Table 2. Effect of Yellow Herbicides and Caparol on Cotton Stand and Percent Stunting by June, 1975 Prior to Bloom

Herbicide	No Discing		Discing	
	Plants/10 ft row	% stunt	Plants/10 ft row	% stunt
Treflan + Caparol	24.8*	19.3 d	21.5 e	16.7 c
Cobex + Caparol	24.7 a	16.7 cd	25.7 bc	17.7 c
Tolban + Caparol	23.2 a	21.3 d	24.6 cd	16.0 bc
Prowl + Caparol	25.0 a	10.3 ab	23.8 d	10.2 b
Amex 820 + Caparol	25.5 a	11.7 abc	26.6 ab	8.5 b
Check	28.9 a	0 a	27.1 a	0 a

*Means followed with the same letter are not significantly different at the 0.05 level.

Plants/10 ft row - The average number of plants in 10 ft of row at six locations in each of four test fields.

% Stunt - 0 = no effect 100 = all plants dead

TIME OF ROUNDUP OVER-THE-TOP OF COTTON

K.C. Hamilton and H.F. Arle

Planted: April, in moist soil, but irrigated April 24 to improve stand.
Variety: Deltapine 16.
Soil: Sand 31%, silt 41%, clay 28%, 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 oz/A of Roundup 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 of treatment	Boll components[1]			Fiber properties[1]			Yield of seed cotton lb/A[2]
	Weight grams	Percent lint	Seed per boll	Length inches UHM	Strength Breaker	Fineness Micro.	
Untreated	6.0	36	34	1.15	3.4	4.4	2,300 a
May 14	6.0	36	34	1.15	3.3	4.2	2,320 a
June 4	6.0	36	34	1.15	3.4	4.4	2,280 a
June 24	5.9	37	35	1.13	3.3	4.6	2,530 a
July 15	5.8	37	34	1.14	3.3	4.5	2,530 a
August 6	6.0	37	34	1.13	3.3	4.4	2,440 a
August 27	6.0	37	34	1.15	3.3	4.4	2,360 a
September 17	5.9	37	34	1.12	3.3	4.5	2,470 a

[1]Based on four 10-boll samples before harvest.
[2]Values followed by the same letter are not significantly different.

In this test:
1. Over-the-top applications of 1 oz/A of Roundup had no visible effect on growth of cotton.
2. Karmex symptoms appeared in tops of cotton about two weeks after applications of Roundup from June 4 to August 27.
3. Over-the-top applications of 1 oz/A of Roundup had no effect on cotton yield, boll components, or fiber properties.

DATES AND RATES OF DIRECTED APPLICATIONS OF ROUNDUP IN COTTON

K.C. Hamilton and H.F. Arle

Planted: April, in moist soil, but irrigated April 24 to improve stand.
Variety: Deltapine 16.
Soil: Sand 30%, silt 43%, 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. On May 28, June 11, July 2, and July 15 when cotton was 6, 12, 22, and 30 inches high, Roundup was applied as a directed spray covering the furrow and base of cotton plants. Roundup was applied in 40 gpa of water.
Harvested: By machine in November.
Plots: Four rows - 41 ft. long - four replications.

Treatment		Boll components[1]			Fiber properties[1]			Yield of seed cotton lb/A[2]
Date	Roundup lb/A	Weight grams	Percent lint	Seed per boll	Length inches UHM	Strength breaker	Fineness Micro.	
Untreated		6.1	37	33	1.14	3.3	4.6	2,520 a
May 28	1.5	6.1	36	35	1.12	3.3	4.5	2,010 b
June 11	1.5	6.2	36	35	1.13	3.2	4.4	1,950 b
June 11	3.0	6.1	36	34	1.13	3.3	4.4	1,670 b
July 2	1.5	6.3	37	35	1.14	3.2	4.7	2,720 a
July 2	3.0	6.1	35	35	1.14	3.3	4.4	2,780 a
July 15	1.5	6.2	37	35	1.14	3.2	4.5	2,580 a
July 15	3.0	6.2	37	35	1.14	3.2	4.6	2,580 a

[1]Based on four 10-boll samples before harvest.
[2]Values followed by the same letter are not significantly different.

In this test:
1. Roundup applied on May 28 stunted cotton.
2. Roundup applied on June 11 stunted cotton and caused it to appear wilted for two to three weeks.
3. Roundup applied on July 2 caused chlorosis of cotton foliage three weeks later.
4. Roundup applied on May 28 and June 11 reduced yields.
5. No treatment altered boll components or fiber properties.

PREPLANTING APPLICATIONS OF HERBICIDES INCORPORATED BEFORE BED SHAPING FOR NARROW-ROW COTTON

H. Fred Arle and K.C. Hamilton

Herbicide Treatment: Herbicides were applied February 13, 1974 and incorporated by discing (four inches deep) before listing and bed shaping. After cotton emergence diuron was sprayed (May 28) onto the furrows of all plots at the rate of 1.0 lb/A. The test area was not cultivated during the season.
Soil: Sand 28%, silt 45%, clay 24%, organic matter 0.9%.