University of Georgia

Comparing paraquat formulations in vegetable row middles.

Trial ID: Veg52-06 Study Dir.: Stanley Culpepper
Location: LTF Investigator: Stanley Culpepper

Reps: 4 Plots: 6 by 30 feet
Spray vol: 14.8 gal/ac Mix size: 1 liters (min .92602)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Amt Product to Measure	Plot No. By Rep 1	2	3	4
1	Firestorm	3		L	1	LB A/A	RM	A	22.52 ml/mx	101	205	304	403
	NIS			L	0.25	% V/V	RM	A	2.5 ml/mx				
2	Gramoxone Max	3		L	1	LB A/A	RM	A	22.52 ml/mx	102	204	302	404
	NIS			L	0.25	% V/V	RM	A	2.5 ml/mx				
3	Gramoxone Inteon	2		L	1	LB A/A	RM	A	33.78 ml/mx	103	202	301	405
	NIS			L	0.25	% V/V	RM	A	2.5 ml/mx				
4	Non-treated									104	201	303	401
5	Firestorm	3		L	1	LB A/A	RM	A	22.52 ml/mx	105	203	305	402
	NIS			L	0.25	% V/V	RM	A	2.5 ml/mx				
	Sandea	75		DF	0.75	OZ/A	RM	A	0.3795 g/mx				

Sort Order: Treatment

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

Amount*	Unit	Treatment Name	Form Conc	Form Type	Lot Code
56.300	ml	Firestorm	3	L	
12.499	ml	NIS		L	
28.150	ml	Gramoxone Max	3	L	
42.225	ml	Gramoxone Inteon	2	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: Compare paraquat formulations for weed control and pepper drift response.

VISUAL PEPPER INJURY:
1. Hoods were not used so some injury would be detected.
2. Injury was similar among all paraquat formulations. The addition of Sandea with Firestorm did not enhance injury.

WEED RESPONSE (no weeds were present in rep 4):

Pink Purslane:
1. Control was similar and excellent throughout the season.

Livid amaranth:
1. Control was similar and excellent throughout the season.

University of Georgia

Comparing paraquat formulations in vegetable row middles.

Trial ID: Veg52-06 Study Dir.: Stanley Culpepper
Location: LTF Investigator: Stanley Culpepper

Trt No.	Treatment Name	Rate	Rate Unit	1	2	3	4	5	6	7	8
Weed Code				PORPI	PORPI	PORPI	AMALI	AMALI	AMALI		
Crop Code										CPSAN	CPSAN
Rating Data Type				control	control	control	control	control	control	injury	injury
Rating Unit				%	%	%	%	%	%	%	%
Rating Date				Aug-15-06	Aug-20-06	Sep-01-06	Aug-15-06	Aug-20-06	Sep-01-06	Aug-15-06	Sep-01-06
Trt-Eval Interval				3 DA-A	8 DA-A	20 DA-A	3 DA-A	8 DA-A	20 DA-A	3 DA-A	20 DA-A
1	Firestorm	1	LB A/A	93 a	91 a	92 b	99 a	89 a	97 a	13 a	3 a
	NIS	0.25	% V/V								
2	Gramoxone Max	1	LB A/A	93 a	91 a	93 ab	99 a	89 a	97 a	10 a	0 a
	NIS	0.25	% V/V								
3	Gramoxone Inteon	1	LB A/A	93 a	91 a	93 ab	99 a	89 a	97 a	15 a	0 a
	NIS	0.25	% V/V								
4	Non-treated			0 b	0 b	0 c	0 b	0 b	0 b	1 b	0 a
5	Firestorm	1	LB A/A	93 a	96 a	97 a	99 a	93 a	98 a	11 a	2 a
	NIS	0.25	% V/V								
	Sandea	0.75	OZ/A								
LSD (P=.05)				4.0	9.8	3.7	0.0	8.4	1.9	7.3	4.6
Standard Deviation				2.1	5.2	2.0	0.0	4.5	1.0	4.8	3.0
CV				2.83	7.04	2.6	0.0	6.24	1.32	47.65	330.86
Bartlett's X2				0.0	0.011	0.748	0.0	1.943	0.0	4.265	0.143
P(Bartlett's X2)				1.00	0.995	0.862	.	0.584	1.00	0.371	0.705

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

University of Georgia

Comparing paraquat formulations in vegetable row middles.

