

Herbicide evaluation in transplanted banana peppers - Arlington - 2012
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Location: Arlington Ag Research Station - Horticulture Farm Field 616

Plot Information:

Soil Type: Plano Silt Loam; pH 6.8; OM 3.8%.

Date Planted: 6/6/12

Plant Spacing: 15 inches

Date Harvested: 7/26, 8/1, 8/8

Plot Size-Design: 6' x 20', 3 Reps

Rating Dates: 6/26, 7/11

Application Equipment: CO2 backpack sprayer. GPA 20, PSI 27, MPH 3.3

Nozzle - XR8003VS, Nozzle spacing 18", Height 18".

Incorporation Equipment: N/A

Herbicide Application Data:

Date	6/6/12	7/3/12	
Time	8:00 am	12:40 pm	
Treatment	Pre-trans	Post	
Soil Moisture			
SF	dry	dry	
1"	dry	dry	
3"	moist	moist	
Soil Temp (F°)			
SF	77.0	104.2	
2"	62.6	88.7	
4"	63.9	85.5	
Air Temp (F°)	65.0	90.2	
Wind	0	2-6 S	
%RH	55%	56%	
Sky Condition	0% clouds	0% clouds	
Crop Stage	Pre-trans	established	

Comments: Matrix and Powerflex herbicides applied post-emergence to 2 inch weeds resulted in significant pepper injury and crop yield reduction. Other products applied pre-transplant with Dual Magnum were generally safe to peppers. Chateau, Spartan and GoalTender applied pre-transplant resulted in excellent weed control and yields comparable to the handweeded treatment. These herbicides are not currently registered for use in peppers.

Fertilization and other pesticides:

Fall 2011 - dairy replacement pack manure, 160 lb N/A.

Irrigation: As required

Weed Abbreviations:

COLQ = Common Lambsquarters

RRPW = Redroot Pigweed

COPU = Common Purslane

VELE = Velvetleaf

Transplanted Banana Pepper Herbicide Efficacy - Arlington, WI - 2012

Trt No.	Treatment Name	Rate Unit	Grow Stg	6/26/12		% Weed Control 6/26/12			
				% Injury	#plants/plot	COLQ	RRP'W	COPU	VELE
1	Dual Magnum	0.75 PT/A	Pre-tran	0 a	10 a	90 bcd	85 d	88.3 bc	96.7 a
2	Dual Magnum	0.75 PT/A	Pre-tran	0 a	10.7 a	91.7 bc	88.3 cd	93.3 b	100 a
	Reflex	1 PT/A	Pre-tran						
3	Dual Magnum	0.75 PT/A	Pre-tran	0 a	10.7 a	95 ab	95 ab	93.3 b	96.7 a
	Spartan	4 OZ/A	Pre-tran						
4	Dual Magnum	0.75 PT/A	Pre-tran	0 a	10.3 a	85 d	83.3 d	85 c	96.7 a
	Lorox	1 LB/A	Pre-tran						
5	Dual Magnum	0.75 PT/A	Pre-tran	0 a	11 a	90 bcd	83.3 d	88.3 bc	96.7 a
	Chateau	1 OZ/A	Pre-tran						
6	Dual Magnum	0.75 PT/A	Pre-tran	0 a	10.7 a	91.7 bc	86.7 cd	90 bc	98.3 a
	GoalTender	0.5 PT/A	Pre-tran						
7	Dual Magnum	0.75 PT/A	Pre-tran	0 a	10.7 a	95 ab	91.7 bc	93.3 b	100 a
	Spartan	6 OZ/A	Pre-tran						
8	Dual Magnum	0.75 PT/A	Pre-tran	0 a	10.7 a	88.3 cd	83.3 d	91.7 b	96.7 a
	Matrix	1 OZ/A	Post						
	NIS	0.25 % V/V	Post						
9	Dual Magnum	0.75 PT/A	Pre-tran	0 a	11.7 a	86.7 cd	83.3 d	90 bc	96.7 a
	Powerflex	3.5 OZ/A	Post						
	NIS	0.25 % V/V	Post						
10	Handweeded			0 a	10.3 a	100 a	100 a	100 a	100 a
LSD (P=.05)				0	1.23	5.79	6.02	6.44	4.78

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

Note: Research results only. Some treatments in this trial are not currently registered on the crop

