

University of Georgia

Watermelon tolerance to Sandea, Reflex, Alanap, and Sinbar prior to transplant.

Trial ID: Veg19-03
Location: RDC

Study Dir.:
Investigator: Stanley Culpepper

GENERAL TRIAL INFORMATION

Study Director: Stanley 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: Tifton **Trial Status:** completed
State/Prov.: Ga **Trial Reliability:** good
Postal Code: 31794 **Initiation Date:** Apr-02-03
Country: U.S.A.

Conducted Under GLP (Y/N): N

Conducted Under GEP (Y/N): N

Crop 1: CITLA watermelon **Variety:** AU Producer
Planting Date: Apr-09-03 **Planting Method:** transplant
Rate: 1 4 foot **Depth:** 1 in
Row Spacing: 6 foot **Spacing Within Row:** 4 feet **Seed Bed:** bedded
Soil Temperature: 76 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: conventional **Study Design:** SPLIT-PLOT

SOIL DESCRIPTION

% Sand: 88 **% OM:** 1.1 **Texture:** sand
% Silt: 10 **pH:** 5.9 **Soil Name:** Tifton sandy loam
% Clay: 2 **CEC:** 0.

APPLICATION DESCRIPTION

	A	B
Application Date:	Apr-02-03	Apr-09-03
Time of Day:	10:00am	7:00am
Application Method:	Broadcast	Broadcast
Application Timing:	7 d prior	0 d prior
Applic. Placement:	underplas	underplas
Air Temp., Unit:	76 F	66 F
% Relative Humidity:	25	49
Wind Velocity, Unit:	1 mph	1 mph
Dew Presence (Y/N):	N	N
Soil Temp., Unit:	74 F	68 F
Soil Moisture:	fair	wet
% Cloud Cover:	0	100

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	CITLA prior	CITLA prior
Stage Scale:	.	.
Height, Unit:	0. .	0. .

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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
Nozzles/Row:	4	4
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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Crop Code		CITLA stunting percent	CITLA stunting percent	CITLA stunting percent
Rating Data Type		May-03-03	May-29-03	Jun-18-03
Rating Unit				
Rating Date				
Trt-Eval Interval		31 DA-A		
Trt No.	Treatment Name	Rate	Unit	
		1	2	3
1	Non-treated 7 d prior to transplant	0.0	0.0	0.0
2	Non-treated 2-4 hr prior to transplan	0.0	0.0	0.0
3	Sandea 7 d prior to transplant	0.75	oz/a	21.3
4	Sandea 2-4 hr prior to transplan	0.75	oz/a	17.0
5	Sandea 7 d prior to transplant	1.5	oz/a	10.5
6	Sandea 2-4 hr prior to transplan	1.5	oz/a	27.5
7	Reflex 7 d prior to transplant	1	pt/a	14.8
8	Reflex 2-4 hr prior to transplan	1	pt/a	19.3
9	Alanap 7 d prior to transplant	5	qt/a	40.0
10	Alanap 2-4 hr prior to transplan	5	qt/a	21.0
11	Sinbar 7 d prior to transplant	1.5	oz/a	0.0
12	Sinbar 2-4 hr prior to transplan	1.5	oz/a	0.0
LSD (P=.05)		10.45		4.65
Standard Deviation		7.24		3.22
CV		49.79		28.69
Bartlett's X2		15.203		7.15
P(Bartlett's X2)		0.086		0.21

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

Trial Comments

GENERAL COMMENTS: Telone was applied over entire trial. Plots were destroyed late in the season due to disease infestation (gummy stem kicked butt). Plant death was so erratic late in the season the trial was not harvested.

Visual Injury:

- 1) Injury from Sandea ranged from 21 to 41% at 3 WAT. Applying 2 to 4 hrs prior to transplant was generally more injurious than applying 7 days ahead of transplant. Additionally, there was a rate response.
- 2) Injury from Sandea remained throughout the season.
- 3) Injury from other herbicides was less than 13% and transient.

CONCLUSION:

- 1) A study needs to be conducted on bare ground with treatments containing rainfall or no rainfall occurring after the Sandea application and prior to transplanting.