Scheffler Receives 2014 Cotton Genetics Research Award

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SAN ANTONIO – Dr. Jodi Scheffler, a geneticist with USDA's Agricultural Research Service who has compiled an impressive record of outstanding service in basic genetic research, is the recipient of the 2014 Cotton Genetics Research Award.

The announcement was made here on January 6 during the 2015 Beltwide Cotton Improvement Conference, which convened as part of the National Cotton Council-coordinated 2015 Beltwide Cotton Conferences. In recognition, Dr. Scheffler received a plaque and a monetary award.

Dr. Scheffler, based at the Jamie Whitten Delta States Research Center in Stoneville, Miss., currently is lead scientist of a project aimed at developing ultra-early *Verticillium* resistant elite lines. Since 2010, though, she also has served as project coordinator for USDA-ARS' Pakistan Cotton Productivity Enhancement Program, which is addressing the threat of Cotton Leaf Curl Virus (CLCuV) which USDA has listed as a critical threat to U.S. agriculture. Specifically, she has been screening cotton accessions from the U.S. cotton germplasm collection for CLCuV disease and incorporating resistance into material adapted to U.S. production systems.

One of her nominators, Dr. Steve Calhoun, Bayer CropScience's international cotton breeding manager, said that although the CLCuV assignment was only part of her body of work, Dr. Scheffler should be recognized for her farsighted and productive work in preparing the U.S. germplasm base for the potential arrival of this devastating virus.

"Our India team, as well as a host of public and private breeders, have struggled unsuccessfully for years to develop germplasm with a meaningful level of resistance," Calhoun said. "I was therefore extremely excited to hear that Dr. Scheffler had developed material in Pakistan showing a high level of resistance over multiple years. She was empowered to do this through resources provided by USDA and the National Cotton Council (NCC), specifically the cotton germplasm collection and cotton winter nursery. Discovering and developing CLCuV resistance is a testament to Dr.

Scheffler's high scientific credentials, which are uncommon enough."

Over the course of her career, Dr. Scheffler's breeding research has improved the overall utility and value of cotton (both fiber and seed). She has developed risk assessment procedures in a biotechnology environment, provided new marker resources to the cotton community, improved efficiency of nematode resistance breeding projects, enhanced natural host plant resistance to pests, and investigated adding economic value to cotton seed as a high quality protein animal feed.

Prior to joining USDA-ARS in 1999, Dr. Scheffler conducted postdoctoral work and worked as a scientist and technical consultant at institutions in Germany and the United Kingdom. She chaired the Beltwide Cotton Improvement Conference in 2006 and in 2010 co-chaired a special session at that Conference to exchange information on the status of nematode research.

Dr. Scheffler earned bachelor's and master's degrees from Iowa State University and her Ph.D. in plant breeding and genetics from the University of Wisconsin-Madison. She has 25 years of post-graduate research experience and has authored or co-authored 44 publications including 36 peer-reviewed articles, three invited book chapters, and three patents.

U.S. commercial cotton breeders have presented the Cotton Genetics Research Award for more than 40 years to a scientist for outstanding basic research in cotton genetics. The Joint Cotton Breeding Committee, comprised of representatives from state experiment stations, USDA, private breeders and the NCC, establishes award criteria.

Source: Nation Cotton Council