

8318 Flumioxazin

Weed Control in Processing Squash

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A squash demonstration plot was planted on June 11, 2003 in preparation for the field day held in July. Golden Delicious processing squash was planted on 30 inch rows with at 1 seed per foot with fertilizer banded at 353 lbs/A (12-29-10). Herbicides were applied on July 12 and plots irrigated-in with about 0.5 inches of water. Weed control and crop growth were recorded twice, but the crop was not harvested.

Outlook, Sandea + Outlook, and Sandea + Strategy (high rate) herbicide treatments had the best weed control at 4 WAP. However, crop injury was still significant for the Sandea + Strategy treatment at the high rate at 6 WAP. Flumioxazin efficacy was much less than expected. Even though Outlook herbicide only provided 60-70 % control, this level was exceptional compared to all of the other registered treatments. Poor total weed control in some of the treatments was caused by poor grass control (e.g. Tr.1 and 2). The check plot is not pictured but did not produce any marketable fruit.

Table 1. Herbicide effects on Golden Delicious winter squash growth and weed control.

No	Herbicide	Timing	Rate		Obs.	Plant stand	Phyto		Stunting		Weed control at 4 WAP				
			lb ai/A	oz/pts			no/10 ft	3 WAP	6 WAP	3 WAP	6 WAP	Hairy nightshade	Powell amaranth	Purslane	Total
								0-10	%	%					
1	Sandea	PES	0.031	2/3 oz	3	11	0	0	13	23	32	100	100	40	
2	Sandea	PES	0.031	2/3 oz	3	10	0	0	17	13	60	100	83	57	
	Command	PES	0.251	2/3 pts											
3	Sandea	PES	0.031	2/3 oz	3	11	0	0	10	27	7	100	100	43	
	Curbit	PES	0.750	2 pts											
4	Sandea	PES	0.031	2/3 oz	3	10	0	0	13	13	23	100	100	50	
	Curbit	PES	1.500	4 pts											
5	Sandea	PES	0.031	2/3 oz	3	13	0	0	10	3	7	100	100	57	
	Strategy	PES	2.000	2 pts											
6	Sandea	PES	0.031	2/3 oz	3	9	0	0	23	23	72	100	100	88	
	Strategy	PES	4.000	4 pts											
7	Sandea	PES	0.031	2/3 oz	3	13	0	0	20	3	62	100	97	88	
	Outlook	PES	0.469	10 oz											
6596-8	Outlook	PES	0.469	10 oz	3	10	0	0	13	7	63	98	90	93	
9	Curbit	PES	1.500	4 pts	3	11	0	0	7	13	10	85	67	47	
L-10	Command	PES	0.251	2/3 pts	2	14	0	0	0	20	45	35	50	10	
	Strategy	PES	4.000	4 pts	3	9	0	0	17	10	33	57	98	57	
8318-12	Flumioxazin	PES	0.016	0.5 oz	3	11	0	0	3	20	67	50	7	13	
	Flumioxazin	PES	0.032	1.0 oz	3	12	0	0	3	13	20	57	43	30	
14	Check				3	13	0	0	7	37	0	0	0	0	
FPLSD (0.05)						ns	ns	ns	14	17	ns	24	36	18	

Figure 1. Herbicide effects on weeds and squash yield, viewed after killing frosts. Numbers on pictures refer to treatments listed in Table 1.



Table 2. Herbicide application data.

Date	June 12, 2003
Crop stage	Planted 6-11
Herbicide/treatment	All
Application timing	PES
Start/end time	2:30-3:30 PM
Air temp/soil temp (2" surface)	68/73/75
Relative humidity	70%
Wind direction/velocity	S 3-5
Cloud cover	100%
Soil moisture	Dry
Plant moisture	-
Sprayer/PSI	BP CO ₂ 30 PSI
Mix size	2.1 L/4 plot
Gallons H ₂ O/acre	26/3plots/mix
Nozzle type	6-8002
Nozzle spacing and height	20/18 above canopy
Soil inc. method/implement	Watered in after 2 days