

Rice based integrated farming system for lowland agroecosystem of Goa



Research, compilation and edition

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Due to small land holdings, rice cultivation is becoming uneconomical in the West coast region of India. Diversification of cropping after the rice both under residual soil moisture and under protective irrigation and integration with animal component seems to be a possible solution to the food and nutritional security of the region. I am happy to note that ICAR-Central Coastal Agricultural Research Institute, Old Goa, Goa is bringing out a Research Bulletin entitled " Rice based integrated farming system for lowland agroecosystem of Goa"

Foreword

highlighting the research achievements of rice based lowland integrated farming system trials carried out by the Institute. Due to the agro climatic condition of the region with an average annual rainfall of 300 cm rice is the main *kharif* crop in majority of the areas. After rice production, under residual soil moisture the farmers are growing pulses and oilseeds. While under assured moisture condition vegetables are in practice to meet out the local market demand. The Institute has evaluated different rice based cropping system over a period of time. The efforts made to standardise the lowland farming system model to improve the profitability of farmers are commendable. The model has shown improved productivity through recycling of resources, improvement of soil fertility, employment and confirmed the feasibility of augmenting the profitability of farmers in Goa.

This compilation of four years research achievements entitled " Rice based integrated farming system for lowland agroecosystem of Goa " will serve as a comprehensive document for formulating future research strategies as well as providing relevant information to the researchers, extension workers and the farming community. I compliment and congratulate the authors for their sincere efforts in compiling this technical bulletin. This bulletin will serve as a reference material for those involved in farming system research, students, farmers and policy makers.

Preface

Rice cultivation is widely practiced in low-lying areas of West coast region. The agro-climatic conditions prevailing in the region are ideal to realise higher productivity of the crop. However, during the recent years owing to labour scarcity coupled with meagre returns, the cropped area under rice is dwindling, forcing the society to import the essential commodity. Although there is wide scope to cultivate variety of pulses, vegetables and fruits in rice fallows both under residual soil moisture situations and under protective irrigation, the region is importing these essential commodities from the neighbouring areas to meet the food requirement of the region. Similarly there is a huge demand for milk, eggs, meat, pork and fish in the region as the region is also supporting both the national and international tourism in a big way.

As the per capita farm holding of this region is very low, identification and standardisation of integrated lowland farming system will be the possible solution to meet out the food and nutritional security of this region. Keeping this in view, ICAR-Central Coastal Agricultural Research Institute, Goa in association with ICAR-Indian Institute of Farming System Research, Modipuram, has undertaken research for standardisation of integrated farming system. In this regard, different rice based cropping system including pulses, oilseeds, vegetables and commercial crops in integration with dairy animals were evaluated at ICAR-CCARI, Old Goa and the research achievement and salient features are presented in this

technical bulletin.

This Technical Bulletin is a compilation of research work carried out under All India Coordinated Research Project on Integrated farming systems coordinated by ICAR-Indian Institute of Farming System Research, Modipuram. The Research findings and the achievements will help to identify the suitable cropping systems for enhanced productivity and profitability and to provide nutritional security to small and marginal farmers of this region. We sincerely acknowledge the valuable contributions rendered by various scientists, Indian Council of Agricultural Research, New Delhi and ICAR-Indian Institute of Farming System Research, Modipuram for encouraging and funding the research on this aspect.

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AUTHORS

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