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Watermelon response to Sandea, Reflex and and Valor applied under mulch.

Trial ID: Veg13-05(melons) Study Dir.: Stanley Culpepper
Location: Ponder 5139 Investigator: Stanley Culpepper

Reps: 3 Plots: 6 by 25 feet
Spray vol: 14.8 gal/ac Mix size: 1 liters (min .57876)

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
1	Non-treated								101	204	305
2	Sandea	75	DF	1	oz/a	PPIUP	A	0.506 g/mx	102	205	303
3	Sandea	75	DF	1	oz/a	PRET	A	0.506 g/mx	103	202	304
4	Reflex	2	L	1.0	pt/a	PPIUP	A	8.445 ml/mx	104	201	302
5	Reflex	2	L	1	pt/a	PRET	A	8.445 ml/mx	105	203	301
6	Valor	51	WDG	2	oz/a	PRET	A	1.012 g/mx	106	206	306

Sort Order: Treatment

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

Amount*	Unit	Treatment Name	Lot Code
1.265	g	Sandea 75 DF	
21.113	ml	Reflex 2 L	
1.265	g	Valor 51 WDG	

* '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.

Trial Comments

OBJECTIVE: Evaluate Sandea, Reflex, and Valor applied under mulch prior to transplant.

Melon Response:
1. Visually at 21 DAP, Valor and Sandea stunted melons 13 to 15%. By 60 DAT, melons were still stunted at least 11%.
2. At 24 and 47 DAP, melon diameters were smaller when treated with Sandea or Valor as compared to the non-treated control.
3. Sandea applied PRE was more injurious than applied PPI which was likely a response to hot spots caused by the mulch layer.

Crowfootgrass Control:
1. The trial was maintained weed free but prior to a Select application grass control was rated.
2. Control was extremely variable. Sandea tended to provide the most suppression followed by Reflex and Valor.

CONCLUSIONS:
1. Sandea and Valor should not be applied under mulch.

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Trt No.	Treatment Name	Rate	Rate Unit	1	2	3	4	5	6	7	8	9
Weed Code												
Crop Code				watermel	watermel	watermel	watermel	watermel	DTTAE	plant 1 watermel	plant 2 watermel	plant 3 watermel
Rating Data Type				injury	injury	injury	injury	injury	control	dt	dt	dt
Rating Unit				percent	percent	percent	percent	percent	percent	cm	cm	cm
Rating Date				Apr-05-05	Apr-15-05	Apr-27-05	May-16-05	May-24-05	May-16-05	Apr-18-05	Apr-18-05	Apr-18-05
Trt-Eval Interval				15 DA-A	25 DA-A	37 DA-A	56 DA-A	64 DA-A	56 DA-A	28 DA-A	28 DA-A	28 DA-A
ARM Action Codes												
# Subsamples, Dec.												
1	Non-treated			0	0	0	0	0	0	14	18	20
2	Sandea	1	oz/a	0	13	18	21	11	73	15	15	13
3	Sandea	1	oz/a	0	15	35	33	13	80	12	13	12
4	Reflex	1.0	pt/a	0	3	3	3	0	58	17	17	18
5	Reflex	1	pt/a	0	7	2	8	3	50	13	16	20
6	Valor	2	oz/a	0	14	33	33	18	47	15	12	13
LSD (P=.05)				0.0	5.5	7.7	10.7	4.4	18.7	6.7	6.5	6.0
Standard Deviation				0.0	3.0	4.2	5.9	2.4	10.3	3.7	3.6	3.3
CV				0.0	34.28	27.91	36.4	31.43	19.99	25.98	23.88	20.65

