



हर कदम, हर डगर  
किसानों का हमसफर  
भारत में कृषि अनुसंधान परियोजना  
*AgriSearch with a human touch*



# “RICEXPERT” ONE STEP TOWARD E – REVOLUTION IN AGRICULTURE



भाकृअनुप-राष्ट्रीय चावल अनुसंधान संस्थान, कटक, ओडिशा  
ICAR-National Rice Research Institute, Cuttack, Odisha

## Introduction

There exists a sizable yield gap between attainable and farm level yield across ecologies, regions within ecologies and crop seasons in all rice growing areas of India. Technology transfer to farmers and research-extension-farmer linkages play a vital role to bridge the yield gaps. Information and Communication Technologies (ICTs) play an important role in the dissemination of agricultural technologies through different types of ICT tools. In the present scenario, mobile applications are having wider coverage among farmers and village level extension workers. Since uses of smart phones in villages by the farmers and youths are increasing day by day, the mobile app ‘RiceXpert’ created by ICAR-NRRI is serving as a powerful platform for disseminating agricultural technologies in easiest possible way and has created a revolutionary change in mobile technology for usage in agriculture.

## General information on RiceXpert

Mobile app ‘RiceXpert’ (Version : 1.6 ), developed by ICAR-NRRI, Cuttack in Android platform (Android 4.0.1 and above ) is a real time tool for solution of insect pests, nutrients, weeds, nematodes and disease-related problems. This app also deals with rice varieties, farm implements and post-harvest related problems of rice farmers. Other components such as information about news, fertilizer calculator, weather, e-rice marketing, announcement and e-advisory services, frequently

asked questions on the related subject, team involved, etc. are also included (Fig. 1). The e – marketing module of this app provides a platform to the farmers and input dealers through which they can sell and buy farm produce and inputs avoiding the traditional marketing channel particularly middleman.

The app has web-based application systems which facilitates flow of information from the farmer to panel of experts through SMS. Farmers can use this App as a diagnostic tool in their rice fields and make customize queries for quick solution of their problems by sending text, photo and recorded voice that would be addressed by experts on real time basis. This app is beneficial tool for the researchers, students and village level workers working on rice crop. This app has revolutionized technology dissemination and marketing of produce and input by stakeholders.

## Step wise user guide for riceXpert

- \* The mobile app “riceXpert” can be installed from Google play store. Alternatively, mobile app can also be downloaded from the URL: <http://www.nrri.in>
- \* Once installed the user can visit different sections of the app to know about different facets of rice cultivation.
- \* The App has some other valuable features like weather information, news and advisory services like etc.

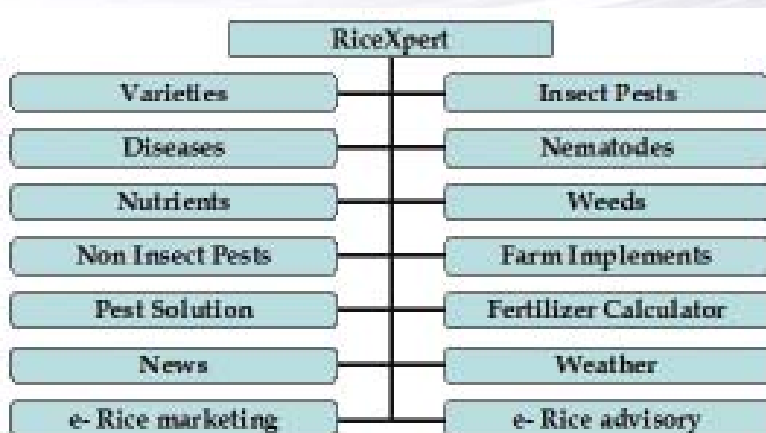


Fig. 1. Schematic diagram of different components of RiceXpert

\* Facilities of sending queries/ expert consultancy are also available through text, photo or voice. For that, the farmers need to register him/her to the app. These queries are addressed by panel of experts on real time basis and get quick solution of their problems through sms

\*Farmers can also use the Pest Solution and Fertilizer

*Calculator* to know the exact dose for precise application of pesticide and fertilizer, respectively.

- \* There is a unique feature “e-marketing module” which provides a strong platform for farmers as well as businessmen and entrepreneurs. Through e-marketing module seller/farmer can display their rice or rice related products to public and buyer can choose the products at the best prices through direct interaction with seller.

## Launching of RiceXpert

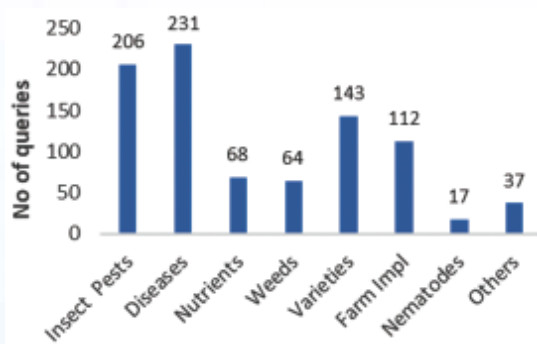
The mobile app was launched by Hon’ble Agril. & Farmers Welfare Minister on 9th May 2016 which was covered in more than 15 important print and electronic media viz. Times of India, Business Standard, Millenium Post, Rural Marketing, ICAR website, face book, NRRI website, Zee TV, OTV, Kalinga TV, and Kanak TV.



