



Texas Agricultural Extension Service

The Texas A&M University System

“Control of Annual Grasses in Grain Sorghum using Paramount 75DF” 1999-2000

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Summary

Studies were conducted in 1999 and 2000 to evaluate control of annual grasses using Paramount 75DF (quinclorac). Grass species evaluated include barnyardgrass, large crabgrass, and field sandbur. Control of barnyardgrass in 2000 was marginal with ratings of only 65% with Paramount @ 5.33 oz and 8.0 oz/ac. Control of large crabgrass with the same rates was poor in 2000. In 1999 control of field sandbur was also poor. These studies indicate that Paramount is not a viable option for controlling any of the above grasses.

Introduction

Annual grasses are a persistent problem in Texas Panhandle grain sorghum. Many options for preemergence control exist, but postemergence control is essentially non-existent. Paramount is labeled for postemergence control of barnyardgrass and large crabgrass in grain sorghum for several Texas counties. Field sandbur is not labeled, but is a major grass weed in grain sorghum. Therefore, it was evaluated to expand the database on Paramount in this area. All grass species were evaluated for postemergence control with Paramount 75DF.

Materials and Methods

	<u>barnyardgrass</u>	<u>crabgrass</u>	<u>sandbur</u>
Location:	Deaf Smith Co.	Randall Co.	Moore Co.
Design:	RCBD (4 reps.)	RCBD (4 reps.)	RCBD (4 reps.)
Plot Size:	15' x 25'	15' x 25'	15' x 25'
Variety:	G.H. 403	N/A	DK 41Y
Planting Date:	June 13, 2000	N/A	July 7, 1999
Application Date:	July 13, 2000	June 21, 2000	Aug 11, 1999
Crop Size:	6 inch	6 inch	5 inch
Weed Size:	2 inch	2 inch	3 inch
Temp. (F):	91	85	90
Spray Vol.:	10 gpa	10 gpa	10 gpa
Nozzle Size:	11002	80015	11002

Results

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See Table 1.

Table 1. Annual Grass Control with Paramount. 1999 & 2000.

Treatment ¹	Product Rate / Acre	% barnyardgrass control		% large crabgrass control		% field sandbur control	
		2 WAT ²	4 WAT	2 WAT	4 WAT	2 WAT	4 WAT
Paramount + COC	5.33 oz + 1 qt	62	68	-	-	34	16
Paramount + COC	8.0 oz + 1 qt	65	68	28	10	23	11
Paramount + MSO	5.33 oz + 1%	63	68	-	-	-	-
Paramount + MSO	8.0 oz + 1%	62	67	23	10	-	-
Paramount + atrazine	5.33 oz + 16 oz	-	-	-	-	36	20
Paramount + atrazine	8.0 oz + 16 oz	-	-	-	-	24	14
Paramount + atrazine	5.33 oz + 32 oz	-	-	-	-	30	18
Paramount + atrazine	8.0 oz + 32 oz	-	-	-	-	19	11

¹ Paramount + atrazine applied with 1 qt/ac COC. ² WAT = weeks after treatment.

Conclusions

Overall, barnyardgrass with both rates of Paramount was marginal. No difference was detected among rates or additives. No advantage was seen from using the 8.0 oz rate, which is the labeled rate, versus the 5.33 oz rate.

Large crabgrass control was poor with the 8.0 oz rate of Paramount and no difference was seen when MSO was added instead of COC. Only minor stunting was seen in the treated plots at 2 WAT and by 4 WAT was barely visible. In 1999 atrazine was added to the Paramount treatments to control field sandbur. The addition of atrazine did not appear to help Paramount control the sandbur. In all plots only minor stunting and reddening of the sandbur stems occurred, but no plants were completely killed. Again, no advantage was seen from using 8.0 oz instead of 5.33 oz of Paramount. The results of these studies indicate that Paramount at either rate is not a viable option for controlling annual grasses postemergence in Texas Panhandle grain sorghum.

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