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

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Weed Code				plant 4	plant 5	Avg5plan	plant 1	plant 2	plant 3	plant 4	plant 5
Crop Code				watermel	watermel	watermel	watermel	watermel	watermel	watermel	watermel
Rating Data Type				dt	dt	dt	dt	dt	dt	dt	dt
Rating Unit				cm	cm	cm	cm	cm	cm	cm	cm
Rating Date				Apr-18-05	Apr-18-05	Apr-18-05	May-11-05	May-11-05	May-11-05	May-11-05	May-11-05
Trt-Eval Interval				28 DA-A	28 DA-A	28 DA-A	51 DA-A	51 DA-A	51 DA-A	51 DA-A	51 DA-A
ARM Action Codes						T1					
# Subsamples, Dec.						1					
Trt No.	Treatment Name	Rate	Rate Unit	10	11	12	13	14	15	16	17
1	Non-treated			20	18	17.7	88	81	78	85	89
2	Sandea	1	oz/a	12	16	14.1	64	64	61	65	72
3	Sandea	1	oz/a	13	13	12.6	57	59	52	68	34
4	Reflex	1.0	pt/a	16	19	17.3	73	66	74	83	79
5	Reflex	1	pt/a	21	20	18.0	65	81	88	80	67
6	Valor	2	oz/a	12	10	12.5	79	63	61	51	51
LSD (P=.05)				3.5	7.7	2.65	33.6	27.4	32.5	31.1	30.5
Standard Deviation				1.9	4.2	1.45	18.5	15.1	17.9	17.1	16.8
CV				12.29	26.49	9.46	25.99	21.81	26.01	23.68	25.67

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

Column 12: T1 = @AVG([C7].[C11])

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Weed Code				Avg5plan
Crop Code				watermel
Rating Data Type				dt
Rating Unit				cm
Rating Date				May-11-05
Trt-Eval Interval				51 DA-A
ARM Action Codes				T2
# Subsamples, Dec.				1
Trt No.	Treatment Name	Rate	Rate Unit	18
1	Non-treated			84.1
2	Sandea	1	oz/a	65.3
3	Sandea	1	oz/a	53.9
4	Reflex	1.0	pt/a	75.1
5	Reflex	1	pt/a	76.4
6	Valor	2	oz/a	60.9
LSD (P=.05)				10.85
Standard Deviation				5.97
CV				8.61

Means followed by same letter do not significantly differ (P=.05, LSD)
Column 18: T2 = @AVG([C13].[C17])

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Trial ID: Veg13-05(melons) Study Dir.: Stanley Culpepper
Location: Ponder 5139 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: 31794 **Initiation Date:** Mar-21-05
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.	DTTAE	crowfootgrass	

Crop 1: CITLA watermelon **Variety:** Millionaire
Planting Date: Mar-24-05 **Planting Method:** transplant
Rate: 1 3 feet **Depth:** 1 in **Perennial Age:** ____ _____
Row Spacing: 12 feet **Spacing Within Row:** 3 feet **Seed Bed:** flat on 15"mulch
Soil Temperature: 75 F **Soil Moisture:** drip **Emergence Date:** _____

SITE AND DESIGN

Plot Width, Unit: 6 FT **Plot Length, Unit:** 25 FT **Reps:** 3
Site Type: research station
Tillage Type: 15 inch mulch **Study Design:** RANDOMIZED COMPLETE BLOCK

Trial Initiation Comments:

	Previous Crops	Previous Pesticides	Year
1.			

MAINTENANCE

Field Prep./Maintenance:

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

SOIL DESCRIPTION

% Sand: 94 **% OM:** 1.1 **Texture:** sand
% Silt: 2 **pH:** 6.4 **Soil Name:** Tifton sandy loam
% Clay: 4 **CEC:** _____ **Fert. Level:** _____

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

MOISTURE CONDITIONS

	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

Overall Moisture Conditions: drip irrigation
Closest Weather Station: _____ **Distance:** _____ **Unit:** __

APPLICATION DESCRIPTION

	A
Application Date:	Mar-21-05
Time of Day:	10 am
Application Method:	broadcast
Application Timing:	PPI/PRE
Applic. Placement:	on soil
Air Temp., Unit:	76 F
% Relative Humidity:	64
Wind Velocity, Unit:	2 mph
Dew Presence (Y/N):	n
Water Hardness:	
Soil Temp., Unit:	67 F
Soil Moisture:	drip
% Cloud Cover:	90

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	CITLA PRE/PPI
Stage Scale:	not plant
Height, Unit:	0 in

WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	DTTAE PRE/PPI
Stage Scale:	not up
Density, Unit:	4 ydsq

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APPLICATION EQUIPMENT

	A
Appl. Equipment:	backpack
Operating Pressure:	23
Nozzle Type:	flat fan
Nozzle Size:	11002
Nozzle Spacing, Unit:	18 inch
Nozzles/Row:	4
Band Width, Unit:	
Boom Length, Unit:	4.5 feet
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