University of Georgia

Greens and broccoli response to high simulated drift rates of dicamba & 24-D.

Trial ID: Veg45-14 Study Dir.: Stanley Culpepper
Location: LTF Investigator: Stanley Culpepper

Use 1.5 liters(s) per treatment mixture to spray 14.8 gal/ac
Plots: 6 by 30 feet

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Amt Product to Measure	Plot No. By Rep 1	2	3	4
1	Clarity (1/20X)	4	L	0.8	oz/a	POST	A	0.6334 ml/mx	101	203	301	406
2	Clarity (1/50X)	4	L	0.32	oz/a	POST	A	0.2534 ml/mx	102	206	305	404
3	Clarity (1/80X)	4	L	0.2	oz/a	POST	A	0.1583 ml/mx	103	202	306	401
4	Weedar (1/20X)	3.8	L	1.6	oz/a	POST	A	1.267 ml/mx	104	207	302	405
5	Weedar (1/50X)	3.8	L	0.64	oz/a	POST	A	0.5067 ml/mx	105	201	304	407
6	Weedar (1/80X)	3.8	L	0.4	oz/a	POST	A	0.3167 ml/mx	106	205	307	403
7	NT								107	204	303	402

Sort Order: Treatment

Trial Comments

OBJECTIVE: Determine mustard green and broccoli tolerance to simulated drift rates of 2,4-D and dicamba?

MUSTARD GREENS:
VISUAL INJURY:
1. Greens were more sensitive to 2,4-D than dicamba.
2.2,4-D at 1/20X, 1/50X, and 1/80X rates caused up to 24, 19, and 16% epinasty, respectively.
3. Clarity at 1/20X, 1/50X, and 1/80X rate caused up to 13, 5, and 2% epinasty, respectively.

BROCCOLI:
VISUAL INJURY:
1. Injury was less than 8% with any rate of either product throughout the study.

GENERAL COMMENTS:
1. 2,4-D applied with AIXR tips with dicamba applied with TTI tips.

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Crop Code				BRSJU		BRSJU		BRSJU		BRSOK		BRSOK		BRSOK	
Rating Data Type				injury		injury		injury		injury		injury		injury	
Rating Unit				percent		percent		percent		percent		percent		percent	
Rating Date				10/22/2014		10/25/2014		11/5/2014		10/22/2014		10/25/2014		11/5/2014	
Trt-Eval Interval				1 DA-A		4 DA-A		15 DA-A		1 DA-A		4 DA-A		15 DA-A	
Trt No.	Treatment Name	Rate	Rate Unit	1		2		3	4	5		6		7	
1	Clarity (1/20X)	0.8	oz/a	5.0	c	8.8	c	12.5	c	0.0	b	7.5	a	7.5	a
2	Clarity (1/50X)	0.32	oz/a	2.5	cd	5.0	d	0.0	d	0.0	b	0.0	b	1.3	b
3	Clarity (1/80X)	0.2	oz/a	0.0	d	2.0	de	0.0	d	0.0	b	0.0	b	0.0	b
4	Weedar (1/20X)	1.6	oz/a	18.8	a	22.0	a	23.8	a	3.5	a	7.5	a	7.5	a
5	Weedar (1/50X)	0.64	oz/a	13.8	b	17.5	b	18.8	b	0.0	b	0.0	b	0.0	b
6	Weedar (1/80X)	0.4	oz/a	11.3	b	16.3	b	11.3	c	0.0	b	0.0	b	0.0	b
7	NT			0.0	d	0.0	e	0.0	d	0.0	b	0.0	b	0.0	b
LSD (P=.05)				3.97		3.38		2.96	.	0.56		2.29		2.34	
Standard Deviation				2.67		2.27		1.99	.	0.38		1.54		1.57	
CV				36.5		22.24		21.05	.	75.59		72.01		67.84	
Bartlett's X2				1.845		1.64		0.092	.	0.0		0.0		0.077	
P(Bartlett's X2)				0.605		0.802		0.993	.	.		1.00		0.962	
Replicate F				0.125		1.005		0.825		1.000		1.000		3.240	
Replicate Prob(F)				0.9441		0.4132		0.4971		0.4155		0.4155		0.0465	
Treatment F				30.167		55.469		96.000		49.000		22.500		20.520	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001		0.0001		0.0001	

Means followed by same letter do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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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:** Good
Postal Code: 31795 **Initiation Date:** 10/1/2014
Country: USA

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

Crop 1: BRSRO MUSTARD, BIRDSRAPE
Planting Date: 10/1/2014 **Planting Method:** seeded
Rate: 10 foot **Depth:** 0.25 IN
Row Spacing: 15 inch **Spacing Within Row:** 0.15 IN **Seed Bed:** flat-conventional
Soil Temperature: 69 F **Soil Moisture:** mosit **Emergence Date:** 10/6/2014

Crop 2: BRSOK BROCCOLI
Planting Date: 10/1/2014 **Planting Method:** transplant
Rate: 1 foot **Depth:** 1.5 IN
Row Spacing: 15 IN **Spacing Within Row:** 12 IN **Seed Bed:** raised bed mulch
Soil Temperature: 69 F **Soil Moisture:** moist

SITE AND DESIGN

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

SOIL DESCRIPTION

Texture: loamy sand

APPLICATION DESCRIPTION

	A
Application Date:	10/21/2014
Time of Day:	11:15 am
Application Method:	broadcast
Application Timing:	POST
Applic. Placement:	overtop
Air Temp., Unit:	74 F
% Relative Humidity:	70
Wind Velocity, Unit:	0 mph
Dew Presence (Y/N):	n
Soil Temp., Unit:	69 F
Soil Moisture:	moist
% Cloud Cover:	0

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	BRSRO
Stage Scale:	7 leaf
Height, Unit:	6 IN
Crop 2 Code, Stage:	BRSOK
Stage Scale:	8 leaf
Height, Unit:	9 IN

APPLICATION EQUIPMENT

	A
Appl. Equipment:	see

Operating Pressure: comments