

# **Central Research Institute of Dryland Agriculture**

## **ABOUT**

Central Research Institute of <u>Dryland Agriculture</u> in Santoshnagar, Hyderabad, Telangana, India and NRSC is an autonomous society managed by the Ministry of Agriculture, Government of India and in year 1985 it has been converted into a constituent organisation of Indian Council of Agricultural Research. CRIDA upgraded to the All India Coordinated Research Project for Dryland Agriculture, Hyderabad. It is working on the development of suitable technologies to increase the productivity in rainfed areas. The research centre is one of the major organisations within the <u>Natural Resource</u> Management Division of ICAR, responsible for performing the research for betterment of rainfed areas through resource management. Centre is working in field of Integrated Watershed Management Programme, Impact of Climate Chane in <u>Rainfed Agriculture</u> and Adaptation Strategies, Mechanization of Rainfed Agriculture, Integrated Farming Systems in Dryland Areas.

Research	Central Research Institute of Dryland Agriculture
Centre Name	
Centre Type	Central
Governed By	Ministry of Agriculture
Location	Telangana, India
<b>Topic Cover</b>	Integrated Watershed Management Programme, Impact of Climate Chane in Rainfed
	Agriculture and Adaptation Strategies, Mechanization of Rainfed Agriculture, Integrated
	Farming Systems in Dryland Areas
Application	Online & Offline
Mode	
Head	Dr. Suresh Kumar Chaudhari
How to Reach	<u>Telangana, India</u>
Founded In	1985
Website Link	Click Here

## MISSION AND VISION

CRIDA is on a mission for ensuring increased growth and sustainability of rainfed agriculture through the implementation of basic and <u>strategic investigation</u> results combined with institutional and policy innovations.

CRIDA vision is to create Sustainable production systems in rainfed areas for increased income and <u>livelihood</u> security to farmers and landless around the surroundings.

## **DIFFERENT PUBLICATIONS FROM CENTRE**

Some of the published research work of centre. Some of the titles are listed in below table.

#### 1) Published Research Article 2021-2022

1	Water Demand in Maize Is Projected to Decrease under Changing Climate in India.
2	Assessing impact of dry spells on the principal rainfed crops in major dryland regions of India.
3	Assessing the Impact of Climate Resilient Technologies in Minimizing Drought Impacts on Farm Incomes in Drylands.
4	Developing frost prediction models using multivariate statistical techniques for two diverse locations of Northern India.

#### 2) Published Research Article 2020-2021

1	Relationships among carbon isotope composition, growth, and foliar nitrogen in soybean.
2	Advances in Plant Biochemistry for Food Quality and Nutrition.
3	Weed shift and community diversity in conservation and conventional agriculture systems in pigeonpea -
	castor systems under rainfed semi-arid tropics.
4	Algorithms for weather-based management decisions in major rainfed crops of India: Validation using
	data from multi-location field experiments.
5	Spectral Signature-Based Water Stress Characterization and Prediction of Wheat Yield under Varied
	Irrigation and Plant Bio-regulator Management Practices.
6	Pest scenario of Spodoptera litura (Fab.) on groundnut under Representative Concentration Pathways
	(RCPs) based climate change scenarios.

### 3) Published Research Article 2019-2020

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1	Temperature Induced Changes in Anti-oxidative Stress Metabolism in Maize.
2	High Temperature Stress Tolerance in Maize (Zea mays L.): Physiological and molecular mechanisms.
3	Effect of High-Temperature Stress on Ascorbate–Glutathione cycle in Maize.
4	Spectral Signature-Based Water Stress Characterization and Prediction of Wheat Yield under Varied
	Irrigation and Plant Bio-regulator Management Practices.
5	Temperature based phenology model for predicting establishment and survival of Spodoptera litura (Fab.)
	on groundnut during climate change scenario in India.

## **CRIDA VISION 2030**

### 1) Rainfed Agricultural Scenario

Rainfed agriculture is largely exercised in arid, semi-arid and subhumid regions in the Nation. With about 68% of rural population, these areas are also home to 81% of rural poor. In rainfed regions, the yearly precipitation is expected to be lower than the evapo-transpiration demand particularly in arid and dry semi-arid areas. <u>Coarse cereals</u> (85%), pulses (83%), oilseeds (70%), and cotton (65%) are the principal rainfed crops grown in Country.

Rainfed agriculture is examined as a speculation with monsoon while soils in these areas are not only thirsty but also hungry. Rainfed <u>agricultural</u> structure is influenced by both bio-physical and socio-economic features and their interaction.

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## 2) Rainfed Agriculture Research Network

Rainfed agriculture comprises a prime part of Indian agriculture and it necessitate a strong and comprehensive research programme which acknowledge to converting needs of food and nutritional security. Food and Agriculture Organization (FAO) recommended to the high potential of rainfed agriculture which could feed the entire globe by use of enhanced technology. Rainfed fields have been receiving attentiveness from time to time since the first Famine Commission and Royal Commission on Agriculture. However, it was only in 1923 that the first structured and scientific approach to the complication of dry farming research was started.

## 3) CRIDA 2030

Central Research Institute for Dryland Agriculture is targeting on location precise, and need based diversified farming systems in different <u>agro-ecological areas</u> of rainfed fields for increasing production, productivity and profitability. Further, more attempts are being made to assess vulnerability of various rainfed areas to climate change/variability and transform effective adaptation and mitigation strategies.

### 4) Harnessing Science

The Central Research Institute for <u>Dryland Agriculture</u> (CRIDA) has an ordinance which requires harnessing frontier science tools and also participatory approaches for technology establishment. The Institute would attempt to make best use of emerging new technologies like remote sensing, geographical information systems, etc. to attain breakthroughs in technology generation in rainfed agriculture and <u>drought management</u>.

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