

AICRP on Management of Salt Affected Soils and Use of Saline Water in Agriculture

- 1 Research Station Name : Agricultural Research Station, Gangavati.
- 2 Date of Establishment : 1973 UAS Dharwad and shifted to ARS Gangavati in 1988
- 3 City : GANGAVATI
- 4 Pin Code : 583227
- 5 Zone : Zone-3
- 6 Phone Number : 08533-271030
- 7 Email : swsgangavati@gmail.com
- 8 Website :
- 9 Brief background information about the scheme : This project was established at UAS Dharwad in the year 1973 to evolve region specific technologies suitable for Malaprabha, Ghataprabha and Tungbhadra irrigation commands. Due to the extensive salinization and water logging in TBP command, the project was shifted to Agricultural Research Station, Gangavati to serve the needs of the TBP irrigation command from 1988 onwards.
- 10 Brief highlights of achievements : Initially, the project activity was confined to ground water survey, planning conjunctive use of saline water in agriculture. Notable contribution was the earliest report of the fluoride toxicity in ground waters in Gadag and Mundaragi belt. Ground water survey for irrigation of entire Dharwad, Bijapur, Raichur, Bellary, Davanagere, Gulburga and Gadag districts completed. The guidelines on use of poor quality waters were worked and communicated. Conjunctive uses of poor quality water worked out


particularly for cotton which revolutionized as the farmers located in tail end started using poor quality ground water for irrigating cotton for early planting. This practice lowered the water table, helped increased conjunctive planning of poor water resources in agriculture. Later on the centre contributed significantly in identification of salt tolerant species (wheat, cotton, mustard, sunflower, sugarcane, rice, sugarbeet etc.) in each crop including medicinal and aromatic plants, nutrient management (organic and inorganic) under salt stress situation. Leaching requirement of saline soils with different water table depths were worked to plan pre-sowing irrigation managements in order to achieve improved germination and crop yield. A significant contribution of the centre was pioneer work on bio-drainage and identification of suitable species for saline and/or waterlogged soils. A pilot project under Indo-Dutch (Phase I and II) was initiated on desiltation with open drain, closed drains, interceptor drains etc. which gave significant regional specific solutions.



In recent years, micro-irrigation techniques (surface, subsurface drip irrigation/fertigation) with or without mulching were worked out for cotton and sugarcane. Most prominent work on Controlled sub-surface drainage, which is one of its kinds in India was established at Gangavathi farm during 2012-13 and being monitored till-date. Also sub-surface drainage with variable lateral outlet head experiment-cum-demonstration plots

were established in farmer's field at village Thimmapur. Assessment and mapping of salt affected soils in Koppal (Gangavathi), Bellary and Raichur districts of TBP command area is completed.

The centre had collaborative research with ICRISAT, Hyderabad, CICR, Nagpur, Director of Oilseeds Research, Hyderabad, Queens University, Canada, DLO/Winand Starring Centre, Wageningen, The Netherlands etc. More than 20 PG students including students from Canada did their M.Sc./Ph.D. research works at this centre. The centre has developed over 35 technologies in the areas of soil, water and crop improvement. In recognition of the contributions made for the effective management of salt affected soils and use of saline water in agriculture and thereby serving the farmers of the command, the centre had the privilege of receiving prestigious awards like National Team Award (2000-01) by the Ministry of Water Resources, GOI and CSSRI Excellence Award (2004-05).

11 Details of the project staff :

Sr. No.	Position Sanctioned	Nos.	Name of Incumbent	Contact No. and Email ID	Photo
1.	Principal Scientist (Soil Sci.) & Head	1	Dr. Vishwanath J.	9448063792 vishwasws@gmail.com	

2.	Scientist (Drainage Engg.)	1	Er. A.V. Karegoudar	6362775897 avkaregoudar12@gmail.com	
3.	Lab Assistant	2	Mr. Prakash Banakar	9741339925 prakashagmaco@gmail.com	
4.	Field Assistant		Mr. Ramappa Talwar	6362879717 talawarfa@gmail.com	