A Postemergence Weed Control Trial in Pumpkins. Mullen, R.J., C. Fouché, R. Wittie, S. Whiteley, M. Goff and B. Villalpando.

A postemergence weed control trial in pumpkins, evaluating the efficacy and crop safety of Sandea (halosulfuron) in single or multiple sprays, was established at the Delta College Farm (Jim Burkhard) off Highway 99 Frontage Road West near Manteca, California, on July 10, 2002.

All herbicide treatments were applied with a handheld CO_2 backpack sprayer using 8002 nozzles at 40 psi in a spray volume of 30 gallons per acre water. There were four replications of each treatment, and the plot design was a randomized complete block. The soil type at the trial site was a Dinuba fine sandy loam and the pumpkin field variety was Sorcerer. Weeds present on the initial treatment date were 3 to 7 true leaf yellow nutsedge, with a lighter population of 2 to 4 inch rosette hairy crabgrass and 2 to 6 inch rosette common purslane; the pumpkin crop was 16 to 20 inches tall and beginning to flower. A second application of the low rate of Sandea was made on July 24, 2002. All of the Sandea treatments had Herbimax, a Crop Oil Concentrate (COC) added to the spray mixture with applications made as directed sprays to the base of the crop but over the emerged weeds.

Best control of the yellow nutsedge present occurred with two applications of the low rate of Sandea plus COC, followed by the single high rate of Sandea plus COC and the single low rate of Sandea plus COC. None of the Sandea treatments provided control of the limited populations of hairy crabgrass and common purslane. A very slight and temporary chlorosis appeared on some of the crop leaves hit by the spray applications. Yields of marketable fruit were taken on September 12, 2002. All treatments outyielded the untreated control but there was no significant difference in yield. There may have been a trend toward lower yield with the two low rate applications of Sandea plus COC, but there was one replication in that treatment that had greatly reduced yields relative to those in the other three replications of the same treatment. Site and/or crop stand variation may have been responsible for the lower yield in that replication with no contribution from Sandea at all.

2002 Pumpkin Postemergence Weed Control Trial
Delta College Farm – off Highway 99 Frontage Road near Manteca, California

			Weed Control [1]								
			Yellow Nutsedge		Hairy Crabgrass		Common Purslane		Crop [1] Phyto		Yield [2] Marketable
Treatment	Rate Lb/Acre	Applications	7/24	8/7	7/24	8/7	7/24	8/7	7/24	8/7	Fruit/Plot (Lbs.)
Sandea (75WG)	0.031 + ½%	1	7.3	7.0	1.3	1.0	1.5	1.0	1.3	0.5	126.6
Sandea + COC	0.047 + ½%	1	7.8	7.5	2.3	1.3	2.0	1.5	1.4	0.7	121.9
Sandea + COC	0.031 + ½%	2	7.4	8.4	2.0	1.5	1.8	1.8	1.1	1.0	98.6
Untreated Control	-----	-----	0.5	0.0	0.0	0.0	0.0	0.0	0.6	0.6	91.9

[1] Average of four replications: LSD @ 5%: n.s.
Weed Control – 0 = no weed control; 10 = complete weed control C.V. = 27.4%
Crop Phytotoxicity – 0 = no crop injury; 10 = crop dead

[2] Average of four replications