

Dr Rakesh K. Srivastava leads pearl millet genomics and molecular breeding team, ICRISAT r.k.srivastava@cgiar.org

Dr Rakesh K. Srivastava leads the pearl millet genomics and molecular breeding team at ICRISAT. He is extensively involved in the generation of cutting-edge genetic and genomic resources, mining, mapping and deployment of QTLs/genes for various biotic, abiotic, grain and fodder quality-related traits in pearl millet as a global mandate. He led a team comprising of national and international partners to define the heterotic gene pools in pearl millet for the first time. He also led the pearl millet downy mildew genome sequence. He contributed significantly to the pearl millet genome sequence work including the development of resources such as the world association mapping panel, representing the global pearl millet genetic diversity; mapping population parents and mapping populations. He also contributed the world reference germplasm Tift23D₂B₁-PI-P5 for deep sequencing which now serves as a world reference genome for pearl millet. He is currently working on the development of new genetic stocks, functional genomic resources (such as TILLING), trait mapping (Fe/Zn, low glycemic index (GI), nitrogen use efficiency, fertility restoration, Striga, low P) and deployment of these traits in elite genetic backgrounds.

Some of the key translation genomics outputs from Rakesh's team include mega pearl millet cultivar HHB 67 Improved 2 (grown in more than 850,000 ha every year), and Maru Sona- the first molecular breeding product to be released by the State of Gujarat.

Rakesh has over 100 publications, including in Journals like Nature Biotechnology. Rakesh obtained his Ph.D. degree in Genetics from the Indian Agricultural Research Institute (IARI) in the year 2004. He worked with Syngenta seeds for two years after his Ph.D. before joining ICRISAT in the year 2006. He is with ICRISAT for the past 15 years and is currently working as a Principal Scientist (Genomics, Pre-breeding and Bioinformatics).