

WEATHER TRENDS OF LAST FOURTEEN YEARS (2002-2015)

at

**ICAR – Central Coastal Agricultural Research Institute,
Old Goa**



(Picture – Agro meteorological Observatory at ICAR-Central Coastal Agricultural Research Institute)

Compiled and Edited by

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ICAR-Central Coastal Agricultural Research Institute
(Formerly ICAR Research Complex for Goa)
(Indian Council of Agricultural Research)

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Weather trends of last fourteen years (2002-2015) at ICAR – Central Coastal Agricultural Research Institute, Old Goa



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डॉ. वी.एन. शारदा

सदस्य

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FOREWORD

METEOROLOGICAL parameters play a vital role in judiciously planning and executing water resource development programmes in the country to boost agricultural productivity and minimize erosion hazards. The spatial and temporal distribution of climatic parameters has experienced significant variations in the recent past owing to climate change impacts. The frequency of extreme weather events like droughts, floods, cold / heat waves, hailstorms, thunderstorms, cyclones and tsunamis has significantly increased in Asia and India is no exception. Among the natural and manmade disasters, climate related disasters have a significant impact on the agricultural economy of the country.

Proper analysis and interpretation of weather data paves the way for developing contingency plans and carry out all agricultural operations timely to offset the losses in crop production due to weather aberrations. It gives me a great pleasure to note that Icar-Central Coastal Agricultural Research Institute has critically analysed the meteorological data of one decade to establish trends for weekly, monthly and yearly variations for efficient management of agricultural activities. I am confident that the Technical Bulletin on weather trends would immensely benefit the farmers

and the policy makers to identify the best management practices and adopt appropriate conservation measures to mitigate the impacts of climate change and hydrological extremes especially along the coast and Islands which may otherwise spell disaster for Indian agriculture.

I compliment the authors and the Director of the Institute for bringing out this useful publication for the benefit of farming community and other agencies.

A handwritten signature in blue ink, appearing to read 'V. N. Sharda', with the date '1/3/16' written below it.

(V. N. Sharda)



भाकृअनुप – केंद्रीय तटीय कृषि अनुसंधान संस्थान
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PREFACE

WEATHER and climate are important factors to determine the success or failure of agriculture. All the agriculture operations from sowing to harvest of the crops depend on the mercy of weather. Climate determines suitability of a crop to a particular region while weather plays a major role in the productivity of a crop in the region. The influence of weather and climate on crop growth and development and final yield is complicated by complexity of interactions with crops and the environment during the crop season. It has practical utility in timing of agricultural operations so as to make the best use of favorable weather conditions and make adjustments for adverse weather. The dangers of crop production due to the pest and disease incidence, occurrence of prolonged drought, soil erosion, frost and weather hazards can also be minimized by analyzing the past weather pattern of any region. Therefore, effort was made to compile and analyze the weather data collected for last fourteen years at ICAR-Central Coastal Agricultural Research Institute and to present it in the form of a scientific review for easy and quick reference.

Authors duly acknowledge the invaluable contributions rendered by various research workers and scientists and Indian Council of Agricultural Research, New Delhi for encouraging the research on meteorology. Assistance provided by all the Skilled Supporting Staff and Contractual Staff is also acknowledged for recording daily meteorological observations.

This publication will help as ready reference to the extension officials, researchers and above all farmers of Goa and Konkan region to optimize the time of crop management practices in accordance with the prevailing weather conditions for better crop yield and income generation.

Authors

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CONTENTS

FOREWORD.....	iii
----------------------	------------

PREFACE.....	v
---------------------	----------

ACKNOWLEDGEMENTS.....	vii
------------------------------	------------

◆ Introduction.....	1
◆ Agro meteorological Observatory at ICAR – CCARI	1
◆ Agro-ecological zones in Goa.....	2
◆ Weather data analysis and methodology	3
◆ The Mann-Kendall Trend Test	18
◆ Sen’s Slope Estimator.....	19
◆ Trends in Annual Mean of Meteorological Parameters	19
◆ Economic Significance of Meteorological Parameters	25