*NRRI Mobile app ‘riceXpert’ Launched by Hon’ble Agril. & Farmers Welfare Minister on 9<sup>th</sup> May 2016*

## Interesting Fact

The English version of the app was launched on 9<sup>th</sup> May 2016. Looking into the demand by farmers the Odia version was launched on 23<sup>rd</sup> April 2017 with additional features of *Pest Solution* and *Fertilizer Calculator*, *e-rice marketing* in both versions. At present, more than 15000 users covering India, Ghana, Vietnam, Philippines, Cambodia, Taiwan, Indonesia, Russia etc. have downloaded the app and using it. Around 900 queries have been received from the Indian users through e-rice advisories module of the app covering 16 major states of India and the queries are being



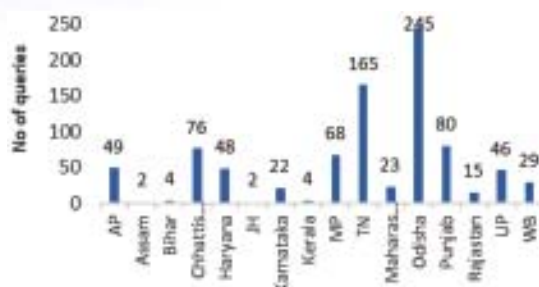
*Category-wise queries received in “riceXpert” app (May 2016 to Oct 2017)*



*Demonstration of “riceXpert” app use to the farmers in “Mera Gaon Mera Gaurav” programme in Pipili block, Puri, Odisha*



*Month-wise (Jan-Oct 2017) no of queries received through riceXpert app*



*State-wise no of queries received through riceXpert app (May 2016 to Oct 2017)*

addressed by the panel of experts from and the solutions are being sent to them through SMS.

## Feedbacks

**Mr Swoyam Singh** – *“Awesome application – A great initiative, very beneficial to farmers- they can avail experts’ advice then and there sitting in his field and that too the advice is from the best of the country”* given the feedback of the app on 2016-05-06.

**Mr Debbie Friolo** (Ph. No. 09091880282) resident of STA. Magdalena, Province: Sorsogon, Bikol region in Philippines sent the query on 2017-01-25 at 12:39 as *“Good afternoon. what can i do with the farmer being hit by the rice farm ny blb. not to get rid of water and lush ground, which is the chemical control drug for losing blb sa farm nya. may spray na ba ang laban sa blb?. thanks po”*.

**Mr. Mahama Adam** (Ph. No. 0244445010) from P. O. Box 1940, Tamale, Ghana given the feedback of the app on 2017-01-19 12:16 as *“Good to read”*

**Mr. Rajesh Reddy** resident of Veera Reddy, Palle Sirivella Mandal, Allagadda Taluka, Kurnool Dist. Andhra Pradesh (Mob. No.9573740524) sent the feedback on 2016-06-07 19:25as *“Very useful app”*

## Upscaling

The village level workers and extension agents of the agriculture system should be trained about the benefits of adopting this

app for rice cultivation. Keeping in view of the spread of mobile technology in the rural areas, the trained personnel should be encouraged to train the farmers for enhancing profitability by assessing the mobile app for latest information on modern package of practices of rice cultivation. Different agencies should be persuaded to use this mobile app for the welfare of farming community in their respective geographical areas. Different government programme like Mera Gaon Mera Gaurav, Bringing Green Revolution in Eastern India, Farmers First, Tribal Sub Plan etc. should popularize this app among the stakeholders for harnessing benefit from it.

## Policy implication

Besides getting online solution farmers will be able to interact with the scientists/ Subject Matter Specialist through ‘ricexpert’ app and get their problems solved on real-time basis through SMS. Hence, there is a need for dissemination of ricexpert through some of the government schemes.

## Citation

Nayak AK, Mohapatra SD, Lal B, Tripathi R, Shahid M, Gautam P, Patnaik SSC, Patil NB, Raghu S, Yadav MK, Guru PK, Mohanty S, Kumar A, Pandi GGP, Gowda BG, Panda BB, Dash SK, Sah RP, Raja R, Saha S, Lenka S, Jena M, Chatterjee D, Mondal B and Sinha SK 2016. “ricexpert” one-step revolution in agriculture. ICAR-National Rice Research Institute Cuttack India, May 2016.



### Published by:

Dr. Himanshu Pathak, Director  
ICAR-National Rice Research Institute  
Cuttack-753006, Odisha  
Phone No. - 0671-2367757;  
Email - director.nrri@icar.gov.in