 = [64]+[68]+[72]+[76]+[80]

Column 125: T9 = [65]+[69]+[73]+[77]+[81]

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Weed Code	Total squash fruit #/plot	Total squash fruit lb/plot	Total squash cull #/plot	Total squash cull lb/plot	tomato jumbo #/plot	tomato jumbo wt/plot	tomato large #/plot	tomato large wt/plot			
Crop Code	Jan-13-04	Jan-13-04	Jan-13-04	Jan-13-04	Oct-31-03	Oct-31-03	Oct-31-03	Oct-31-03			
Rating Data Type					88 DA-A	88 DA-A	88 DA-A	88 DA-A			
Rating Unit											
Rating Date											
Trt-Eval Interval											
ARM Action Codes	T10	T11	T12	T13							
# Subsamples, Dec.	1	1	1	1							
Trt No.	Treatment Name	Rate	Rate Unit	126	127	128	129	130	131	132	133
1	Wash-off (0.5 inch) Valor	3	oz/a	116.5	33.5	4.5	1.6	34.3	21.9	19.8	7.2
2	Wash-off (0.5 inch) WeatherMax	21	oz/a	112.5	32.7	9.8	2.9	45.8	28.1	14.3	5.2
3	Wash-off (0.5 inch) Aim	1.5	oz/a	121.3	33.9	2.3	1.1	42.0	25.5	20.3	7.1
	COC	1	% v/v								
4	Wash-off (0.5 inch) Gramoxone Max	2	pt/a	115.0	32.7	2.0	0.8	45.3	32.1	14.8	5.4
	NIS	0.25	% v/v								
5	Wash-off (0.5 inch) Sandea	1	oz/a	65.8	16.3	2.5	1.0	39.5	24.9	16.8	6.0
	NIS	0.25	% v/v								
6	Wash-off (0.5 inch) Non-treated			101.3	31.8	1.3	0.6	39.3	24.3	16.0	5.8
7	No wash off Valor	3	oz/a	0.0	0.3	0.0	-0.1	0.0	0.0	0.0	0.0
8	No wash off WeatherMax	21	oz/a	100.8	27.4	2.7	0.9	20.5	11.0	27.5	9.5
9	No wash off Aim	1.5	oz/a	97.5	29.9	3.0	0.7	23.8	14.7	17.0	9.7
	COC	1	% v/v								
10	No wash off Gramoxone Max	2	pt/a	38.5	14.7	2.5	0.4	15.0	8.3	13.3	4.5
	NIS	0.25	% v/v								
11	No wash off Sandea	1	oz/a	29.8	6.8	4.3	0.5	17.8	10.4	18.8	6.7
	NIS	0.25	% v/v								
12	No wash off Non-treated			106.0	30.1	2.7	0.7	27.3	17.2	19.0	6.8
LSD (P=.05)				28.07	9.00	7.60	2.29	9.75	7.46	7.39	4.14
Standard Deviation				19.44	6.23	5.22	1.58	6.75	5.17	5.12	2.87
CV				23.21	25.8	167.57	171.93	23.13	28.42	31.14	46.69
Bartlett's X2				8.854	22.889	38.194	30.586	8.811	11.454	10.067	28.309
P(Bartlett's X2)				0.546	0.018*	0.001*	0.001*	0.55	0.323	0.435	0.002*

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

Column 126: T10 = [62]+[66]+[70]+[74]+[78]+[82]+[86]+[90]+[94]+[98]+[102]+[106]+[110]+[114]+[114]

Column 127: T11 = [63]+[67]+[71]+[75]+[79]+[83]+[87]+[91]+[95]+[99]+[103]+[107]+[111]+[115]+[119]

Column 128: T12 = [64]+[68]+[72]+[76]+[80]+[84]+[88]+[92]+[96]+[100]+[104]+[108]+[112]+[116]+[120]

Column 129: T13 = [65]+[69]+[73]+[77]+[81]+[85]+[89]+[93]+[97]+[101]+[105]+[109]+[113]+[117]+[121]