Trial ID: Veg52-06 Study Dir.: Stanley Culpepper
Location: LTF Investigator: Stanley Culpepper

GENERAL TRIAL INFORMATION

Study Director: Stanley Culpepper **Title:** Ext. Weed Science
Affiliation: Univ. of Georgia
Postal Code: 31794

Investigator: Stanley Culpepper **Title:** Ext. Weed Science
Affiliation: Univ. of Georgia
Postal Code: 31794

TRIAL LOCATION

City: TyTy **Trial Status:** completed
State/Prov.: GA **Trial Reliability:** excellent
Postal Code: 31794 **Initiation Date:** Aug-06-06
Country: USA **Planned Completion Date:** _____
E-Longitude of LL Corner °: _____ **N-Latitude of LL Corner °:** _____
Altitude of LL Corner: _____ **Unit:** _____ **Angle y-axis to North °:** _____
Directions:

COOPERATOR/LANDOWNER

Cooperator: _____ **Country:** _____
Org: _____ **Phone No:** _____
Address 1: _____ **Fax No:** _____
Address 2: _____
City: _____
State/Prov: _____
Postal Code: _____

Conducted Under GLP (Y/N): N **Conducted Under GEP (Y/N):** N
Guidelines: _____ **Guideline Description:** _____

Objective:

Conclusions:

CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	PORPI	pink purslane	
2.	AMALI	livid amaranth	

Crop 1: CPSAN bell pepper **Variety:** Stelleto
Planting Date: Aug-06-06 **Planting Method:** transplant
Rate: 1 ft **Depth:** 1 in **Perennial Age:** ____ _____
Row Spacing: 15 inch **Spacing Within Row:** 12 inch **Seed Bed:** mulched
Soil Temperature: 94 F **Soil Moisture:** drip **Emergence Date:** _____

SITE AND DESIGN

Plot Width, Unit: 6 FT **Plot Length, Unit:** 30 FT **Reps:** 4
Site Type: LTF
Tillage Type: plasticulture **Study Design:** RANDOMIZED COMPLETE BLOCK

Trial Initiation Comments:

	Previous Crops	Previous Pesticides	Year
1.			

University of Georgia

MAINTENANCE

Field Prep./Maintenance:

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

SOIL DESCRIPTION

% Sand: 0. **% OM:** 0. **Texture:** .
% Silt: 0. **pH:** 0. **Soil Name:** _____
% Clay: 0. **CEC:** _____ **Fert. Level:** _____

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

MOISTURE CONDITIONS

	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

Overall Moisture Conditions: row middles: fair moisture
Closest Weather Station: _____ **Distance:** _____ **Unit:** __

APPLICATION DESCRIPTION

	A
Application Date:	Aug-12-06
Time of Day:	9 am
Application Method:	banded
Application Timing:	RM
Applic. Placement:	row middl
Air Temp., Unit:	81 F
% Relative Humidity:	70
Wind Velocity, Unit:	2 mph
Dew Presence (Y/N):	n
Water Hardness:	
Soil Temp., Unit:	85 F
Soil Moisture:	moist
% Cloud Cover:	0

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	CPSAN RM
Stage Scale:	4-5 leaf
Height, Unit:	6 inch

WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	PORPI RM
Stage Scale:	2-3 inch
Density, Unit:	20 ydsq
Weed 2 Code, Stage:	AMALI RM
Stage Scale:	1-2 inch
Density, Unit:	8 ydsq

University of Georgia

APPLICATION EQUIPMENT

	A
Appl. Equipment:	backpack
Operating Pressure:	18
Nozzle Type:	TK 2
Nozzle Size:	floodjet
Nozzle Spacing, Unit:	24 inch
Nozzles/Row:	1
Band Width, Unit:	
Boom Length, Unit:	
Boom Height, Unit:	15 inch
Ground Speed, Unit:	3 mph
Incorporation Equip.:	
Hours to Incorp.:	
Incorp. Depth, Unit:	
Carrier:	water
Spray Volume, Unit:	14.8 GPA
Spray pH:	
Propellant:	CO2
Tank Mix (Y/N):	Y

Trt No	Treatment Application Comment