

University of Georgia

Pepper response to Eptam and Dual Magnum.

Trial ID: Veg4-09
Location: Ponder Farm

Study Dir.: Stanley Culpepper
Investigator: Stanley Culpepper

Use 3 liters(s) per treatment mixture to spray 25 gal/ac

Plots: 6 by 20 feet

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Amt to Measure	Product	Plot No.	By Rep	Rep	4
1	Pic Chlor 60 @ 21 G No herbicide No Dual POST					preplant POST				103	203	306	406
2	Pic Chlor 60 @ 21 G No herbicide Dual Magnum	7.64	L	12	oz/a	preplant POST	B	11.25 ml/mx		106	206	303	403
3	Pic Chlor 60 @ 21 G Eptam No Dual POST	7	E	3	pt/a	preplant POST	A	45.0 ml/mx		101	201	304	404
4	Pic Chlor 60 @ 21 G Eptam Dual Magnum	7 7.64	E L	3 12	pt/a oz/a	preplant POST	A B	45.0 ml/mx 11.25 ml/mx		104	204	301	401
5	Pic Chlor 60 @ 21 G Eptam Dual Magnum No Dual POST	7 7.64	E L	3 12	pt/a oz/a	preplant preplant	A A	45.0 ml/mx 11.25 ml/mx		102	202	305	405
6	Pic Chlor 60 @ 21 G Eptam Dual Magnum Dual Magnum	7 7.64 7.64	E L L	3 12 12	pt/a oz/a oz/a	preplant preplant POST	A A B	45.0 ml/mx 11.25 ml/mx 11.25 ml/mx		105	205	302	402

Sort Order: Treatment

Trial Comments

OBJECTIVE: Determine transplant pepper response to Eptam/Dual herbicide systems.

NOTE: PIC Chlor 60 at 21 G/A and LDPE mulch was implemented across the entire trial.

PEPPER RESPONSE:

1. Pepper were planted 26 d after fumigation and preplant herbicide applications.
2. Injury was less than 6% with all treatments, even combinations of Eptam plus Dual.
3. Dual POST applications were applied 5 d after transplant. No leaf injury or plant growth was impacted by these applications.

PEPPER YIELD:

1. Jumbo pepper fruit were harvested four times.
2. Treatments did not impact individual harvests or cumulative harvest.

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Weed Code

Crop Code

Rating Data Type

Rating Unit

Rating Date

ARM Action Codes

CPSAN

injury

%

3/24/2009

CPSAN

injury

%

3/31/2009

CPSAN

injury

%

4/27/2009

CPSAN

HARVEST 1

#/PLOT

6/10/2009

CPSAN

HARVEST 1

WT/LBS

6/10/2009

CPSAN

HARVEST 2

#/PLOT

6/18/2009

CPSAN

HARVEST 2

WT/LBS

6/18/2009

Trt No.	Treatment Name	Rate	Unit	1	2	3	4	5	6	7	8						
1	Pic Chlor 60 @ 21 G No herbicide No Dual POST			0.0	c	0.0	a	0.0	a	5.8	a	3.83	a	12.5	a	6.20	a
2	Pic Chlor 60 @ 21 G No herbicide Dual Magnum	12	oz/a	1.5	bc	0.0	a	0.0	a	8.5	a	5.13	a	18.3	a	8.90	a
3	Pic Chlor 60 @ 21 G Eptam No Dual POST	3	pt/a	3.8	abc	0.0	a	0.0	a	9.5	a	5.33	a	14.8	a	7.58	a
4	Pic Chlor 60 @ 21 G Eptam Dual Magnum	3 12	pt/a oz/a	1.3	bc	0.0	a	0.0	a	5.3	a	2.75	a	12.3	a	6.05	a
5	Pic Chlor 60 @ 21 G Eptam Dual Magnum No Dual POST	3 12	pt/a oz/a	6.3	a	0.0	a	0.0	a	4.3	a	2.80	a	13.8	a	7.13	a
6	Pic Chlor 60 @ 21 G Eptam Dual Magnum Dual Magnum	3 12 12	pt/a oz/a oz/a	5.0	ab	0.0	a	0.0	a	2.3	a	1.08	a	11.8	a	5.15	a
LSD (P=.05)				3.82		0.00		0.00	.	4.67		3.057		12.13		6.910	
Standard Deviation				2.39		0.00		0.00	.	2.92		1.911		7.59		4.320	
CV				80.76		0.0		0.0	.	49.36		54.86		54.67		63.22	
Bartlett's X2				7.371		0.0		0.0	.	9.092		9.682		8.182		11.332	
P(Bartlett's X2)				0.118		.		.	.	0.105		0.085		0.146		0.045*	
Replicate F				13.360		0.000		0.000		4.489		5.258		8.422		5.945	
Replicate Prob(F)				0.0012		1.0000		1.0000		0.0345		0.0228		0.0056		0.0161	
Treatment F				4.124		0.000		0.000		3.397		2.850		0.403		0.375	
Treatment Prob(F)				0.0317		1.0000		1.0000		0.0533		0.0819		0.8354		0.8536	

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

Mean separations are based on the complete error term.

