

Project No: 13C 3419 5229

Title: Perennial Weed Control in Blueberries

Reporting Period: FY 2009-10

Personnel:

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Accomplishments: The herbicide trial was conducted in blueberry during 2009-10. The data has been and will be provided at grower meetings during winter 2009-10.

Results:

Established 'Duke' blueberries (Erickson Farms, Mount Vernon, cooperator) were treated with directed sprays of Callisto (mesotrione), Matrix (rimsulfuron), Sandea (halosulfuron), Sinbar (terbacil), Stinger (clopyralid), Kixor (saflufenacil), and KSU 12800 either early (EPOST) or late (LPOST). EPOST treatments were applied March 26 and LPOST July 9, 2009. Percent weed control and crop injury was estimated April 28 and September 11. Blueberries were harvested from the plots July 15 and August 6. 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 plots varied in the level of pre-existing perennial weed infestation. 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, LPOST weed control and yield parameters varied widely between replicates and treatments were not statistically different (see Table). These yield 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). Initial weed foliar injury was good to excellent for all EPOST treatments except for Stinger alone (70%) and Chateau at 12 oz/a (62%). Based on these data, continued testing of these products is warranted.

Table. Weed control, blueberry yield, and 50-berry weights after treatment with several herbicides in established 'Duke' blueberry (2009).

Treatment ¹	Rate product/a	Timing	Weed control ²		50-berry weight ³ g/berry	Yield ³ kg/plot
			Apr 28 %	Sep 11 %		
Sandea	2 oz	EPOST	90 ab	43	1.7	6.94
KSU 12800	7.2 fl.oz	EPOST	88 ab	75	1.8	7.38
Stinger	5.3 fl.oz	EPOST	70 bc	28	1.7	6.01
Callisto	6 fl.oz	EPOST	87 ab	33	1.9	5.93
Sinbar	2 lb	EPOST	88 ab	63	1.9	5.06
Sandea + Sinbar	2 oz + 2 lb	EPOST	87 ab	50	1.6	4.17
KSU 12800 + Sinbar	7.2 fl.oz + 2 lb	EPOST	80 ab	32	1.7	1.23
Stinger + Sinbar	5.3 fl.oz + 2 lb	EPOST	95 a	80	1.9	6.17
Callisto + Sinbar	6 fl.oz + 2 lb	EPOST	88 ab	75	1.7	7.29
Kixor	1 oz	EPOST	92 ab	42	1.8	8.30
Kixor	2 oz	EPOST	93 a	65	2.0	13.07
Chateau	6 oz	EPOST	92 ab	53	1.8	8.98
Chateau	12 oz	EPOST	62 c	3	1.7	8.53
Sandea	1.5 oz	LPOST	---	72	1.8	6.47
Sandea	2 oz	LPOST	---	67	1.6	7.51
Matrix	2 oz	LPOST	---	73	1.9	0.91
Matrix	4 oz	LPOST	---	73	1.7	2.20
Callisto	6 fl.oz	LPOST	---	57	2.0	3.87
Stinger	5.3 fl.oz	LPOST	---	48	1.8	2.51
Sandea + Matrix	2 oz + 4 oz	LPOST	---	78	1.5	1.70
Callisto + Sandea	6 fl.oz + 2 oz	LPOST	---	67	1.7	4.91
Stinger + Sandea	5.3 fl.oz + 2 oz	LPOST	---	50	1.6	1.36
Callisto + Matrix	6 fl.oz + 4 oz	LPOST	---	77	1.6	3.35
Stinger + Matrix	5.3 fl.oz + 4 oz	LPOST	---	83	1.7	3.39
Check	---	---	0 d	48	1.8	4.06

Means within a column followed by the same letter are not statistically different ($P < 0.05$).

¹Kixor treatments were mixed methylated seed oil (1%, v/v) and ammonium sulfate (2%, wt/v) and Chateau treatments were mixed with nonionic surfactant (0.25%, v/v) prior to application; all LPOST treatments were mixed with nonionic surfactant (0.25%, v/v) prior to application; EPOST applications were made March 26 and LPOST were made July 9, 2009.

²Weed control was evaluated April 28 and September 11, 2009.

³Berries were harvested on July 15 and August 6, 2009.