

WINTER ANNUAL WEED CONTROL IN ALFALFA, McDONALD FARM, WELLTON

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Herbicides were applied January 18, 1985 to the foliage of the weeds and alfalfa in 40 GPA water. The silty loam soil was dry on the surface. There was no wind and the temperature was 70°F. Plot size was 20 x 20 ft. replicated four times in a randomized complete block design.

Table 1. Plant size at time of application January 18, 1985.

<u>Species</u>	<u>Height</u>
Alfalfa	3 trifoliolate leaves
Silversheath knotweed	2 to 4 inches
Shepherdspurse	1 to 2 inch rosette
London Rocket	1 to 2 inch rosette

Table 2. % stunt of alfalfa and % control of weeds March 6th from 6 herbicide treatments when the alfalfa was 6 in. tall.

Treatment	Lbs./ Acre*	% Stunt Alfalfa	% Control		
			Knot- weed	Shepherds- purse	London Rocket
Butoxone (2,4-DB)	1.0	10	0	39	95
Paraquat Plus	0.5	99	12	98	98
A-263-499	0.11	32	97	98	98
A-263-499	0.22	42	99	99	99
Vertac General Weed Killer	3.75	82	19	85	98
Premerge 3	3.0	45	12	60	94
Untreated	0	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. Rates of Paraquat, Vertac General and Premerge 3 were too high for alfalfa in the 3 trifoliolate leaf stage. Severe stand loss occurred with Paraquat and Vertac General. Premerge 3 reduced the stand unacceptably.
2. A 263-499 at all rates severely stunted the alfalfa for the first cutting but did not reduce stands. The plants recovered by the 2nd cutting.
3. Only A-263-499 gave acceptable control of silversheath knotweed. It also controlled other annual broadleaf weeds.
4. Butoxone only controlled London Rocket but resulted in less crop injury than the other herbicides.