

Weeds Present: Browntop Ponicum, Jungle rice, ground cherry, pigweed.

Planting: On March 21, 1975, Stoneville 213 cotton was planted, two rows on 40-inch beds in moist soil under a dry mulch. Unsuitable temperatures prevented normal emergence and the area was replanted on April 11. Seeding rate was 25 lbs/A. Rows on bed tops were spaced seven inches apart.

Harvest: Cotton from the two middle beds of each plot was picked by a standard spindle picker on November 19.

Treatment	lb/A	% Weed control 11/18/75		Seed cotton lbs/A.
		Broadleaf	Grass	
Weedy check	--	90	85	2614
Karmex +	1.5			
Prowl	.75	100	100	2821
Karmex +	1.5			
Treflan	.75	100	100	2732
Karmex +	1.5			
Prefar	1.5	100	100	2866
Karmex +	1.5			
Cobex	.5	92	100	2812
Caparol +	2.0			
Amex	1.5	95	100	2920
Caparol +	2.0			
Treflan	.75	100	100	2836
USB-3153	.75	100	100	3208

- In this test:
1. Weeds did not become a serious problem even on check plots.
  2. Seed cotton yields were greater on all treatments than on the untreated check. Differences were not significant.

#### PREPLANT APPLICATIONS OF HERBICIDES INCORPORATED IN SHAPED BEDS FOR NARROW-ROW COTTON

H. Fred Arle and K.C. Hamilton

Herbicide Treatment: Herbicides were applied broadcast over shaped beds on February 18, 1975 and incorporated on bed tops with a power-driven mulcher (Univator). The test area was not cultivated during the season.

Soil: Sand 37%, silt 39%, clay 24%, organic matter 0.8%.

Weeds Present: Browntop Ponicum, Jungle rice, ground cherry, pigweed.

Planting: On March 21, 1975 Stoneville 213 cotton seed at the rate of 25 lbs/A was planted in two rows on 40-inch beds in moist soil under a dry mulch. Rows were seven inches apart on each bed. Due to low temperatures emergence was not satisfactory and the area was replanted on April 11.

Harvest: Cotton from the two middle beds (four rows) of each plot was picked by a standard spindle picker on November 19.

Treatment	lb/A	% Weed Control 11/18/75		Seed cotton lbs/A
		Broadleaf	Grass	
Weedy check	--	80	99	2746
Karmex +	1.5			
Prowl	.75	97	100	2619
Karmex +	1.5			
Treflan	.75	89	100	2643
Karmex +	1.5			
Prefar	1.5	95	100	2475
Karmex +	1.0			
Cobex	.5	100	100	2653
Caparol +	2.0			
Amex	1.5	85	100	2435
Caparol +	2.0			
Treflan	.75	95	99	2718
USB 3153	.75	100	100	2960

- 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 <sup>1</sup>		Seed per boll	Fiber properties <sup>1</sup>			Yield of seed cotton lb/A <sup>2</sup>
	Weight grams	Percent lint		Length inches UHM	Strength Breaker	Fineness Micro. <sup>2</sup>	
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

<sup>1</sup>Based on four 10-boll samples before harvest.

<sup>2</sup>Values 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.