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Weed Code											
Crop Code		tomato	tomato	tomato	tomato	tomato	tomato	tomato	tomato		
Rating Data Type		medium	medium	small	small	extra small	extra small	cull	cull		
Rating Unit		#/plot	wt/plot	#/plot	wt/plot	#/plot	wt/plot	#/plot	wt/plot		
Rating Date		Oct-31-03	Oct-31-03	Oct-31-03	Oct-31-03	Oct-31-03	Oct-31-03	Oct-31-03	Oct-31-03		
Trt-Eval Interval		88 DA-A	88 DA-A	88 DA-A	88 DA-A	88 DA-A	88 DA-A	88 DA-A	88 DA-A		
ARM Action Codes											
# Subsamples, Dec.											
Trt No.	Treatment Name	Rate	Unit								
				134	135	136	137	138	139	140	141
1	Wash-off (0.5 inch) Valor	3	oz/a	20.5	5.4	11.8	2.5	43.8	4.7	9.5	3.8
2	Wash-off (0.5 inch) WeatherMax	21	oz/a	15.5	4.1	8.8	1.7	28.0	3.1	10.8	4.5
3	Wash-off (0.5 inch) Aim COC	1.5	oz/a 1 % v/v	18.8	4.5	11.3	1.3	31.5	3.4	11.3	6.0
4	Wash-off (0.5 inch) Gramoxone Max NIS	2	pt/a 0.25 % v/v	13.0	3.4	7.8	1.7	25.8	2.7	11.8	6.2
5	Wash-off (0.5 inch) Sandea NIS	1	oz/a 0.25 % v/v	14.0	3.8	15.8	3.3	35.5	3.6	13.0	6.5
6	Wash-off (0.5 inch) Non-treated			20.3	5.0	19.0	2.3	35.8	4.0	12.3	6.1
7	No wash off Valor	3	oz/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	No wash off WeatherMax	21	oz/a	24.0	6.2	8.3	1.7	43.3	3.7	5.0	2.0
9	No wash off Aim COC	1.5	oz/a 1 % v/v	24.3	6.1	14.5	2.8	39.5	4.0	10.5	5.1
10	No wash off Gramoxone Max NIS	2	pt/a 0.25 % v/v	20.8	5.0	8.8	2.0	42.3	3.4	5.5	2.4
11	No wash off Sandea NIS	1	oz/a 0.25 % v/v	25.8	6.9	11.0	2.2	47.5	4.8	7.0	3.0
12	No wash off Non-treated			21.8	5.6	14.0	2.8	34.3	4.3	9.0	4.0
LSD (P=.05)				15.11	3.58	10.94	1.91	22.43	2.37	6.50	3.86
Standard Deviation				10.46	2.48	7.58	1.32	15.53	1.64	4.50	2.67
CV				57.45	53.39	69.53	66.21	45.8	47.78	51.22	65.01
Bartlett's X2				18.022	18.952	14.726	8.632	15.189	11.22	5.474	11.842
P(Bartlett's X2)				0.055	0.041*	0.142	0.567	0.125	0.341	0.857	0.296

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

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Weed Code		Total	Total
Crop Code		tomato	tomato
Rating Data Type		har. fruit	har. fruit
Rating Unit		#/plot	lb/plot
Rating Date		Jan-13-04	Jan-13-04
Trt-Eval Interval			
ARM Action Codes		T14	T15
# Subsamples, Dec.		1	1
Trt Treatment	Rate		
No. Name	Rate Unit	142	143
1 Wash-off (0.5 inch)		86.3	37.0
Valor	3 oz/a		
2 Wash-off (0.5 inch)		84.3	39.0
WeatherMax	21 oz/a		
3 Wash-off (0.5 inch)		92.3	38.3
Aim	1.5 oz/a		
COC	1 % v/v		
4 Wash-off (0.5 inch)		80.8	42.5
Gramoxone Max	2 pt/a		
NIS	0.25 % v/v		
5 Wash-off (0.5 inch)		86.0	37.9
Sandea	1 oz/a		
NIS	0.25 % v/v		
6 Wash-off (0.5 inch)		94.5	37.4
Non-treated			
7 No wash off		0.0	0.0
Valor	3 oz/a		
8 No wash off		80.3	28.3
WeatherMax	21 oz/a		
9 No wash off		79.5	33.3
Aim	1.5 oz/a		
COC	1 % v/v		
10 No wash off		57.8	19.7
Gramoxone Max	2 pt/a		
NIS	0.25 % v/v		
11 No wash off		73.3	26.2
Sandea	1 oz/a		
NIS	0.25 % v/v		
12 No wash off		82.0	32.3
Non-treated			
LSD (P=.05)		31.33	11.19
Standard Deviation		21.70	7.75
CV		29.03	25.02
Bartlett's X2		4.396	4.66
P(Bartlett's X2)		0.928	0.913

