

**COTTON TILLAGE TRIALS - TERRELL  
COUNTY GEORGIA STALE BED PLANTING**

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**Abstract**

Comparisons of Stale Bed planting practices to conventional cotton have shown positive results in Terrell County, Georgia. Mowing Stalks, Pulling Stalks and planting, and Strip-Till and planting showed feasibility over conventional tillage. Yields were comparable and inputs of time and money can be reduced.

**Introduction**

Reduction in available time and increased costs are prompting farmers to cut corners. Stale bed planting is an alternative crop tillage system. Tillage trials were established to determine various methods compared to conventional tillage (extensive land preparation). Cotton was planted following cotton planted flat the previous year. Stalks were mowed in the fall of the year at approximately four inches. Prior to planting, stalks were pulled using a Sundance Stalk Puller. Three comparisons were made to conventional cotton on a Greenville type soil which is a well drained soil with a high sand content. Generally, this soil is known as a "Heavy Red Soil." Plots included two replications of Conventional Planting, Mow Stalks and Plant, Mow Stalks-Pull Stalks and Plant, and Mow Stalks-Pull Stalks-Strip Till and Plant. The cotton was planted with a conventional John Deere Planter without coulters in front of the opening discs. Plots were six row plots (1.1 acres), irrigated, Paymaster 1220, Round-Up Ready with Boll Guard. All plots were treated the same with regard to fertility, water, insecticides and seeding rate.

**Observations**

Stand counts varied because of poor soil seed contact in the just-mowed plots. Conventional cotton started off quicker than all other plots but, by the latter part of the season, all other plots had grown to the same height. Visual observations appeared to show negligible differences in boll load. Conventional cotton cut-out earlier than all other plots. There seems to be no significant differences in yield comparing Conventional cotton to Mow Stalks-Pull Stalks and Plant, and Mow Stalks-Pull Stalks-Strip Till and Plant. Mow Stalks and Plant had a reduced yield and is attributed in part to a poor stand due to poor seed-soil contact. A coultter in front of the planter could possibly help this problem. Stale bed planting can be comparable to

conventional planting and may reduce tillage costs by \$30.00 per acre or more. The test described here was a one year test but a similar test four years ago showed comparable results when comparing conventional cotton to Mow Stalks and Plant. Conventional Cotton was used as a comparison. Mow and Plant was 78 pounds less, Mow-Pull and Plant was 9 pounds better, and Mow-Pull-Strip Till and Plant was 50 pounds better than the Conventional Planted Cotton.

Table 1. Plant populations for various tillage methods.

<b>Plant Population</b>	
Planting Method	Plants Per Foot
Conventional	3.3
Mow	1.8
Mow-Pull Stalks	2.2
Mow-Pull Stalks- Strip Till	2.6

Table 2. Yield results for various tillage methods.

<b>Plot Results</b>	
Planting Method	Yield Per Acre
Conventional	879 lbs.
Mow	801 lbs.
Mow-Pull Stalks	888 lbs.
Mow-Pull Stalks- Strip Till	929 lbs.