A Post-emergence Weed Control Trial in Old Tokay Grapes Evaluating Four Different Herbicides. Mullen, R. J., J. B. Kissler, J. J. Kissler, and C. L. Elmore. A post-emergence weed trial in old Tokay grapes for control of mature bermudagrass was established on 6/8/83 at Robert Mondavi Vineyards (Robert Mondavi and Stanton Lange) northeast of Woodbridge, California, evaluating four herbicides. The soil type was a Columbia very fine sandy loam, and all treatments were applied with a handheld CO_2 backpack sprayer in 50 gallons per acre spray volume. All treatments, except Roundup (glyphosate), were allowed to hit the lower canes and leaves to evaluate possible crop phytotoxicity; Roundup was applied as a directed spray over the weeds but to the base of the vines (suckers were removed prior to treatment). Weeds present at the time of treatment were 6- to 10-inch-tall mature bermudagrass, which was beginning to head out, and 12- to 15-inch-tall Johnsongrass, which was scattered in the trial area. Weed control and crop phytotoxicity ratings were made on 6/30/83. Best topkill of both weed species present occurred with Roundup, followed by Dowco 453, Fusilade (fluazifop) at both rates tested, and then Poast (sethoxydim). All materials demonstrated excellent crop safety.

	TREATMENT	RATE LB/AC	WEED CONTROL RATINGS1/ BERMUDAGRASS (Topkill)	JOHNSONGRASS* (Topkill)	CROP PHYTOTOXICITY RATINGS1/
1	sethoxydim + crop oil concentrate	½+½%	5.6	4.3	0.5
2	sethoxydim + crop oil concentrate	1+½%	6.8	5.5	0.5
3	fluazifop + X-77	½+½%	6.9	6.0	0.5
4	fluazifop + X-77	1+½%	6.9	6.0	0.5
5	Dowco 453 + X-77	1+½%	7.0	6.3	0.5
6	glyphosate + X-77	2+½%	7.8	7.8	0.7
7	CONTROL	--	1.7	0.3	0.5

1/ Average of four replications: 0 = no weed control; crop growing vigorously
10 = complete weed control; crop dead

* Light stand in plot and ratings are an average of 2 or 3 replications for Johnsongrass control

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