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Weed Code											
Crop Code											
Rating Data Type		CPSAN	CPSAN	CSPAN	CPSAN			TOTAL	TOTAL		
Rating Unit		HARVEST 3	HARVEST 3	HARVEST 4	HARVEST 4			CSPAN	CSPAN		
Rating Date		#/PLOT	WT/LBS	#/PLOT	WT/LBS			HARV 1-4	HARV 1-4		
ARM Action Codes		6/24/2009	6/24/2009	7/1/2009	7/1/2009			#/PLOT	WT/LBS		
								7/1/2009	7/1/2009		
								T1	T2		

Trt No.	Treatment Name	Rate	Rate Unit	9	10	11	12	13	14	15	
1	Pic Chlor 60 @ 21 G No herbicide No Dual POST			18.3	a 8.30	a 41.0	a 16.10	a	77.5	a 34.43	a
2	Pic Chlor 60 @ 21 G No herbicide Dual Magnum	12	oz/a	17.8	a 8.00	a 35.0	a 13.73	a	79.5	a 35.75	a
3	Pic Chlor 60 @ 21 G Eptam No Dual POST	3	pt/a	24.0	a 9.68	a 37.0	a 14.43	a	85.3	a 37.00	a
4	Pic Chlor 60 @ 21 G Eptam Dual Magnum	3 12	pt/a oz/a	25.0	a 10.25	a 36.3	a 14.23	a	78.8	a 33.28	a
5	Pic Chlor 60 @ 21 G Eptam Dual Magnum No Dual POST	3 12	pt/a oz/a	22.8	a 9.55	a 33.8	a 12.53	a	74.5	a 32.00	a
6	Pic Chlor 60 @ 21 G Eptam Dual Magnum Dual Magnum	3 12 12	pt/a oz/a oz/a	25.8	a 10.83	a 41.3	a 16.43	a	81.0	a 33.48	a
LSD (P=.05)				9.85	4.526	15.47	6.617	.	26.89	13.955	
Standard Deviation				6.16	2.830	9.67	4.137	.	16.81	8.724	
CV				27.68	30.0	25.88	28.39	.	21.17	25.42	
Bartlett's X2				3.142	4.612	4.534	3.882	.	8.577	8.723	
P(Bartlett's X2)				0.678	0.465	0.475	0.567	.	0.127	0.121	
Replicate F				0.382	0.473	2.851	1.982		0.817	1.083	
Replicate Prob(F)				0.7684	0.7088	0.0973	0.1873		0.5161	0.4047	
Treatment F				1.252	0.601	0.413	0.506		0.184	0.173	
Treatment Prob(F)				0.3618	0.7016	0.8283	0.7658		0.9617	0.9663	

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Location: Ponder Farm

Study Dir.: Stanley Culpepper
Investigator: Stanley Culpepper

GENERAL TRIAL INFORMATION

Study Director: Stanley Culpepper Affiliation: Univ. of Georgia Postal Code: 31795 Investigator: Stanley Culpepper Affiliation: Univ. of Georgia Postal Code: 31795	Title: Ext. Weed Science Title: Ext. Weed Science
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TRIAL LOCATION

City: TyTy State/Prov.: GA Postal Code: 31794 Country: USA	Trial Status: completed Trial Reliability: good Initiation Date: 2/17/2009
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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: CPSAN PEPPER (TRANSPLANTS) Planting Date: 3/12/2009 Rate: 1 ft Row Spacing: 15 IN Soil Temperature: 78 F	Variety: ARISTOTLE Planting Method: TRANSPLANT Depth: 2 in Spacing Within Row: 12 IN Soil Moisture: MOIST Seed Bed: raised, mulch Emergence Date: 3/12/2009
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SITE AND DESIGN

Plot Width, Unit: 6 FT Site Type: Ponder research farm Tillage Type: conventional	Plot Length, Unit: 20 FT Study Design: SPLIT-PLOT	Reps: 4
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SOIL DESCRIPTION

% Sand: 90 % Silt: 4 % Clay: 6	% OM: 1.3 pH: 6.4	Texture: Tifton sandy loam
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Overall Moisture Conditions: drip irrigation

Closest Weather Station: Ponder Research Farm

Distance: 100 **Unit:** yd

APPLICATION DESCRIPTION

	A	B
Application Date:	2/17/2009	3/18/2009
Time of Day:	8:00 AM	2:00 PM
Application Method:	BAND	BROADCAST
Application Timing:	PREPLANT	POST
Applic. Placement:	soil surf	OVERTOP
Air Temp., Unit:	45 F	77 F
% Relative Humidity:	65	55
Wind Velocity, Unit:	0 MPH	3 MPH
Dew Presence (Y/N):	N	N
Soil Temp., Unit:	50 F	84 F
Soil Moisture:	WET	MOIST
% Cloud Cover:	0	0

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	CPSAN .	CPSAN .
Stage Scale:	preplant	6-7 LF
Height, Unit:	0 in	4 IN

WEED STAGE AT EACH APPLICATION

	A	B
Weed 1 Code, Stage:	. .	.
Stage Scale:	.	.
Density, Unit:	. .	.

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APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	SUPER BED	BACKPACK
Operating Pressure:	26 PSI	24 PSI
Nozzle Type:	FLAT FAN	FLAT FAN
Nozzle Size:	110015	11002
Nozzle Spacing, Unit:	8 IN	8 IN
Nozzles/Row:	5	2
Boom Length, Unit:	5 FT	4.5 FT
Boom Height, Unit:	8 IN	15 IN
Ground Speed, Unit:	3 MPH	3 MPH
Carrier:	water	water
Spray Volume, Unit:	25 GPA	15 GPA
Propellant:	CO2	CO2
Tank Mix (Y/N):	Y	Y