

## Adding Cotton Plants to Hail Damaged Cotton Using RTK/GPS Guided Equipment (Field 5F)

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**Objective:** Compare cotton lint yield and production value of late replanted cotton to a treatment whereby existing, severely damage, cotton plants are overseeded using a RTK/GPS guided tractor.

**Methodology:** A severe hail event on 17 June prompted the decision to replant a cotton irrigation experiment. A 22 acre, pivot irrigated area was divided into two pie shaped wedges. The entire area was replanted with one of four cotton varieties in random 4-row plots. The varieties included Beltwide50R, ST2448R, PM2280R, and PM2167R and were planted on 23 June. Both the original and the second plantings were with a RTK/GPS guided tractor. The original hail damaged cotton planting was mechanically destroyed in one pie shaped area. Therefore, comparisons of **late** planted to **early + late** plantings could be made. A one-inch irrigation was made following planting and an additional one-inch irrigation occurred in July. Hand samples were harvest from four replicates of each **variety x planting scenario** combination and samples ginned and fiber analysis obtained.



Fig. 1. Overseeding of hail damaged cotton on 21 June 2005 with an RTK/GPS guided tractor.

**Results:** Figures 2 and 3 show relative yield and production value (loan value x yield), respectively, of the eight treatments. In each case, overseeding hail damaged plants resulted in significantly higher total lint yield and production value that a “clean” late planting. Also, the PM2280R variety produced significantly higher lint yield and total production value than the Beltwide50R and Stoneville2448R varieties. Although complications in pest control and harvesting may occur, overseeding a late hail damaged cotton crop may be a viable alternative.

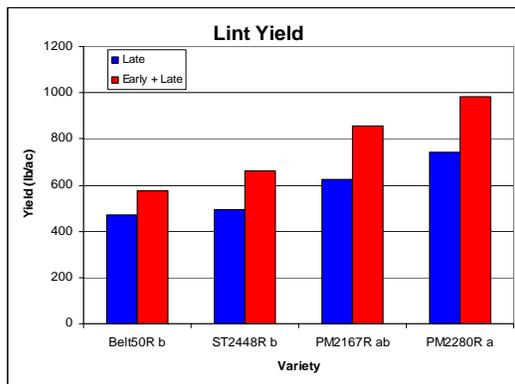


Fig. 2. Cotton lint yield of late and double planted cotton at the Helms Farm, 2005

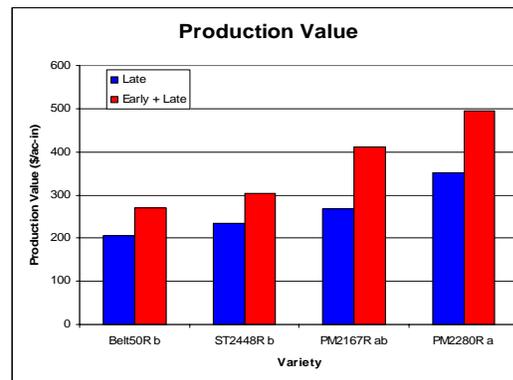


Fig. 3. Cotton lint value of late and double planted cotton at the Helms Farm, 2005.