

Dr. David Fang Receives 2023 Cotton Genetics Research Award

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MEMPHIS, Tenn. – Dr. David Fang, geneticist for USDA-ARS at the Cotton Fiber Bioscience Research Unit in New Orleans, is the 2023 Cotton Genetics Research Award recipient.

The announcement was made today during the 2024 Beltwide Cotton Improvement Conference, which convened as part of the National Cotton Council-coordinated 2024 Beltwide Cotton Conferences in Fort Worth. Fang, who was selected by the Joint Cotton Breeding Committee, received a plaque and a monetary award.

Dr. Jane Dever, Professor of Cotton Breeding and Associate Center Director for Texas A&M AgriLife Extension, one of Dr. Fang's nominators, said that he has made tremendous contributions to the development of molecular markers which have been made publicly available and are utilized in practical cotton breeding and realized potential in a population derived from crosses made by USDA-ARS colleagues. Dr. Fang also has constructed numerous genomic maps of cotton and identified numerous markers for various agronomic traits.

Each of Dr. Fang's nominators spoke to his work with the Multi-parent Advanced Generation Inter-Cross (MAGIC) population of cotton and the discoveries that have stemmed from his research. The population was created from crosses done by Drs. Jenkins and McCarty. Dr. Fang and his team in New Orleans have sequenced the genomes of the entire population and identified genes and genetic loci that control fiber quality and other agronomic traits. Dr. Fang's research with the MAGIC population has spurred additional research and investigations related to disease resistance and drought and salt tolerance in cotton.

Dr. Kater Hake, former vice president of Agricultural & Environmental Research at Cotton Incorporated, another of Dr. Fang's nominators, spoke to his ability to construct and lead a cohesive team of researchers who have been highly successful and innovative. The work

accomplished at Dr. Fang's lab has opened the doors for improvements in fiber quality for not only public breeders but commercial breeders as well.

Dr. Fang has authored or co-authored 121 scientific journal articles to date and five book chapters, and has served as editor for both Cotton and Cotton Fiber: Physics, Chemistry and Biology which were published in 2015 and 2018, respectively. Cotton provided a comprehensive update to all aspects of cotton research since the first edition was published in 1984 and Cotton Fiber: Physics, Chemistry and Biology was the first book to focus solely on cotton fiber.

Dr. Fang is a member of multiple scientific and professional societies and serves as an academic editor for seven international journals. He has received numerous awards throughout his career among them being named a Fellow by the Crop Science Society of America in 2023.

Dr. Fang earned his bachelor's degree from Jiangxi Agricultural University in China and his master's and Ph.D. from Huazhong Agricultural University in China. He was a molecular cotton breeder for Delta & Pine Land Company from 1998 to 2008 before joining USDA's Agricultural Research Service as a research geneticist in Stoneville, MS in 2008. In 2009, Dr. Fang transitioned to Research Leader at the Cotton Fiber Bioscience Research Unit in New Orleans, LA where he recruited a "world-class research team" focused on fiber quality improvements through plant breeding.

The annual Cotton Genetics Research Award was established in 1961 by U.S. commercial cotton breeders to recognize and encourage basic research in cotton genetics, cytogenetics, and breeding. It is administered by the Joint Cotton Breeding Committee consisting of representatives of the NCC, the USDA, state experiment stations, Cotton Incorporated, and commercial breeders.

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