Texas Cooperative EXTENSION
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STARANE FOR KOCHIA CONTROL IN GRAIN SORGHUM

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Summary
A study was conducted in 2002 to evaluate Starane (fluroxypyr) for postemergence control of kochia (*Kochia scoparia*) in grain sorghum. Starane applied to large, and drought-stressed kochia provided marginal control when applied alone at 0.5 and 0.66 pt/ac. When tank-mixed with atrazine at 1 qt/ac, 0.5 pt of Starane provided 90% control. The 0.5 pt/ac rate of Starane plus 0.33 oz/ac of Aim provided over 80% control. Starane plus Ally had a high level of crop stunting.

Objective
Starane is a herbicide that has traditionally been used in small grains and other crops for control of certain broadleaf weeds and volunteer potatoes. Recently some interest has been sparked for the use of Starane to control emerged kochia in grain sorghum. Currently Starane is not labeled for use in grain sorghum. Therefore, this study was conducted to explore this option.

Materials and Methods

Study Design	RCBD
Plot Size	15'x25'
Crop Variety	Sprint 2 (Richardson Seed)
Planting Date	May 27, 2002
Application Date	June 27, 2002

Study Design	RCBD
Crop Size	4 inches
Weed Size	1-10 inches
Temperature (F)	90
Humidity (%)	26
Spray Volume (gpa)	10

Results

Starane Evaluations. See Table.

Treatment	Rate/ac	Crop Injury		Kochia Control	
		2 WAT	4 WAT	2 WAT	4 WAT
Starane	0.5 pt	0	0	63	80
Starane	0.66 pt	0	0	75	83

		Crop Injury		Kochia Control	
Starane + Ally	0.5 pt + 0.05 oz	28	25	73	80
Starane + atrazine	0.5 pt + 0.5 qt	0	0	65	73
Starane + atrazine	0.5 pt + 1.0 qt	0	0	90	93
Starane + Saber + atrazine	0.5 pt + 1.0 pt + 0.5 qt	0	0	82	82
Starane + Aim WG	0.5 pt + 0.33 oz	0	0	83	87

All treatments included a non-ionic surfactant.

Discussion

Crop stunting near 25% was observed for the treatment of Starane plus Ally. No other significant levels of injury were observed for any other treatment. Levels of weed control varied among the treatments. Starane applied alone at 0.5 and 0.66 pt/ac provided 63 and 75% control at 18 days after application, respectively. Starane at 0.5 pt/ac plus atrazine at 0.5 qt/ac only provided 65% control, but when the atrazine was increased to 1.0 pt/ac control increased to 90%. Starane plus Aim at 0.33 oz/ac provided 83% control and caused a minor amount of leaf burn to the crop early in the season. The treatment of Starane (0.5 pt) plus Saber (1.05 pt) plus atrazine (0.5 qt) provided only 82% control. The best treatment in this study appeared to be Starane plus 1.0 qt of atrazine. No crop yields were taken from this study due to weather conditions which caused a crop failure.

Acknowledgments

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