



ICAR-NRM-CCARI-PoP-2023-024
CCARI/Certified Technologies/2023-3

A PACKAGE OF PRACTICES FOR THE CULTIVATION OF SALT-TOLERANT RICE VARIETIES UNDER SALT-AFFECTED SOILS OF THE WEST COAST REGION FOR IMPROVED PRODUCTIVITY AND INCOME

Lead Developer : **Dr. Gopal Ramdas Mahajan**

Associate Developers : R. Ramesh

TECHNOLOGY DETAILS

- The technology package involving **nutrient management, crop establishment methods** and variety significantly improved the grain yield (17.6%), straw yield (45.3%) and **net income (20.8%) over the farmer's practice (FP) of cultivation.**
- The technology saved on the cost of fertilizers by 25% by reducing P and K fertilizers amounts through use of Goa Bio - 1, a PGPR bioformulation.

IMPACT

- Technology was demonstrated on farmers' fields involving a cluster of **35 farmers over a 29 ha area** for two consecutive years. The net income of Rs. 45,275/ha (**38% higher than FFP**) was generated by PoP against Rs. 32,862/ha with the farmers' practice. This led to a generation of an additional income Rs. 12,413/ha.
- There is a potential to generate an additional net income of about Rs. 22 crores by covering 18,000 hectares of coastal saline soils in the state of Goa alone.
- The Goa Bio 1 is produced using an in-house facility and is supplied to farmers and submitted to Agriinnovate for commercialization.

PUBLICATION

- **Mahajan GR, Ramesh R 2023.** CCARI/Technologies/2022-7. (Link - <https://ccari.icar.gov.in/Technology2023-7.pdf>)
- **Mahajan GR, Ramesh R 2022.** ICAR-CCARI/Success story 2022-1 (Link - <https://ccari.icar.gov.in/Successstory2022-1.pdf>)
- **Mahajan GR, Ramesh R 2022.** Nutrient management and crop establishment methods in paddy to improve productivity and income from salt-affected coastal soils: From a fallow land to a bountiful harvest. FAO Global Symposium on Soils for Nutrition, GSOIL4N, held virtually on 26-29 July, 2022, at Rome, Italy.



Control



Technology package



Validation of the technology in farmers field



INDIAN COUNCIL OF AGRICULTURAL RESEARCH

Certified that

Dr. Gopal Ramdas Mahajan

(Lead Developer)

Associate Developer

Dr. R Ramesh

of

**ICAR-Central Coastal Agricultural Research Institute
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has developed the technology

**A package of practices for the cultivation
of salt-tolerant rice varieties under
salt-affected soils of the west coast region for
improved productivity and income**

16th July, 2023
New Delhi

(Rajbir Singh)
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Deputy Director General (NRM)