

2019 Dual Magnum Evaluations on PlantTape™ Transplanted Lettuce

University of California Cooperative Extension, Monterey County

Richard Smith, Farm Advisor

Methods: Trial was conducted in a commercial head lettuce field near Chualar, CA. The soil type at the site was Chualar loam. Head lettuce was planted with PlantTape™ July 1, 2019. The Plant Tape plants were 18 days old and had 2.5 leaves. Herbicide treatments were applied the day prior to transplanting on June 30. Materials were applied with a CO₂ backpack sprayer using a one-nozzle wand with an 8008EVS tip applying the equivalent of 41 gallons of water per acre. Plots were one half of an 80-inch bed wide (3.33 ft) by 15 feet long and randomized in a complete block design with four replications. The field was sprinkler irrigated for the whole growth cycle. Weed counts and phytotoxicity ratings were made on July 10 and 15 of. Harvest evaluations were conducted on August 22 by harvesting and weighing 10 untrimmed plants from each plot.

Results: There was slight phytotoxicity in some Dual Magnum treatments on the July 10 evaluation date (Table 1). There is a trend indicating improved weed control with Dual Magnum at the 0.51 and 0.67 pint/A rates over the use of Kerb alone; however, there was noticeable phytotoxicity at the 0.51 and 0.67 pint/A Dual Magnum treatments on the July 15 and August 1 evaluation dates. The combination of 0.33 pint of Dual Magnum with 1.9 pint of Kerb had better weed control than Dual Magnum alone. No difference in yield was observed between the treatments in this trial. In summary, Dual Magnum at lower rates (0.16 and 0.33 pint/A) in combination with Kerb at 1.9 pint/A had good safety and better weed control than Kerb by itself. The higher rates used in this trial (0.51 and 0.67 pint/A) had measurable phytotoxicity on this soil type, but no reduction in yield was measured.



Dual Magnum 0.51 pint
Stunted purslane



Untreated
for comparison



Dual Magnum 0.51 pint
Distortion on some plants



Untreated
for comparison

Table 1. Weed counts (No./2.8 ft²) on two dates and phytotoxicity on three dates and harvest evaluation.

Treatment	Rate/A	July 10				July 15				Aug 1	Aug 22
		Phyto	Shepherd's Purse	Purslane	Total weeds	Phyto	Shepherd's Purse	Purslane	Total weeds	Phyto	mean head lbs
Dual Magnum	0.16 pint	0.3	4.3	1.0	5.8	0.0	5.5	1.8	7.5	0.0	1.53
Dual Magnum	0.33 pint	0.0	5.3	0.3	5.8	0.0	5.8	1.3	7.3	0.0	1.49
Dual Magnum	0.51 pint	0.0	0.5	1.0	1.5	0.3	1.8	1.0	2.8	0.5	1.50
Dual Magnum	0.67 pint	0.5	0.8	0.8	1.5	1.3	0.3	0.0	0.3	1.3	1.46
Dual Magnum	0.16 pint	0.3	3.0	0.8	3.8	0.0	3.8	2.8	6.5	0.0	1.55
Kerb	1.90 pint										
Dual Magnum	0.33 pint	0.3	2.5	1.3	3.8	0.0	3.3	1.3	4.5	0.0	1.48
Kerb	1.90 pint										
Dual Magnum	0.51 pint	0.8	2.5	1.5	4.0	1.0	2.8	0.5	3.3	0.5	1.56
Kerb	1.90 pint										
Dual Magnum	0.67 pint	0.0	1.8	0.3	2.0	1.3	0.5	0.0	0.5	1.0	1.67
Kerb	1.90 pint										
Kerb	1.90 pint	0.0	6.0	1.5	7.5	0.0	10.0	2.3	12.5	0.0	1.56
Untreated	---	0.0	11.0	1.0	12.0	0.0	15.5	2.0	17.5	0.0	1.47
Pr>F treat		0.3123	0.0008	0.8082	0.0510	0.0000	0.0003	0.0640	0.0002	0.1325	0.9090
LSD _{0.05}		ns	4.2	ns	5.0	0.4	5.8	1.9	6.9	ns	ns