

# University of Georgia

Pepper response to Dual, Sandea, and sulfentrazone.

Trial ID: Veg15-03  
Location: Ponder farm

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:** TyTY **Trial Status:** completed  
**State/Prov.:** Ga **Trial Reliability:** excellent  
**Country:** 31794 **Initiation Date:** Mar-25-03

Conducted Under GLP (Y/N): N

Conducted Under GEP (Y/N): N

**Crop 1:** CPSAN pepper **Variety:** Stellito  
**Planting Date:** Mar-28-03 **Planting Method:** transplant  
**Rate:** 1 per foot **Depth:** 2 in  
**Row Spacing:** 18 inch **Spacing Within Row:** 12 inch  
**Soil Temperature:** 74 F **Soil Moisture:** drip

## SITE AND DESIGN

**Plot Width, Unit:** 6 FT **Plot Length, Unit:** 25 FT **Reps:** 3  
**Site Type:** Research Station  
**Tillage Type:** Conventional **Study Design:** RANDOMIZED COMPLETE BLOCK

## SOIL DESCRIPTION

**% Sand:** 94 **% OM:** 1.3 **Texture:** sand  
**% Silt:** 2 **pH:** 5.9 **Soil Name:** Tifton Sandy Loam  
**% Clay:** 4

## APPLICATION DESCRIPTION

	A
<b>Application Date:</b>	Mar-28-03
<b>Time of Day:</b>	10:00am
<b>Application Method:</b>	Broadcast
<b>Application Timing:</b>	und. plas
<b>Applic. Placement:</b>	PRE
<b>Air Temp., Unit:</b>	76 F
<b>% Relative Humidity:</b>	52
<b>Wind Velocity, Unit:</b>	3 mph
<b>Dew Presence (Y/N):</b>	n
<b>Soil Temp., Unit:</b>	74 F
<b>Soil Moisture:</b>	moist
<b>% Cloud Cover:</b>	0

## CROP STAGE AT EACH APPLICATION

	A
<b>Crop 1 Code, Stage:</b>	CPSAN before
<b>Stage Scale:</b>	transplan
<b>Height, Unit:</b>	0. .

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## APPLICATION EQUIPMENT

	<b>A</b>
<b>Appl. Equipment:</b>	super bed
<b>Operating Pressure:</b>	29
<b>Nozzle Type:</b>	flat fan
<b>Nozzle Size:</b>	11002
<b>Nozzle Spacing, Unit:</b>	12 inch
<b>Nozzles/Row:</b>	6
<b>Boom Length, Unit:</b>	6 feet
<b>Boom Height, Unit:</b>	12 inch
<b>Ground Speed, Unit:</b>	3 mph
<b>Carrier:</b>	water
<b>Spray Volume, Unit:</b>	25 GPA
<b>Propellant:</b>	CO2
<b>Tank Mix (Y/N):</b>	Y

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**Pepper response to Dual, Sandea, and sulfentrazone.**

Trial ID: Veg15-03

Study Dir.:

Location: Ponder farm

Investigator: Stanley Culpepper

Weed Code	CPSAN	CPSAN	Plant 1	Plant 2	Plant 3	Plant 4	Plant 5	Plant 6		
Crop Code	stunting	injury	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN		
Rating Data Type	percent	percent	height	height	height	height	height	height		
Rating Unit			cm	cm	cm	cm	cm	cm		
Rating Date	May-03-03	May-14-03	May-07-03	May-07-03	May-07-03	May-07-03	May-07-03	May-07-03		
Trt-Eval Interval	39 DA-A	47 DA-A	43 DA-A	43 DA-A	43 DA-A	43 DA-A	43 DA-A	43 DA-A		
ARM Action Codes										
Trt No.	Treatment	Rate	1	2	3	4	5	6	7	8
1	Command Dual	1.5 pt/a 1 pt/a	0.0	3.3	17.3	16.0	18.0	16.3	18.0	20.0
2	Sandea Devrinol	0.33 oz/a 4 lb/a	0.0	0.0	16.3	15.3	14.7	15.7	17.0	17.3
3	Sulfentrazone	0.15 lb ai/a	4.0	6.7	14.7	17.7	15.7	14.3	18.3	15.3
4	Command Dual Sandea Devrinol	1.5 pt/a 1 pt/a 0.33 oz/a 4 lb/a	8.3	14.0	13.7	17.0	15.3	15.7	14.7	17.3
5	Command Dual Sulfentrazone	1.5 pt/a 1 pt/a 0.15 lb ai/a	5.0	5.7	16.3	15.0	19.3	13.3	18.0	14.7
6	Sandea Devrinol Sulfentrazone	0.33 oz/a 4 lb/a 0.15 lb ai/a	6.7	5.7	15.0	14.3	15.3	16.3	14.7	15.3
7	Command Dual Sandea Devrinol Sulfentrazone	1.5 pt/a 1 pt/a 0.33 oz/a 4 lb/a 0.15 lb/a	1.7	7.3	16.3	17.3	16.3	15.3	18.0	16.7
8	Non-treated		0.0	0.0	14.7	17.3	16.7	18.3	18.0	19.0
LSD (P=.05)			9.98	10.16	4.50	3.23	4.65	4.80	4.44	3.61
Standard Deviation			5.70	5.80	2.57	1.84	2.65	2.74	2.53	2.06
CV			177.58	108.78	16.52	11.35	16.16	17.48	14.83	12.15
Bartlett's X2			2.86	5.539	10.059	3.469	1.405	1.879	9.46	2.731
P(Bartlett's X2)			0.581	0.354	0.185	0.839	0.985	0.966	0.221	0.909

