

Johnsongrass Control in Cotton with Postemergence Herbicides-1981-Gilbert

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A test was conducted to evaluate selective, postemergence herbicides for Johnsongrass control in cotton. The field was preirrigated, then mulched and bedshaped in one operation. Caparol, 1.2 lb/A, and Prowl, 0.75 lb/A, were incorporated over the beds with a rolling cultivator on April 16. Deltapine 61 cotton seed was planted into moisture the same day. Postemergence herbicides were applied May 18 when Johnsongrass was 10 to 16 inches tall and cotton was 4 to 6 inches tall, June 2 when Johnsongrass was up to 30 inches tall and cotton was 8 to 10 inches tall, and July 2 when Johnsongrass was up to 40 inches tall and cotton was 18 to 24 inches tall. In May and June, herbicides were applied as an 18-inch band over the top of cotton in 40 gpa water. In July, herbicides were applied broadcast over the top of cotton in 40 gpa water. One treatment consisted of a 25% Roundup solution applied with a hand-held rope-wick over the top of cotton in two directions. Plots were four 38-inch beds, 40 feet long and treatments were replicated four times. The test area was cultivated and irrigated eight times.

Three of the new herbicides controlled Johnsongrass better when the total rate was split into two applications compared to a single application. There were small differences between the May-July and June-July split applications. In October, Poast, Fusilade, and RO-13-8895 were giving good to excellent control of Johnsongrass. Fusilade at 2 lb/A was the only herbicide giving satisfactory control when applied as a single application. MSMA and Roundup gave fair to good control initially, but Johnsongrass had regrown by October. In July, Poast caused some necrotic speckling of cotton foliage. CG-82725, Fusilade, and RO-13-8895 caused purple speckling and some bronzing of cotton foliage.

Control of Johnsongrass with postemergence herbicides applied one or two times.

Herbicide	Treatment			Dates	Johnsongrass control Percent estimated			
	lb/A or %	Adjuvant %			July 2	July 23	Aug. 21	Oct. 8
Poast	0.5	Crop oil 0.6		May, July	55	88	79	79
CG-82725	0.5	X-77 0.5		May, July	30	70	55	35
Fusilade	1.0	X-77 0.5		May, July	69	91	95	92
RO-13-8895	0.5	X-77 0.5		May, July	81	93	89	85
Poast	0.5	Crop oil 0.6		June, July	50	89	76	74
CG-82725	0.5	X-77 0.5		June, July	18	66	48	28
Fusilade	1.0	X-77 0.5		June, July	66	94	98	91
RO-13-8895	0.5	X-77 0.5		June, July	65	94	91	88
Poast	1.0	Crop oil 0.6		June	69	56	41	26
CG-82725	1.0	X-77 0.5		June	50	45	35	23
Fusilade	2.0	X-77 0.5		June	79	80	71	73
RO-13-8895	1.0	X-77 0.5		June	71	64	54	38
MSMA	4.0	None		June	79	64	58	53
Roundup ^{1/}	25%	None		July	0	64	55	45

^{1/}Roundup was applied with a rope-wick in two directions.

Johnsongrass Control in Cotton with Rope-Wick Applications of Roundup-1981-Gilbert

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A test was conducted to evaluate rope-wick applications of Roundup for Johnsongrass control when applied on one, two or three dates and in one or two directions. The field was preirrigated, then mulched and bedshaped in one operation. Caparol, 1.2 lb/A and Prowl, 0.75 lb/A were incorporated over the beds with a rolling cultivator on April 16. Deltapine 61 cotton seed was planted into moisture the same day. A 1:3 Roundup:water solution was applied on three dates with a hand-held 'L'-shaped rope-wick constructed from 0.75 inch PVC pipe. A 20-inch length of pipe was drilled and fitted, diagonally, with loops of 0.3 inch diameter nylon rope. The loops were 2 inches long, 0.5 inch apart, and covered 180 degrees of the pipe surface. Applications were made by holding the wick 2 to 3 inches above the cotton and moving in one or two directions. Wicking was done June 2 when cotton was 8-10 inches tall and Johnsongrass was up to 30 inches tall, July 2 when cotton was 18 to 24 inches tall and Johnsongrass was up to 36 inches tall, and August 3 when cotton was 36 inches tall and Johnsongrass was up to 48 inches tall. Plots were four 38-inch beds, 40 feet long and treatments were replicated four times. The test area was cultivated and irrigated eight times.