

# **An Evaluation of Potential New Treatments For Canarygrass (*Phalaris minor*) Control in Red Wheat**

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## ***Abstract***

*Canarygrass (*Phalaris minor*) has become an increasingly widespread weed in wheat grown in central and southwestern Arizona. Only two herbicides, Barban and Diclofop, have been used effectively to control this weed. The registration of Barban was dropped in 1989 and the labeled rate of Diclofop was lowered to marginal control levels in 1990. A test was conducted to evaluate potential new treatments for the control of canarygrass. One treatment; Puma at 1.14 lbs./A resulted in excellent control of this weed.*

## **Introduction**

Canarygrass is a common weed in wheat grown in Arizona. Crop rotation and mulch planting are effective in keeping this weed in check although post emergence herbicides are widely used. Two herbicides are used; Barban, which is no longer manufactured and Diclofop, which was reduced to marginal labeled rates.

Canarygrass has reduced wheat yields in past tests by more than 50% when heavy and widespread infestations are present. The need for a new post emergence herbicide is apparent.

## **Method**

A test was conducted at the Yuma Mesa Agriculture Center in 1990 to evaluate 6 herbicide treatments for the control of canarygrass in red wheat. Treatments were applied on 1/4/90 to canarygrass that was at the 1 to 3 leaf stage. The infestation was 25-50 plants per square inch at the time of application. The wheat was tillering. Plot size was 50 X 25 ft. with 4 applications set in a randomized complete block design. A backpack compressed air sprayer was used and applied 20 gallons per acre. Visual evaluations of canarygrass control, broadleaf control and wheat injury were made 30 days prior to harvest. Wheat yields were measured with a small plot combine which harvested 43 X 5 ft.

## **Results**

Yuma Valley Agriculture Center  
 Wheat - Canarygrass  
 Evaluated April 4, 1990 - Wheat Headed  
 Harvested: May 23, 1990

Treatment	lb/A	% Canarygrass Control				% Wheat Injury				% Broadleaf Control*				Yield (lbs./plot)				lbs./Acre									
		1	2	3	4	Tot	Avg	1	2	3	4	Tot	Avg	1	2	3	4		Tot	Avg							
1. Goal	0.125	40	60	30	20	150	37	0	0	0	0	0	0	0	0	0	0	0	0	0	35	29	33	24	121	30.25	6173
2. Goal	0.25	50	30	40	20	140	35	0	0	0	0	0	0	0	0	0	0	0	0	0	36	27	29	28	120	30.0	6122
3. Puma	0.91	60	40	20	50	170	42	0	0	0	0	0	0	0	0	0	0	0	0	0	28	33	15	35	111	27.75	5663
4. Puma	1.03	95	90	40	40	265	66	0	0	0	0	0	0	0	0	0	0	0	0	0	38	34	32	22	126	31.5	6429
5. Puma	1.14	95	90	90	95	370	92	0	0	0	0	0	0	0	0	0	0	0	0	0	38	35	37	30	140	35.0	7143
6. Hoelon	1.25	80	90	80	30	280	70	0	0	0	0	0	0	0	0	0	0	0	0	0	32	34	38	28	132	33.0	6735
7. Untreated		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	12	18	17	55	13.75	2806

\* Lambsquarter, Silversheath knotweed