Means followed by same letter do not significantly differ

(P=.05, Duncan's New MRT)

Column 142: T14 = [130]+[132]+[134]+[136]

Column 143: T15 = [131]+[133]+[135]+[137]

Trial Comments

OBJECTIVE: Determine transplant squash and tomato response to herbicides applied overtop of plastic and prior to planting.

VISUAL INJURY (Tomato and Squash):

1. Valor: When not washed off, Valor smoked tomato and squash. However, when washed off no injury was noted.
2. WeatherMax: When not washed off, WeatherMax stunted tomato and squash growth 10 to 38% during early season. No injury was noted when washed off.
3. Aim: Injury tended to be a little higher when not washed off but injury only ranged from 0-12% regardless of washing off or not.
4. Gramoxone: Severe tomato and squash injury were noted when not washed off; however, if washed off injury was not observed.
5. Sandea: In tomato, stunting was 18 to 24% when not washed off but only 0-6% when washed off. In squash, stunting was up to 48% when washed off and up to 88% when not washed off.

PLANT HEIGHTS (Tomato and squash):

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1. At 14 and 28 DAT, squash heights were reduced only by Sandea when herbicides were washed from the plastic. If herbicides were not washed from the plastic all products except Aim and WeatherMax reduced plant heights.
2. At 48 DAT, squash was trying to recover but injury trends followed those noted at 14 and 28 d after transplanting.
3. At 14 DAT, tomato heights were negatively impacted by only Valor and Gramoxone when not washed off.
4. At 48 DAT, tomato heights werenot affected when herbicides were washed from plastic. When not washed from plastic, Gramoxone, WeatherMax, and Valor reduced plant heights. Only Aim and Sandea had no negative effect.

SQUASH HARVEST (15 times):

- 1) Individual harvest data is included but not discussed.
- 2) When pooling the first 5 harvest, the number and weight of fruit harvested were reduced by only Sandea when herbicides were washed from the plastic when compared to the control.
- 3) When pooling the first 5 harvest, the number and weight of fruit harvested were reduced by all treatments except Aim when herbicides were not washed from the plastic when compared to the control.
- 4) Total fruit harvested followed identical trends to that noted when pooling the 1st five harvest dates, EXCEPT yields from the WeatherMax treated plots caught up producing more late-season fruit.

TOMATO HARVEST (Once over):

1. No treatment when washed off impacted the number or weight of Jumbo, Large, Medium, Small, Extra Small, or total fruit.
2. When not washed off, only Aim and WeatherMax had no negative impact on number or weight of Jumbo, Large, Medium, Small, Extra Small, or total. A trend for WeatherMax reducing Jumbo fruit and increasing largefruit was noticed.

CONCLUSIONS:

1. Trial needs to be repeated prior to any of this information reaching the grower.

GENERAL COMMENTS:

1. Applied Telone C35 at 22 GPA on July 15.
2. Laid plastic on July 28.
3. Sprayed wash off treatments on Aug 4. Washed off with 0.5 inch that day.
4. Sprayed non-wash off on August 6, transplanted, and then within 2 hours it rain 0.5 inch. Agressive rain storm.
5. I believe this is a absolute worst case situation.