

2007 Transplanted Lettuce Weed Control Trial

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Methods: The transplanted lettuce trial was conducted in cooperation with Jose Valdez of D'Arrigo Brothers south of Salinas on a site with Mocho silt loam soil. All materials were applied to shaped beds on May 29. Each plot was one 40-inch bed wide by 20 feet long. There were three replications arranged in a randomized complete block design. Materials were applied in 72 gallons of water per acre using a CO₂ backpack at 30 psi using two passes of a one-nozzle wand with an 8008E tip. The field was transplanted on May 30 with the romaine lettuce variety PIC 714. Weed counts and phytotoxicity ratings were made on June 21 (23 DAT). The field was weeded following these ratings and no more weed ratings were made. Harvest was conducted on July 10 (42 DAT) by harvesting all unstripped heads from a 10 foot strip from the middle of the plot and counting and weighting them.

Results: There was light weed pressure at this site. However, we were able to detect significantly lower numbers of sow thistle in the Prowl H2O at 1.0 lb a.i./A treatment on June 21 (Table 1). Dual Magnum at 0.63 lb a.i./A had the lowest overall weed pressure followed by Prowl H2O at 1.0 lb a.i./A. There was damage from the transplanting operation that was difficult to distinguish from phytotoxicity from the herbicides and, as a result, there were elevated phytotoxicity ratings in all treatments, including the untreated control. There were no impacts of the treatments on yield (Table 2); however The Dual Magnum 0.63 lb a.i./A treatment had significantly lower mean head weight than the untreated control.

Table 1. Weed (per 20 ft²) and phytotoxicity evaluations on June 21

Treatments	Lbs a.i./A	Material/A	Sow Thistle	Shepherd's Purse	Night-shade	Total Weeds	Phyto
Untreated	----	----	2.3	2.0	1.0	5.7	1.3
Kerb 50W	1.2	2.4 lbs	1.0	1.7	0.0	2.7	1.7
Dual Magnum 7.62	0.63	0.66 pint	1.0	0.3	0.0	1.3	2.7
Dual Magnum 7.62	0.95	1.00 pint	1.0	0.7	0.3	2.3	1.7
Prowl H2O 3.8	0.5	16.9 fl oz	2.7	2.3	0.3	5.3	2.3
Prowl H2O 3.8	1.0	33.7 fl oz	0.3	0.3	0.7	1.7	2.3
LSD (0.05)			2.0	n.s.	n.s.	4.2	n.s.

Table 2. Yield evaluations on July 10

Treatments	Lbs a.i./A	Material/A	Yield T/A	Yield Heads/A	Mean Head lbs
Untreated	----	----	22.69	30.49	1.48
Kerb 50W	1.2	2.4 lbs	21.48	30.49	1.40
Dual Magnum 7.62	0.63	0.66 pint	19.66	29.62	1.32
Dual Magnum 7.62	0.95	1.00 pint	21.54	30.92	1.38
Prowl H2O 3.8	0.5	16.9 fl oz	23.22	30.71	1.51
Prowl H2O 3.8	1.0	33.7 fl oz	22.18	29.07	1.52
LSD (0.05)			2.26	1.86	0.11