

Ishwarappa, S. Katageri, Ph.D.

Graduated in B.Sc ( Agriculture) and post graduated M.Sc and Ph.D in Genetics and Plant breeding. Through pest resistance breeding in cotton, since 1987 at University of Agricultural Sciences Dharwad, India developed four cotton varieties and four hybrids for commercial cultivation in south zone of India and registered 3 germplasm lines with NBPGR, India. Through fibre genomic studies using isogenic fibre mutants and normal in both tetraploid and diploids, key genes responsible for fibre cell initiation and elongation are identified and validated. QTLs for fibre and seed cotton yield contributing traits are detected using RILs of interspecific tetraploid hybrid by genotyping with 63K SNP chip and through association mapping with Indian Cotton Germplasm, genotyping with the same chip. Received funding for all these researches was on competitive mode from Indian Council of Agriculture Research, Department of Biotechnology, GOI and Cotton Corporation of India. The research outcomes were presented in many ICGI and World Cotton Conferences and published in peer reviewed journal. By working with Dr Jean Gould, and interaction with Dr. David Stelly during my stay at Texas A and M University (3 months as visiting scientist) ,with Dr Powar at University of Nottingham (6 months as Common wealth fellow) and with Dr. Andrew Patterson at University of Georgia (2 months as visiting scientist) gained sound knowledge in cotton research. PG scholars, 25 for M.Sc and 10 for Ph.D in Genetics and plant breeding/ Plant biotechnology worked under my supervision were part of all these researches. Present research is on genome editing through CRISPAR-CAS9 for suppressing gossypol in cotton seed. Awards, ICAR National Award for Outstanding Inter-disciplinary Team Research in crop improvement for increasing cotton productivity, Shri. Ramanath Iyer National Award for cotton fiber quality improvement, from Indian Society for Cotton Improvement Mumbai and Professional Excellence Award by Society for Cotton Research and Development, Hissar are received. Other reorganizations are Fellow of Indian Society for Genetics and Plant Breeding, New Delhi and Cotton Research and Development Association, Hissar.

As ICGI works with the aims of global knowledge and resource integration for technology and resource development in cotton through coordinated research planning, as ICGI Co Chair of Germplasm and Genetic stock work group, I work with chair on following aspects.

- Communication on global germplasm and genetic stock status among global cotton scientists in public and private sector

- Development of common policy for easy exchange of germplasm and benefit sharing from outcome of the useful technology using germplasm and genetic stock
- Formulation of common germplasm exchange global platform
- Finalization of core cotton germplasm across cotton countries of this platform
- Generation of common fund for genetic and phenotypic diversity assessment of this world cotton germplasm using genomics and phenomics tools
- Planning for generation of diverse genetic pools through systematic crosses and distribution
- Monitoring and Evaluation of utilization of the genetic resource