ICGI Germplasm & Genetic Stocks Workgroup Co-Chair Candidate

Lori Hinze

Research Geneticist
USDA-ARS Crop Germplasm Research Unit
College Station, Texas, USA

I am a Research Geneticist with the U.S. Department of Agriculture, and my research focuses on characterizing and evaluating the diversity within cotton genebanks and using that knowledge to develop germplasm with enhanced agronomic traits, fiber quality, and/or seed quality. I am a self-motivated person and work well in groups with a diversity of backgrounds. I have enjoyed opportunities through recent research projects to work with international teams to accomplish analysis of cotton diversity using a SNP array as well as genetic analysis of agronomic and fiber traits in Pakistan. Through the international scope of ICGI, I am interested in promoting the exchange of germplasm and continuing to understand the diversity that is held in different genebanks for the benefit of the global cotton community. I would encourage collaborations to better understand the genetic relationships within the global collection of Gossypium and to determine to what extent the germplasm is distinct or is duplicated across genebanks. It is also important to recognize gaps that may exist across all genebanks. Can plant exploration trips be organized to collect germplasm that is not available in any genebank? If native cotton plants are growing ex situ in environments threatened by development or climate change, what can we do to conserve the germplasm? Preserving and fully describing the genetic resources we have provides a sound foundation for the world-wide agricultural future of cotton. With a thorough understanding of the resources that are available, we are better equipped to work towards ICGI's mission to increase our knowledge of the structure and function of the cotton genome.