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

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Weed Code	Plant 7	Plant 8	Plant 9	Plant 10	Plant 11	Plant 12	Plant 13	Plant 14			
Crop Code	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN			
Rating Data Type	height	height	height	height	height	height	height	height			
Rating Unit	cm	cm	cm	cm	cm	cm	cm	cm			
Rating Date	May-07-03	May-07-03	May-07-03	May-07-03	May-07-03	May-07-03	May-07-03	May-07-03			
Trt-Eval Interval	43 DA-A	43 DA-A	43 DA-A	43 DA-A	43 DA-A	43 DA-A	43 DA-A	43 DA-A			
ARM Action Codes											
Trt No.	Treatment Name	Rate	Unit	9	10	11	12	13	14	15	16
1	Command Dual	1.5	pt/a	16.7	19.0	15.0	17.0	16.0	17.3	16.7	16.7
2	Sandea Devrinol	0.33	oz/a	17.3	14.3	15.3	15.0	14.0	18.0	15.0	17.3
3	Sulfentrazone	0.15	lb ai/a	14.7	16.7	17.3	16.3	18.3	16.0	17.3	16.7
4	Command Dual Sandea Devrinol	1.5	pt/a	13.7	14.3	15.0	16.7	15.0	16.3	14.7	17.3
5	Command Dual Sulfentrazone	1.5	pt/a	16.3	16.0	16.3	15.0	16.3	16.7	16.3	18.0
6	Sandea Devrinol Sulfentrazone	0.33	oz/a	15.7	16.3	13.7	17.7	16.3	17.3	16.7	16.3
7	Command Dual Sandea Devrinol Sulfentrazone	1.5	pt/a	14.7	16.0	14.3	17.7	14.3	17.0	17.0	18.0
8	Non-treated			16.7	18.7	15.3	15.7	16.7	13.7	17.0	15.0
LSD (P=.05)				3.46	4.36	6.40	3.46	3.70	4.93	4.86	6.07
Standard Deviation				1.98	2.49	3.65	1.97	2.11	2.81	2.77	3.47
CV				12.59	15.16	23.89	12.06	13.29	17.0	16.99	20.49
Bartlett's X2				7.458	4.638	3.173	7.488	5.58	3.586	3.058	3.115
P(Bartlett's X2)				0.383	0.704	0.869	0.38	0.59	0.826	0.88	0.874

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

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Weed Code	Plant 15	Plant 16	Plant 17	Plant 18	Plant 19	Plant 20	AVG.			
Crop Code	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN	CPSAN			
Rating Data Type	height	height	height	height	height	height	height			
Rating Unit	cm	cm	cm	cm	cm	cm	cm			
Rating Date	May-07-03	May-07-03	May-07-03	May-07-03	May-07-03	May-07-03	May-07-03			
Trt-Eval Interval	43 DA-A	43 DA-A	43 DA-A	43 DA-A	43 DA-A	43 DA-A	40 DA-A			
ARM Action Codes							T1			
Trt No.	Treatment Name	Rate	Unit	17	18	19	20	21	22	23
1	Command Dual	1.5	pt/a	18.0	17.3	16.7	18.7	14.7	18.0	17.2
2	Sandea Devrinol	0.33	oz/a	16.0	15.0	16.7	17.3	14.0	14.3	15.8
3	Sulfentrazone	0.15	lb ai/a	15.0	17.7	16.3	17.0	16.3	18.7	16.5
4	Command Dual Sandea Devrinol	1.5	pt/a	16.7	18.7	16.0	17.0	15.3	18.3	15.9
5	Command Dual Sulfentrazone	1.5	pt/a	16.0	16.7	17.7	15.7	17.3	15.3	16.3
6	Sandea Devrinol Sulfentrazone	0.33	oz/a	17.0	16.3	18.0	15.7	16.0	17.0	16.1
7	Command Dual Sandea Devrinol Sulfentrazone	1.5	pt/a	17.7	18.7	17.3	17.3	18.3	17.3	16.8
8	Non-treated			13.7	17.3	18.0	18.7	19.0	18.0	16.9
LSD (P=.05)				4.49	4.90	4.95	5.36	5.40	5.00	2.08
Standard Deviation				2.56	2.80	2.83	3.06	3.08	2.85	1.19
CV				15.78	16.26	16.54	17.81	18.83	16.67	7.22
Bartlett's X2				9.822	2.228	7.478	4.083	7.604	2.879	4.019
P(Bartlett's X2)				0.199	0.946	0.381	0.77	0.369	0.896	0.778

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

Column 23: T1 = @AVG([C3].[C22])

### Trial Comments

OBJECTIVE: Evaluate several potential herbicide systems for pepper.

#### CROP RESPONSE:

Visual estimates:

1) injury was relatively insignificant and suggest that sulfentrazone at 0.15 and Sandea at 0.33 oz/A could be additional tank mix tools to build a program to control nutsedge with the impending loss of methyl bromide.

Pepper heights:

1) Pepper heights were not affected at 38 days after transplanting.

Trial was not harvested due to lack of time.

#### GENERAL COMMENTS:

1) Telone C-35 applied 2 wk prior to planting to control nematodes and diseases.