

2013 Transplanted Lettuce Weed Control Trial

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Methods: The trial was conducted with a cooperating grower in Las Lomas, Monterey County on a site with Elkhorn fine sandy loam soil. The trial was applied prior to transplanting lettuce on September 13. Each plot was one 57 inch wide bed by 20 feet long and replicated 3 times. Applications were made with two passes of a one nozzle wand with an 8008EVS tip applying the equivalent of 65 gallons of water per acre. The trial area was transplanted with the red leaf lettuce variety 'lolla rosa' on September 14. The transplant were set with sprinkler irrigation and grown with typical conventional production practices. Weed counts and phytotoxicity was rated on two dates: September 23 and October 8 (14 and 24 days after transplanting). A harvest evaluation was made on October 29.

Results: There were significantly fewer weeds in the 2.1 and 4.2 pint/A Prowl H2O treatments on both evaluation dates. The 4.2 pint/A rate was particularly effective in reducing weed density. There was significantly greater phytotoxicity observed in the 4.2 pint rate of Prowl H2O on both evaluation dates (Tables 1&2); the greater phytotoxicity was observed as stunting of the plants. There were no significant differences in the yield evaluations, but there is a trend that indicates that on this light soil type there is a reduction in the mean head weight of the lettuce with higher rates of Prowl H2O.

Table 1. Weed counts (no./15 ft²) and phytotoxicity rating on September 23

Treatment	Rate/A	Phyto-toxicity	Pineapple Weed	Groundsel	Shepherd's Purse	Chenopods	Malva	Chick-weed	Sow Thistle	Total Weeds
Control	----	0.00	5.00	2.33	17.00	0.33	1.33	6.33	0.33	32.67
Prowl H2O	2.1 pints	0.00	3.00	2.33	4.33	0.00	0.00	0.00	0.00	9.67
Prowl H2O	4.2 pints	1.33	0.00	0.67	0.00	0.00	0.00	0.00	0.00	0.67
Prefar 6E	5.0 quarts	0.00	1.33	3.00	9.00	0.00	0.00	4.33	0.00	17.67
Pr>treat		0.0029	0.0285	0.3056	0.1476	0.4543	0.0701	0.0658	0.4547	0.0314
LSD _{0.05}		0.57	2.9	ns	ns	ns	ns	ns	ns	19.2

Table 2. Weed counts (no./15 ft²) and phytotoxicity rating on October 8; yield evaluation on October 29

Treatment	Rate/A	Phyto-toxicity	Pineapple Weed	Groundsel	Shepherd's Purse	Chenopods	Malva	Chick-weed	Sow Thistle	Total Weeds	Plant/A	Mean head grams
Control	----	0.00	10.67	5.67	29.33	1.67	2.33	9.67	1.33	61.33	94,885	42.2
Prowl H2O	2.1 pints	0.00	4.33	5.00	9.00	0.33	0.00	0.00	0.00	18.67	100,973	39.7
Prowl H2O	4.2 pints	1.67	0.00	3.00	0.00	0.00	0.00	0.00	0.00	3.00	91,840	34.5
Prefar 6E	5.0 quarts	0.00	3.00	6.33	15.67	0.33	0.00	9.67	0.33	35.33	98,436	40.8
Pr>treat		0.0009	0.0044	0.6362	0.0603	0.091	0.0057	0.1089	0.1814	0.0163	0.2501	0.0883
LSD _{0.05}		0.57	4.22	ns	20.55	ns	1.15	ns	ns	30.59	ns	ns