1999 OUTSTANDING GRADUATE STUDENT IN COTTON RESEARCH IN ARKANSAS

Sponsored by Cotton Incorporated

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Since much of the cotton research is conducted by graduate students, this award recognizes a student each year whose research is judged to be the most notable from among all the student projects within the state being conducted for the award year (see list in this publication). Submission of graduate student research projects for this competition carries the added benefit of providing a compilation of the some of the current cotton research in the state that often is overlooked and is not readily available to other members of the Arkansas cotton fraternity. Graduate students are the future workers and leaders in our cotton industry, therefore, recognition of outstanding research accomplishment by a yearly award is appropriate.

The selection committee consisted of representatives from the Arkansas Cotton Support Committee, University of Arkansas Cooperative Extension Service, USDA-ARS (Stoneville, MS), and private industry (Paymaster Cottonseed, Lubbock, TX). Fifteen graduate student projects were evaluated, each consisting of a two-page summary of the research. The 1999 winner was Jinfa Zhang, advised by Dr. Mac Stewart, for his research, "Mendelian and Molecular Genetics of Cytoplasmic-Nuclear Interactions in Cotton." Among other results in this research, Jinfa determined the mode of inheritance of two genes that restore fertility to male sterile lines of cotton in which the sterility is induced by the cytoplasm (maternally inherited, or CMS), and he determined that the genes were closely linked. He also identified molecular markers associated with the restorer genes. In addition, he identified and cloned several gene transcripts that were associated with either the sterile or fertile condition. CMS/restorer systems are used in the production of hybrid seed. Jinfa received a certificate and an award of $500 for his research.