

**DRYLAND PERFORMANCE OF EIGHT COTTON CULTIVARS GROWN  
IN DOUBLE ROWS IN THE SOUTH TEXAS COASTAL PLAINS IN 2001**

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**Abstract**

This study evaluated the dryland yield performance of eight upland cotton cultivars and experimental lines planted in double rows (12 in. apart in 38-in. beds) to a target population of 110,000 plants per acre. The study was conducted at the Texas A&M University Agricultural Research and Extension Center in Corpus Christi, TX, during 2001. The cultivar entries were the following: Paymaster 1218 BG/RR, Paymaster 2280 BG/RR, FiberMax 832, FiberMax 958, NK 2108ss, NK 2387c, Tamcot Pyramid, and Tamcot MAR-LBK8SPXLBH-2-97. Cultivars were planted in a randomized complete block design with four replicates. Accumulated heat units during the season were normal, but the soil water regime was characterized by severe drought. Performance of each entry was as follows:

- **Paymaster 1218 BG/RR** exhibited moderate to high yield (915 lbs./ac) as a result of moderate to high number of bolls per ground area (236 per 1/1000 ac), the highest lint turnout (44%), and the second highest boll weight (1.95 g lint per boll). Fiber length was slightly below one inch (0.980 in.), and micronaire was within discount range (5.3).
- **Paymaster 2280 BG/RR** exhibited also moderate high yield (932 lbs./ac) as a result of moderate to high number of bolls per ground area (242 per 1/1000 ac) and the second highest boll weight (1.95 g lint per boll). Lint turnout was relatively high (39%), but was one of the lowest in the group. Fiber length was slightly below one inch (0.985 in.), and micronaire was at the top limit of the base range (4.975).
- **FiberMax 832** exhibited the second lowest yield (748 lbs./ac) as a result of a low number of bolls per ground area (174 per 1/1000 ac). Lint turnout was relatively high (39%), but was one of the lowest in the group. Boll weight was relatively (1.90 g lint per boll), but at mid range within the group. It produced the longest fiber (1.10 in.), and micronaire was moderate within the base range (4.5).
- **FiberMax 958** exhibited high yield (941 lbs./ac) as a result of moderate to high number of bolls per ground area (221 per 1/1000 ac). Despite the second highest lint turnout (43%) it produced the lightest bolls in the group (1.55 g lint per boll). It produced the second longest fiber among the group (1.08 in.), and micronaire was moderate within the base range (4.5).
- **NK 2108ss** exhibited the third lowest yield (758 lbs./ac). Boll number per ground area was moderate (223 per 1/1000 acre). Lint turnout was high (43%) and boll weight moderate (1.95 g lint per boll). It produced the shortest fiber (0.973 in.) with micronaire within the discount range (5.1).
- **NK 2387c** exhibited the second highest yield (949 lbs./ac) as a result of the second highest number of bolls per ground area (255 per 1/1000 ac). Lint turnout was high (42%) and boll weight was moderately low within the group (1.73 g lint per boll). Fiber length was slightly below one inch (0.993 in.), and micronaire was at the low end of discount range (5.025).
- **Tamcot Pyramid** exhibited the highest yield of the group (974 lbs./ac) as a result of the highest number of bolls per ground area (281 per 1/1000 ac), high lint turnout (43%), and high boll weight (1.95 g lint per boll). It produced the shortest fiber in the group (0.973 in.) with micronaire right at the low limit of the discount range (5.0).
- **Tamcot MAR-LBK8SPXLBH-2-97** exhibited the lowest yield (698 lbs./ac) as a result of the lowest number of bolls per unit ground area (157 per 1/1000 ac). Lint turnout was moderate (41%) and it produced the heaviest bolls (1.98 g lint per boll). Fiber length was below one inch (0.983 in.) and micronaire was within the discount range (5.2).

Tamcot Pyramid, NK 2387c, FiberMax 958, Paymaster 2280 BG/RR, Paymaster 1218 BG/RR exhibited the best yield performance of the group of cultivars tested. Out of these best yield performers, FiberMax 958 produced the best quality fiber.