

- In this test:
1. Weeds did not become a dominating factor and had no adverse effect on yield.
 2. Only one treatment (USB 3153) yielded more seed cotton than did the untreated check plot but this difference was not significant.

TIME OF KARMEX-DSMA OVER-THE-TOP OF COTTON

H.F. Arle and K.C. Hamilton

Planted: April, in moist soil, but irrigated April 24 to improve stand.

Variety: Deltapine 16.

Soil: Sand 29%, silt 44%, clay 27%, organic matter 1%.

Treated: Treflan (0.5 lb/A) was disced into the soil February 18 before furrowing for the preplanting irrigation. Karmex (1 lb/A) was applied June 5 as a directed spray covering the furrow and base of cotton plants. The test was cultivated three times with a rolling cultivator. Over-the-top applications of 1.6 lb/A Karmex, 2 lb/A DSMA, and 0.5% blended surfactant in 40 gpa of water were made on May 14, June 4, June 24, July 15, August 6, August 27, and September 17 when cotton averaged 4, 7, 16, 30, 50, 56, and 70 inches tall.

Harvested: By machine in November.

Plots: Four rows - 41 ft. long - four replications.

Date treatment	Boll components ¹		Seed per boll	Fiber properties ¹			Yield of seed cotton lb/A ²
	Weight grams	Percent lint		Length inches UHM	Strength Breaker	Fineness Micro. ²	
Untreated	5.7	37	34	1.12	3.3	4.4 bc	2460 a
May 14	5.7	36	34	1.14	3.4	4.1 c	1980 bc
June 4	5.8	37	35	1.13	3.4	4.7 ab	2180 ab
June 24	5.5	36	33	1.12	3.3	4.7 ab	1760 bc
July 15	5.6	36	34	1.13	3.3	4.6 ab	1880 bc
August 6	5.6	37	33	1.12	3.1	4.9 a	970 d
August 27	5.7	36	33	1.14	3.2	4.5 b	1580 c
September 17	5.9	37	34	1.13	3.4	4.6 ab	2160 ab

¹Based on four 10-boll samples before harvest.

²Values followed by the same letter are not significantly different.

- In this test:
1. All applications of Karmex-DSMA caused yellowing of cotton leaves.
 2. Applications on May 14 stunted and killed some cotton plants.
 3. Applications on August 6 caused browning of cotton foliage.
 4. Certain treatments affected fiber fineness.
 5. Applications of Karmex-DSMA on May 14, June 24, July 15, August 6, and August 27 reduced cotton yield.

RESPONSE OF GIANT AND COMMON BERMUDAGRASS TO THREE HERBICIDES

K.C. Hamilton

Forty-eight plants of common and giant bermudagrass were established from rhizome segments in 1974. Plants were spaced 9 by 15 feet apart and maintained vegetatively by mowing until treatments started. In 1974 and 1975, low rates of Treflan and Princep were applied to the soil (sand 60%, silt 25%, clay 15%, organic matter 1%) to control annual weeds. Starting April 29, 1975, Roundup and Dowpon were applied in 25 gpa of water to bermudagrass foliage at two-month intervals. Phytar 560 at 2 lb/A for the first six applications and 4 lb/A, thereafter, was applied in 80 gpa of water at two-week intervals. Plots contained four plants and treatments were replicated four times. Size of topgrowth of plants was estimated 15 times in 1975. Irrigation was similar to that given cotton.

Type	Treatment		Date of Observation							
	Herbicide	lb/A	4/29	5/12	5/26	6/9	6/23	7/7	7/21	8/4
			Size (sq. ft.) of growing plants							
Giant Roundup	2		3	1.3	0.2	0.1	0.2	0.3	0.2	0.3
Giant Dowpon	20		3	4.1	2.1	0.3	0.1	0.1	0.1	0.2
Giant Phytar 560	2-4		3	3.3	3.5	2.8	3.3	4.3	4.1	2.7
Common Roundup	2		42	42	10	2	4	2	3	5
Common Dowpon	20		41	40	33	21	9	2	2	2
Common Phytar 560	2-4		36	37	11	22	28	30	50	23
			8/18	9/1	9/15	9/29	10/13	10/27	11/10	
			Size (sq. ft.) of growing plants							
Giant Roundup	2		0.3	0.2	0.2	0.2	0.2	0.1	0.1	
Giant Dowpon	20		0.7	0.4	0.3	0.7	1.3	0.7	0.5	
Giant Phytar 560	2-4		2.7	2.3	2.1	1.6	1.1	0.6	0.4	
Common Roundup	2		6	1	0.5	0.5	0.7	0.1	0.1	
Common Dowpon	20		2	1	0.6	0.6	0.9	0.3	0.4	
Common Phytar 560	2-4		18	6	5.8	5.7	4.5	1.2	0.8	

- In this test:
1. All treatments reduced the size of bermudagrass plants but failed to reduce the number of plants during the first season.
 2. Phytar 560 at 2 lb/A did not control bermudagrass.
 3. There was little difference in the response of giant and common bermudagrass to herbicides.

FLAT PLANTING, NARROW-ROW, WEED CONTROL TEST

M.D. Cannon and H. Fred Arle

Field A-2 was used to test the efficacy of herbicides in late, flat-planted, narrow-row cotton. Karmex at 1 lb/A and Treflan at 3/4 lb/A were applied on the flat on May 12 and disked in to a depth of 4". The field was flat-planted on May 13, using two planting methods, conventional 40-inch spacing at 12 lb/A of Deltapine 16, and two rows six inches apart, on 40-inch spacing planted at the rate of 24 lb/A.

Irrigation water was applied on May 15th. It was necessary to reirrigate on May 29 to get a stand. Some weeds emerged, and a topical application of Karmex at 1 lb/A was made on June 12. The next irrigation was on June 22. There was a weed problem in spots in the field, and they had to be hoed.

The double-row planting yielded 2,728 pounds of seed cotton per acre, and the yield from the single-row planting was 2,585 pounds per acre. There was no significant difference at the 5% level of significance. No gleaning was done for lack of time.