

Postemergence herbicides in sugarbeets

Florence-1980/81

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Betanal, Betanex, and a combination of the two herbicides were evaluated at three rates for control of London rocket in a commercial field near Florence, Arizona. Nortron was incorporated preplant over-the-bed with a rolling cultivator. Postemergence herbicides were applied November 13, 1980 when sugarbeets had four to eight leaves and London rocket had mostly four leaves, with some plants having up to eight leaves. All treatments were applied in a 10-inch band in 20 gpa water. Plots were three beds, 30 feet long and replicated four times.

Leaf distortion from Nortron and feeding damage from rabbits was present on sugarbeets at the time of spraying postemergence herbicides. No damage to sugarbeets was observed that could be attributed to postemergence herbicides. The difference in London rocket control between Betanal and Betanex was small. Betanal did appear superior to Betanex at the 1.5 lb/A rate (Table 1). In January, the best control was obtained with 1.5 lb/A of Betanal and 0.75 lb/A of Betanal plus 0.75 lb/A Betanex. Table 2 shows the average daily temperatures for one week prior and one week following postemergence herbicide application. A cold front was moving into the state the day postemergence herbicides were applied. The cooler weather following spraying, and the large size of the weeds, are probably the reasons that the highest rates of herbicide gave only partial control of London rocket.

Table 1.

Treatment Herbicide		London rocket control percent estimated	
		Dec. 18	Jan. 21
Betanal	0.5	66	48
Betanex	0.5	63	31
Betanal	1.0	68	53
Betanex	1.0	66	51
Betanal	1.5	80	69
Betanex	1.5	71	55
Betanal/Betanex	0.25/0.25	53	39
Betanal/Betanex	0.5/0.5	53	34
Betanal/Betanex	0.75/0.75	84	69
No Herbicide		0	0

Table 2.

	Average daily temperature	
	1 week prior to applica- tion	1 week fol- lowing ap- plication
Average daily high	89	71
Average daily low	56	44
Average daily	73	58