Transplanted Banana Pepper Herbicide Efficacy - Arlington, WI - 2012

Trt	Treatment	Rate	Grow	7/11/12	% Weed Control 7/11/12			
No.	Name	Rate Unit	Stg	% Injury	COLQ	RRP'W	COPU	VELE
1	Dual Magnum	0.75 PT/A	Pre-tran	0 c	13.3 de	16.7 cd	36.7 c	95 a
2	Dual Magnum	0.75 PT/A	Pre-tran	0 c	33.3 d	26.7 cd	85 ab	96.7 a
	Reflex	1 PT/A	Pre-tran					
3	Dual Magnum	0.75 PT/A	Pre-tran	0 c	88.3 ab	66.7 ab	63.3 abc	96.7 a
	Spartan	4 OZ/A	Pre-tran					
4	Dual Magnum	0.75 PT/A	Pre-tran	0 c	20 de	13.3 cd	26.7 c	88.3 b
	Lorox	1 LB/A	Pre-tran					
5	Dual Magnum	0.75 PT/A	Pre-tran	0 c	40 cd	0 d	36.7 c	98.3 a
	Chateau	1 OZ/A	Pre-tran					
6	Dual Magnum	0.75 PT/A	Pre-tran	0 c	43.3 cd	36.7 bc	43.3 bc	96.7 a
	GoalTender	0.5 PT/A	Pre-tran					
7	Dual Magnum	0.75 PT/A	Pre-tran	0 c	93.3 ab	73.3 a	68.3 abc	100 a
	Spartan	6 OZ/A	Pre-tran					
8	Dual Magnum	0.75 PT/A	Pre-tran	20 a	0 e	98.3 a	80 ab	98.3 a
	Matrix	1 OZ/A	Post					
	NIS	0.25 % V/V	Post					
9	Dual Magnum	0.75 PT/A	Pre-tran	16.7 b	66.7 bc	93.3 a	90 a	96.7 a
	Powerflex	3.5 OZ/A	Post					
	NIS	0.25 % V/V	Post					
10	Handweeded			0 c	100 a	100 a	100 a	100 a
LSD (P=.05)				3.13	33.22	34.78	41.74	5.65

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

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Transplanted Banana Pepper Herbicide Efficacy - Arlington, WI - 2012

Trt	Treatment	Rate	Grow	7/26/12		8/1/12		8/8/2012	
No.	Name	Rate Unit	Stg	fruit/plant	lb fruit/plant	fruit/plant	lb fruit/plant	fruit/plant	lb fruit/plant
1	Dual Magnum	0.75 PT/A	Pre-tran	0.878 cd	0.047 bc	0.416 cde	0.02 cd	0.121 c	0.007 c
2	Dual Magnum	0.75 PT/A	Pre-tran	0.806 cd	0.045 bc	0.464 cde	0.021 cd	0.582 bc	0.022 c
	Reflex	1 PT/A	Pre-tran						
3	Dual Magnum	0.75 PT/A	Pre-tran	1.324 bc	0.076 b	0.909 bc	0.048 b	0.961 bc	0.041 bc
	Spartan	4 OZ/A	Pre-tran						
4	Dual Magnum	0.75 PT/A	Pre-tran	0.888 cd	0.041 bc	0.033 e	0.003 d	0.288 c	0.008 c
	Lorox	1 LB/A	Pre-tran						
5	Dual Magnum	0.75 PT/A	Pre-tran	1.515 b	0.081 b	0.636 bcd	0.031 bc	0.576 bc	0.026 bc
	Chateau	1 OZ/A	Pre-tran						
6	Dual Magnum	0.75 PT/A	Pre-tran	1.344 bc	0.077 b	0.744 bcd	0.035 bc	0.733 bc	0.034 bc
	GoalTender	0.5 PT/A	Pre-tran						
7	Dual Magnum	0.75 PT/A	Pre-tran	1.182 bc	0.077 b	1.115 b	0.05 b	1.754 b	0.08 b
	Spartan	6 OZ/A	Pre-tran						
8	Dual Magnum	0.75 PT/A	Pre-tran	0.415 d	0.02 c	0.403 cde	0.016 cd	0.243 c	0.007 c
	Matrix	1 OZ/A	Post						
	NIS	0.25 % V/V	Post						
9	Dual Magnum	0.75 PT/A	Pre-tran	0.432 d	0.019 c	0.227 de	0.01 d	0.172 c	0.008 c
	Powerflex	3.5 OZ/A	Post						
	NIS	0.25 % V/V	Post						
10	Handweeded			2.127 a	0.131 a	2.127 a	0.093 a	3.718 a	0.155 a
LSD (P=.05)				0.5852	0.042	0.5274	0.0194	1.2269	0.055

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

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