## THE QUALITY OF TEXAS PLAINS COTTON: RECENT ACHIEVEMENTS AND CURRENT CHALLENGES Mourad Krifa The University of Texas at Austin Austin, TX

Austin, IA

## <u>Abstract</u>

This research evaluates the successes and identifies the challenges related to the quality of the Texas plains cotton crop, and its performance in the high-value added ring spinning application. In recent years, we have witnessed the Texas plains becoming a more abundant source of near-long staple upland cotton than any other growth region of the cotton belt. This emerging high-quality fiber has a legitimate claim for a share of the high-value added international market. Commercial bales with targeted properties determined based on the improving quality patterns were purchased from 5 successive crops and thoroughly tested for fiber quality and spinning performance. Cotton bales from California, having similar HVI properties, were also tested and used as benchmark to evaluate performance in ring spinning. The results show a non significant effect of bale origin on ends-down during spinning and on yarn quality, when controlling for HVI properties. These results indicate that when comparable combinations of HVI properties were tested, Texas plains cottons performed as well as market benchmarks. The results also suggested a possible "bale origin\*micronaire" interaction. Although this interaction was not found to be statistically significant in these trials, its nature and amplitude will constitute the focus of subsequent research.

## **Acknowledgements**

This research was funded, in part, by the Food and Fibers Research Grant Program administered by the Texas Department of Agriculture, and by Cotton Inc., Texas State Support.