

WINTER ANNUAL WEED CONTROL IN ALFALFA, BOB TALLEY FARM, PARKER VALLEY

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Herbicides were applied to the foliage of the weeds and alfalfa full coverage in 40 GPA water January 3, 1985. The soil was a sandy loam and moist. Temperature was 60°F and the wind was calm. Plot size was 20 by 30 ft. replicated four times in a randomized complete block design.

Table 1. Plant size at time of application January 3, 1985.

<u>Species</u>	<u>Height</u>
Alfalfa	4 to 6 inches tall
London Rocket	5 to 7 inches tall - a few seedlings
Shepherdspurse	Rosette, 6 in. wide
Spiney Sowthistle	Rosette, 2 to 6 in. wide

Table 2. % stunt of alfalfa and % control of weeds February 7, from 6 herbicide treatments when alfalfa growth was 8 in. tall.

Treatment	Lbs./ Acre*	% Stunt Alfalfa	% Control		
			London Rocket	Shepherds- purse	Spiney Sowthistle
Butoxone (2,4-DB)	1.0	9	90	69	70
Paraquat Plus	0.5	71	79	93	93
A-263-499	0.11	17	92	96	96
A-263-499	0.22	16	92	99	99
Vertac General Weed Killer	3.75	37	95	91	91
Premerge 3	3.0	17	92	88	88
Untreated		0	0	0	0

*Paraquat Plus applied with .25% surfacant X 77, A 263-499 applied with 0.1% Tween 20 and Vertac General Weed Killer applied with 0.5% surfacant X 77.

In this test:

1. Paraquat Plus and Vertac General Weed Killer severely burned the alfalfa foliage but did not reduce stands. Regrowth of alfalfa was normal by the first cutting.
2. Butoxone and A 263-499 caused temporary stem bending and malformed new leaves on the alfalfa. Stunting from A-263-499 showed shorter internode length and persisted through the first cutting.
3. Butoxone controlled London Rocket but was less effective for control of Shepherdspurse and Spiney Sowthistle.
4. All other herbicide treatments resulted in acceptable control of annual broadleaf weeds.