

*Research Report to the*  
**Agricultural Research Foundation**  
*and the*  
**Oregon Processed Vegetable Commission**  
2004

***Title: Weed and Sweet Corn Response to Option, Accent, and Callisto  
Herbicides***

**Project leader**

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The objective of this trial was to compare tolerance of sweet corn to Option (formasulfuron) herbicide. Option has a different spectrum of activity than Accent. Sweet corn (Var. Coho) was planted near Independence on July 23 at a site with a known history of wild proso millet and into soil treated with Lorsban. Plots were 10 by 25 ft and each treatment replicated 4 times. Option, Accent, and Callisto herbicides were applied on July 23 to V3-4 corn. Sweet corn was harvested on September 29 from 10 ft of two rows of each plot.

**Results**

Evaluation one week after treatments were applied indicated that Option herbicide caused more injury than Accent at recommended rates (see table below). An antagonism was noted between Callisto and Accent. When these two herbicides were tank mixed, the normal splotching caused by Callisto was not present. Stunting of corn growth was dramatic when Option was tankmixed with Callisto and Aim. Sweet corn yield was greatest for Callisto alone. The use of Lorsban may have exacerbated injury levels.

Control of wild proso millet was exceptional for both Option and Accent. Even Callisto gave 98 % control. Option may have provided better control of lambsquarters than Accent, although broadleaf density was low at this site.

Table. Weed and crop response to Option, Callisto, and Accent herbicides, Independence, OR, 2004.

Herbicide	Rate	Obs	Crop response 1 WAT		Weed control at 1 WAT			Crop Harvest			Weed control at harvest		
			Phyto	Stunting	Wild proso millet	Lambsquarters	Total	Ear number	Yield	Avg. ear wt.	Wild proso millet	Lambsquarters	Total
	lbs ai/A		0-10	%	%	%	%	no./A	t/A	lbs.	-----%-----		
1 Option	0.033	4	1.3	43	99	100	100	29000	10.8	0.70	100	98	99
2 Accent	0.031	4	0.5	24	100	97	99	27700	10.8	0.75	100	94	98
3 Callisto	0.094	4	3.3	13	98	100	99	29400	12.1	0.78	100	100	100
4 Option Callisto	0.033 0.094	4	1.5	43	100	100	100	25900	10.8	0.83	100	100	100
5 Accent Callisto	0.031 0.094	4	0.8	10	100	100	100	29800	10.3	0.75	100	100	100
6 Accent Aim	0.031 0.008	4	2.0	28	100	100	100	27400	11.2	0.80	100	100	100
7 Option Aim	0.033 0.008	4	2.0	45	100	100	100	28700	11.1	0.78	100	99	100
8 Check		4	0.0	0	0	0	0	24400	9.9	0.78	0	0	0
LSD (0.05)			0.9	15.0	2.7	1.5	2.6	3400.0	1.6	0.1	0.0	3.9	1.1