

Low Rate of Kerb Trial

University of California Cooperative Extension

Summary: In January 2016, the label for Kerb was reestablished for use on leaf lettuce after a lapse since 2009. The new label includes a use option for a 25 day preharvest interval (PHI) which opens the option for use on baby lettuce which often is harvested in 30 days or less during the main summer production season. The PHI depended on the amount of rate Kerb used (see below). We evaluated the low rates of Kerb in these evaluations to examine their weed control on lettuce. In general, the 1.25 pint rate (0.5 lb a.i./A) was weak on sow thistle, shepherd's purse and nettleleaf goosefoot, but providing excellent control of purslane and nettle.

Use rates from Kerb label

Rate	PHI
up to 1.25 pints/A (0.5 lbs a.i./A)	25 days
up to 1.80 pints/A (0.75 lbs a.i./A)	35 days
up to 3.75 pints/A (1.5 lbs a.i./A)	45 days
up to 5.00 pints/A (2.0 lbs a.i./A)	55 days

Methods: *Trial No. 1* was established on March 3 east of King City. Soil type was Rincon Clay Loam. Green Romaine baby lettuce was planted in 30 seedlines on 80-inch wide beds. The field was planted on March 3 and the trial was put out and the first germination water was applied on the same day. The materials were applied with four passes of a one tip wand with an 8008EVS nozzle applying the equivalent of 80 gallons per acre of water. Each treatment was replicated 4 times in a randomized complete block design. *Trial No. 2* was conducted at the Hartnell College East Campus Research Facility in Salinas on Antioch loam soil. Materials were applied post plant preemergence on August 17 to 40-inch beds planted with the Romaine lettuce variety Sun Valley. The first germ water was applied on August 18. Materials were applied with two passes of a one tip wand with an 8008EVS nozzle applying the equivalent of 74 gallons per acre of water. Each treatment was replicated 4 times in a randomized complete block design.

Results: *Trial No. 1* Nettleleaf goosefoot was the primary weed at this site. The 1.25 pint rate (0.5 lb a.i./A) did not provide good control of this weed (Table 1). However, there was a great deal of variability at this site and none of the weed ratings (except for nightshade) were significant. *Trial No. 2* There was a high population of the following weeds at this site: sow thistle, hairy nightshade, common purslane, burning nettle, shepherd's purse and nettleleaf goosefoot. Other weeds included malva and groundsel. The quantity of weeds allowed us to get a good measure of the weed control provided by Kerb. On the first evaluation date on August 29, none of the rates of Kerb provided control of sow thistle (Table 2). The 1.25 pint rate (0.5 lb

a.i./A) was weak on hairy nightshade and shepherd's purse, but provided good control of purslane, nettle and nettleleaf goosefoot. On the second evaluation date on September 6, the 1.25 pint rate (0.5 lb a.i./A) weak on sow thistle, shepherd's purse and nettleleaf goosefoot, but providing excellent control of purslane and nettle (Table 3).

Table 1. Trial No. 1. Weeds per 6 ft² on March 24

Pints/A	lbs a.i./A	Shepherd's purse	Nettleleaf goosefoo t	Night- shade	Total weeds
1.25	0.5	0.3	8.3	1.3	9.8
2.50	1.0	0.0	2.0	0.0	2.0
5.00	2.0	0.0	1.0	0.0	1.0
Untreat ed	---	0.5	9.3	0.8	10.5
	Pr>F treat	0.4363	0.4568	0.0681	0.3524
	LSD _{0.05}	ns	ns	1.1	ns

Table 2. Trial No. 2. Weeds per 2 ft² on August 29

Pints/A	lbs a.i./A	Phyto*	Sow thistle	Hairy nightshad e	Purslane	Nettle	Shepherd' s purse	Nettleleaf Goosefoo t	Other weeds	Total weeds
1.25	0.5	0.0	9.3	4.3	3.8	0.0	6.5	2.0	1.3	27.0
2.50	1.0	0.0	4.0	4.8	0.5	0.3	0.0	0.0	0.8	10.3
5.00	2.0	1.0	4.3	1.8	0.0	0.0	0.3	0.3	0.0	6.5
Untreat ed	---	0.0	2.8	4.3	75.5	11.0	13.0	21.0	0.8	128.3
	Pr>F treat	0.0000	0.0360	0.0225	0.0020	0.0000	0.0017	0.0001	0.3437	0.0001
	LSD _{0.05}	0.1	4.4	1.9	35.0	2.3	5.7	6.7	ns	35.6

* Scale: 0 = no damage to lettuce to 10 = lettuce dead

Table 3. Trial No. 2. Weeds per 2 ft² on September 6

Pints/A	lbs a.i./A	Sow thistle	Hairy nightshad e	Purslane	Nettle	Sheph erd's purse	Nettleleaf Goosefoot	Other weeds	To tal we ed s
1.25	0.5	5.3	0.8	0.0	0.0	6.0	7.8	2.0	21. 8
2.50	1.0	5.8	0.5	0.0	0.5	0.5	4.3	0.3	11. 8
5.00	2.0	3.8	0.0	0.0	0.0	0.5	0.0	0.5	4.8
Untreat ed	---	3.0	2.5	71.8	8.3	9.5	17.0	1.0	11 3.0
	Pr>F treat	0.3899	0.0560	0.0003	0.0000	0.012 6	0.0025	0.2059	0.0 00 0
	LSD _{0.05}	ns	1.8	26.1	2.1	5.6	7.0	1.8	27. 4