

Project No: 13C 3419 5229

Title: Perennial Weed Control in Blueberries

Reporting Period: FY 2008-09

Personnel:

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Accomplishments: The herbicide trial was conducted in blueberry during 2008-09. The data will be provided at grower meetings during winter 2008-09.

Results:

Established 'Nelson' blueberries (Erickson Farms, Mount Vernon, cooperator) were treated with directed sprays of Callisto (mesotrione), Matrix (rimsulfuron), and Sandea (halosulfuron) at one of two timings: early postemergence (EPOST) June 20 and late postemergence (LPOST) July 18, 2008. Percent weed control and crop injury was estimated September 3. Blueberries were harvested from the plots September 9 and October 1. The experimental design was a randomized complete block with three replicates. Means were separated using Fisher's Protected LSD ($P = 0.05$). Data are provided in the Table.

Blueberry bushes at this site were somewhat variable in size and in the pre-existing level of perennial weed control. Many of the bushes were large in stature and plots had few weeds, while other bushes were smaller and had moderate to severe infestations of perennial weed species. Consequently, weed control and yield parameters varied widely between replicates and treatments were not statistically different (see Table). These results are probably more reflective of bush size than resulting from the herbicide treatments tested in this study. Still, no products caused obvious foliar injury to blueberry at any timing (data not shown), and weed control by early September (75 days (11 weeks) after EPOST treatment and 45 days (6 weeks) after LPOST treatment) was good to excellent in EPOST treatments, and very good in most LPOST treatments. Based on these data, continued testing of these products is warranted.

Table. Blueberry yield, and 50-berry weights after treatment with several herbicides in established 'Nelson' blueberry (2008).

Treatment ¹	Rate	Weed control ²		50-berry weights ³		Yield ³	
		EPOST	LPOST	EPOST	LPOST	EPOST	LPOST
	Product/a	%	%	g/berry	g/berry	kg/plot	kg/plot
Callisto	3 fl.oz	64	75	1.5	1.3	4.89	0.45
Callisto	6 fl.oz	63	93	1.4	1.4	4.66	1.78
Sandea	1.5 oz	61	75	1.6	1.6	4.46	1.26
Sandea	2 oz	68	66	1.3	1.5	1.34	2.74
Matrix	2 oz	93	82	1.3	1.0	3.24	0.61
Matrix	4 oz	88	91	1.4	1.4	4.65	3.57
Callisto + Sandea	3 fl.oz + 1.5 oz	81	72	1.3	1.5	0.98	2.33
Callisto + Matrix	3 fl.oz + 2 oz	82	83	1.3	0.9	2.36	0.76
Sandea + Matrix	1.5 oz + 2 oz	87	90	1.4	1.4	2.74	1.02
Check	---		41		1.4		1.68
LSD _{0.05}			ns		ns		ns

¹All treatments were mixed with nonionic surfactant (0.25%, v/v) prior to application; EPOST applications were made June 20 and LPOST were made July 18, 2008.

²Weed control was evaluated September 3, 2008.

³Berries were harvested on September 9 and October 2, 2008.