

# **1458 On-farm agronomic and economic evaluation of stacked-gene cotton cultivars in the High Plains and Coastal Bend regions of Texas**

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Cultivar selection has always been one of the most important decisions made by the cotton (*Gossypium hirsutum* L.) grower. Because of the rapid introduction of new cultivars/technologies into the marketplace today, growers are forced to make cultivar selection decisions with less information than in the past. Traditional small-plot cultivar testing programs are inadequate in scale and design to investigate the economic impact of new cultivars/technologies. Consequently, an on-farm, large-plot cultivar testing program was developed by Texas Cooperative Extension cotton agronomists. Trials were conducted in the Texas High Plains and Coastal Bend regions. For scientific validity, three replications of each cultivar were included at each site in a randomized complete block design. Plot dimensions ranged from 0.25 to 1.0 acre in size. All trials were machine harvested with grower equipment. Plot weights were determined at harvest using a weighing boll buggy. Lint samples were obtained from each plot for turnout, fiber quality analysis, and loan value determination. Statistical analysis for cultivar comparison was conducted in SAS utilizing the PROC Mixed procedure.