Resume

Present Address	Permanent Address
Surender Reddymalla	Village: Cheruvuannaram,
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Academic Qualification:

M.Sc. (Botany): Completed masters in the year of 2007 with 70% marks (1st division) from PG College of Science Saifabad, Osmania University, Hyderabad, India.

B.Sc. (Biology): Completed bachelor degree in the year of 2003 with 63% marks (1st division) from Nagarjuna Degree College, Nalgonda district Telangana state, India.

Other Qualifications:

Computer literacy: Post Graduate Diploma in Computer Applications (PGDCA) – 1st grade, from Siddaganga Info systems, Hyderabad.

PROFESSIONAL EXPERIENCE:

2018 to 2024: ICRISAT Genebank, Patancheru-502324, Telangana, India

Position: Scientific Officer (ICRISAT, Genebank):

I acquired good knowledge on all ICRISAT mandate crops, (Chickpea, Pigeonpea, Groundnut, Pearl millet, Sorghum, Finger millet, and small millets. My primary responsibilities revolve around regeneration and characterization of pigeonpea germplasm.

Highlights of significant contribution:

✓ Introduction of new pigeonpea germplasm from other institutes globally, grow out testing of new germplasm conducted at ICRISAT quarantine fields.

✓ About 7325 accessions of pigeonpea germplasm have been regenerated and seed multiplied based on poor viability (<80%), less quantity (< 100 gm) and first-level safety duplication. Since pigeonpea is an often- cross-pollinated crop grows in an insect-proof to avoid cross-pollination by honey bees. This is crucial in maintaining the genetic integrity of accession.

✓ Actively involved in the characterization of new germplasm received from different countries and data missing accessions.

✓ Implemented digitalization of pigeonpea germplasm characterization using tough pads.

✓ Actively involved evaluation of trait-specific germplasm (sterility mosaic virus, wilt resistant, pod borer and pod fly resistance, waterlogging tolerant, photoperiod insensitivity and early maturity accessions.

✓ Around 600 pigeonpea germplasm were evaluated for assessment of genetic diversity for yield and grain nutritional quality.

✓ Evaluation of Pigeonpea mini core 146 accessions for agro-morphological and grain nutritional traits evaluated during 2021 and 2022 Rainy.

✓ Actively involved in the planning and conducting experiments of pigeonpea germplasm, data recording, processing and analysis of data using different statistical packages like GenStat, R software, and Tableau software.

✓ Actively involved in the planning and attempting crossings and evaluation of F_1s and trials data recording and analysis of the results.

✓ Supported validated pigeonpea analysed data for preparation of reports and publications.

✓ Supported in the development of standard operating procedures seed threshers and calibration for weighing balances.

✓ Involved in updating of pigeonpea regeneration and characterization SOP's.

✓ Additionally, supported the evaluation of 3140 accessions of the sesame germplasm core set, planted in augmented design in 2022R to characterize (15 qualitative and 17 quantitative) descriptors traits characterization for the Sesame core project funded by

DBT and in collaboration with ICAR-NBPGR New Delhi. Collected data was validated and analysed using GenStat version 23.1 and R software.

✓ Actively involved in the organization of sesame germplasm field day by Genebank-ICRISAT on 28th Oct. 2022, a total of 18 research scientists and NARS participants attended within India and selected trait-specific germplasm for breeding programs.

✓ Currently, supporting the evaluation of sesame genotypic core set around 1150 accessions, 32 phenotypic descriptor traits characterization during the 2024 Summer

✓ Currently, supporting in the screening of around 150 sesame accessions for waterlogging stress at the ICRISAT-managed waterlogging facility during the 2024 summer season.

General contributions:

✓ Attended workshops and in-house training such as Patro-analysis (10th Jan. 2023), SMTA awareness (20th June 2023), and Seed dormancy (25th July 2023) sessions related to genebank activities.

✓ Timely collaboration with research technicians, field attendants, and interns to ensure a smooth work environment and functioning of planned activities.

✓ Involved in the preparation of field boards, posters, and Pigeonpea display seed material multiplication.

✓ Taken initiative to perform additional responsibility of maintaining inventory transactions and records of genebank consumable store material and maintaining monthly attendance records of semi-skilled staff for sending to the Human Resources department.

ICAR-Indian Institute of Rice Research

Senior Research Fellow (Department of Genetics and Plant Breeding) 2012-2018

✓ DUS characterization of around 4000 Rice landraces/farmers' varieties, New candidates and VCK's under PPV & FRA funded project entitled "DUS tests in Rice".

✓ DUS characterization of ICAR-IIRR released High Zinc (>22 ppm) varieties *Viz*: DRR Dhan 45, DRR Dhan 48, and DRR Dhan 49.

- ✓ Experience in multi-location evaluation of rice germplasm at ICAR-Indian Institute of Rice Research
- ✓ Screened a wide range of rice genotypes of about 540 germplasm for agro-morphological traits with heat stress, the *rabi* crop is sown in the month of November-December which is exposed to severe hot summer temperatures ($36\text{-}45^0$C) during the flowering stage causing spikelet sterility.
- ✓ Identified heat-tolerant lines screened for fertility restorer genes *Rf4* and *Rf3*
- ✓ Attempted crossing of 43 heat-tolerance lines with three CMS lines by using L X T mating design to develop F1 hybrids.
- ✓ Developed around 129 heat tolerance F_1 hybrids and evaluated these F_1 under severe hot summer, temperatures ($36\text{-}45^0$C) during the flowering stage and data recorded for 10 agro- morphological traits, identified elite climate-resilient rice hybrids having heat tolerance and high yield potential.
- ✓ Recorded daily weather data during crop growing seasons at IIRR farm at ICRISAT campus.
- ✓ Involved in Nucleus and breeder seed production of ICAR-IIRR released varieties.

VIBHA SEEDS PVT., LTD., Hyderabad

Research Associate (Department of Cereals): 2010-2012
- ✓ Experience in germplasm conservation, regeneration, characterization, and documentation of maize and sorghum germplasm.
- ✓ Actively involved in identification of trait-specific sources for economically important traits of maize and sorghum germplasm.
- ✓ Possess good knowledge regarding planning of crossing blocks and conducting field trials of maize and sorghum germplasm.
- ✓ Involved in conducting of field trials, data recording, validation, analysis and interpretation

CERTIFICATION TRAINING COURSES

- ✓ Completed in-house training organized by the ICRISAT FES on "Handling of plant protection chemicals for better safety and environment".

- ✓ Attended the "International Conference on innovation to transform drylands" from 21st to 23rd Feb. 2023, ICRISAT, Patancheru, Hyderabad.

- ✓ Attended a one-month virtual training program on "Data Science & Machine Learning with Python" from 10th Feb. to 7th March 2024".

- ✓ Attended the virtual "Hands-on Training Program on Agricultural Statistical Analysis & Data Visualization using R software" from Jan 4th to 14th Feb. 2024.

SKILL ON STATISTICAL ANALYSIS PACKAGES

Possess very good knowledge of data analysis using statistical software such as GenStat, R software, Tableau etc. to estimate diversity, correlation; cluster dendrogram and PCA.

TECHNICAL SKILLS

Breeding Skills:
Hybridization
Mating designs
Conducting Multilocation Trails
Pollen fertility studies

Instrumental skills:
DNA Isolation
PCR
Gel Electrophoresis
Calibration of R25+ automated seed counter

Computer skills:
Operating skills in windows based packages
MS Office