DEVELOPMENT OF CORE SSR MARKERS FOR GOSSYPIUM GERMPLASM CHARACTERIZATION

John Z. Yu **USDA-ARS College Station, TX David Fang USDA-ARS** New Orleans, LA Mauricio Ulloa **USDA-ARS** Shafter, CA **Richard G. Percy** Russell J. Kohel Lori L. Hinze James Frelichowski **USDA-ARS College Station, TX** Jaemin Cho **USDA-ARS** New Orleans, LA **Todd Campbell USDA-ARS** Florence, SC Peng Chee **University of Georgia** Tifton, GA Jinfa Zhang New Mexico State University Las Cruces, NM **Ibrokhim Abdurakhmonov Abdusattor Abdukarimov Institute of Genetics and Plants Experimental Biology** Tashkent, Uzbekistan Don C. Jones **Cotton Incorporated** Cary, NC

<u>Abstract</u>

A set of 105 portable DNA markers were carefully developed to provide a common basis for systematic characterization of cotton germplasm collections in the U.S. and throughout the world. The 105 PCR-based SSR markers of different origins were evenly distributed on each of the 26 cotton chromosomes with every chromosome arm having 2 markers at approximately 30 cM intervals. Each of these markers was examined on a standardized germplasm panel consisting of 12 diverse *Gossypium* genotypes. This set of DNA markers is presented to serve as an initial set of core DNA markers for global germplasm characterization. The initial core set can be modified and expanded as new DNA markers such as SNP markers are developed, characterized, and located in the cotton genome.