## PLANT MAPPING FOR COTTON CULTIVAR MATURITY CLASSIFICATION Tyler B. Painter Texas Tech University Lubbock, TX Craig W. Bednarz Bayer CropScience Lubbock, TX Dick Auld Glen Ritchie Texas Tech University/Texas AgriLIFE Research Lubbock, TX

## <u>Abstract</u>

Maturity is a significant part of cotton production and can affect yield, quality, and suitability to an environment. Field experiments were conducted in 2010-2011 with ten cotton cultivars in a randomized complete block design with four replications in two locations. The objective of the experiment was to determine maturity across environments using height; nodes; nodes above first square, white flower, and cracked boll; and end of season within-plant boll distribution. The whole-plot lint and the lint from each zone and uppermost fraction were measured by HVI and AFIS to determine the fiber properties. In 2010, some cultivars showed strong significance between early, mid, and late maturity, while other cultivars did not differ significantly between the three stages of maturity. Nodes above white flower measurements were not closely related to boll distribution patterns.