



Texas Agricultural Extension Service
The Texas A&M University System

Result Demonstration Report

Pigweed and Grass Control with Paramount in Grain Sorghum in 1999

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Summary

These tests suggest that Paramount is not an effective herbicide for pigweed, sandbur, seedling johnsongrass, or witchgrass. Both crabgrass and barnyardgrass are listed on the Paramount label for control. Paramount activity on these grasses will be examined in 2000. For now, Paramount should only be considered a bindweed herbicide. Control of bindweed in numerous studies has been excellent.

Introduction&Objectives

Paramount was approved for use in sorghum in 1999 for control of bindweed and some grass species in several Texas counties. These studies were established to evaluate Paramount alone and in tank mixes for injury to grain sorghum and control of pigweed and grass.

Materials and Methods

In 1999 a study was conducted near Vega, TX to evaluate pigweed control. Applications were made to 10 inch milo and 6 inch pigweed. Similar studies were conducted near Etter, Dawn, and Canyon, TX to evaluate sandbur, seedling johnsongrass, and witchgrass. Applications were made at these sites to 5 inch milo and 3 inch grass. All applications were made with a tractor mounted CO₂ sprayer at 3 mph and 10 gpa. Ratings were taken at approximately 2, 4, and 8 WAT for crop injury and weed control. Ratings were based on a 0 to 100% scale with 0 = no control or injury and 100 = complete control or complete crop kill.

Results

Paramount alone only provided minimal control of pigweed (Table 1). When combined with atrazine, Clarity, or 2,4-D amine, control improved but was still marginal. The study site was drought stressed throughout the season which may have contributed to the poor performance of all chemicals. Crop injury was observed for treatments containing Clarity or 2,4-D amine and was likely due to the crop being under stress.

When Paramount was applied alone and with atrazine for sandbur, control was poor (Table 2). All plots showed some grass stunt and reddening, but grass survived and grew out of the damage. No crop injury was seen in this study.

No control was observed near Dawn and Canyon for seedling johnsongrass or witchgrass (data not shown).

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Table 1. Paramount control of pigweed in sorghum near Vega, TX in 1999.

Treatments ¹⁾	Rate Product/Ac	% Pigweed Control			% Crop Injury		
		2 WAT ²⁾	4 WAT	8 WAT	2 WAT	4 WAT	8 WAT
Paramount	0.25 lb	31	21	14	0	0	0
Paramount	0.38 lb	43	24	15	0	0	0
Paramount Aatrex	0.25 lb + 0.5 qt	73	63	58	0	0	0
Paramount Aatrex	0.38 lb + 0.5 qt	71	69	55	0	0	0
Paramount Clarity	0.25 lb + 0.125 lb	55	64	63	10	6	5
Paramount Clarity	0.38 lb + 0.125 lb	51	63	61	10	8	3
Paramount 2,4-D Amine	0.25 lb + 0.25 lb	51	48	38	11	6	3
Paramount 2,4-D Amine	0.38 lb + 0.25 lb	55	46	44	14	9	6
Clarity	0.25 lb	64	69	70	10	4	3
2,4-D Amine	0.5 lb	61	55	49	11	8	4

¹⁾All Paramount treatments were applied with 1 qt crop oil concentrate. ²⁾WAT = weeks after treatment.

Table 2. Paramount control of sandbur in sorghum near Etter, TX in 1999.

Treatments ¹⁾	Rate Product/Ac	% Sandbur Control			% Crop Injury 2 WAT
		2 WAT ²⁾	4 WAT	8 WAT	
Paramount	0.25 lb	34	16	4	0
Paramount	0.38 lb	23	11	1	0
Paramount + Atrazine	0.25 lb + 0.5 lb	36	20	6	0
Paramount + Atrazine	0.25 lb + 0.75 qt	29	15	4	0
Paramount + Atrazine	0.25 lb + 1 lb	30	18	4	0
Paramount + Atrazine	0.38 lb + 0.5 lb	24	14	1	0
Paramount + Atrazine	0.38 lb + 0.75 lb	23	15	4	0
Paramount + Atrazine	0.38 lb + 1 lb	19	11	0	0
Atrazine	1.5 lb	8	5	1	0

¹⁾All Paramount treatments were applied with 1 qt crop oil concentrate. ²⁾WAT = weeks after treatment.