

# **ARKANSAS CORN AND GRAIN SORGHUM BOARD**

## **Progress Report July 2008**

**Title:                   Optimizing Soil Fertility Requirements for Corn**

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Corn was planted under different tillage systems at the Lon Mann Cotton Research Station at a density of 30,000 plants per acre. Starter fertilizer and incremental nitrogen rates were applied as scheduled. Tissue samples were collected and are being processed.

A test was established at the Rice Research and Extension Center near Stuttgart to assess the yield response of corn to varying zinc application methods: foliar, in-furrow, and broadcast.

Tests were established at The Northeast Research and Extension Center near Keiser and at the Southeast Research and Extension Center near Rohwer to validate current nitrogen recommendations under clayey soils. Three hybrids were planted, with nitrogen rate equivalent to 0, 50, 100, 150, 200, 250, 300, and 350 lb N per acre applied in a 2-way split for the 50, 100, and 150 lb N/acre and on a 3-way split for the 200, 250, 300, and 350 lb N/acre treatments. The third split was applied the week of tasseling. Whole plants samples have been collected and will be analyzed for nitrogen and other nutrients.