













New Frontiers in Agricultural Extension

Volume II

Editors

A.K. Singh, Peter Craufurd, Sudhanshu Singh, Virender Kumar, Balwinder Singh, Andrew McDonald, Ajoy Kumar Singh, Anjani Kumar, Randhir Singh, Rajbir Singh, Prakashan C. Veettil, P. Panneerselvam and R.K. Malik



The Cereal Systems Initiative for South Asia (CSISA) is a regional initiative to sustainably increase the productivity of cereal-based cropping systems, thus improving food security and farmers' livelihoods in Bangladesh, India and Nepal. CSISA works with public and private partners to support the widespread adoption of resource conserving and climate resilient farming technologies and practices. The initiative is led by the International Maize and Wheat Improvement Center (CIMMYT), is jointly implemented with the International Food Policy Research Institute (IFPRI), the International Rice Research Institute (IRRI) and Indian Council of Agricultural Research (ICAR) and is funded by USAID and the Bill & Melinda Gates Foundation.

www.csisa.org

Email: cimmyt-csisa@cgiar.org

Citation: A.K. Singh, Peter Craufurd, Sudhanshu Singh, Virender Kumar, Balwinder Singh, Andrew McDonald, Ajoy Kumar Singh, Anjani Kumar, Randhir Singh, Rajbir Singh, Prakashan C. Veettil, P. Panneerselvam and R.K. Malik (Eds.) 2020. **New Frontiers in Agricultural Extension - Volume II**. International Maize and Wheat Improvement Center (CIMMYT). pp. 550.

©2020 This publication is a product of the Cereal Systems Initiative for South Asia (CSISA) and copyrighted by the International Maize and Wheat Improvement Center (CIMMYT) and International Rice Research Institute (IRRI). This work is licensed for use under a Creative Commons Attribution Non Commercial Share Alike 4.0 License (Unported).

CIMMYT and IRRI encourage fair use of this material with proper citation or acknowledgement. The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the International Maize and Wheat Improvement Center (CIMMYT) and International Rice Research Institute (IRRI) concerning the legal status of any country, person, territory, city, or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries. Where trade names are used, this does not constitute endorsement of or discrimination against any product by CIMMYT and IRRI.

This publication was made possible through the support provided by the United States Agency for International Development and the Bill & Melinda Gates Foundation. The contents and opinions expressed herein are those of the Editors and do not necessarily reflect the views of USAID or the Gates Foundation. The support from Indian Council of Agricultural Research is acknowledged.

Published in December 2020

New Frontiers in Agricultural Extension

- Volume II

Contents

For	eword	xii
Pre	face	X۷
Executive Summary		xvi
1.	Data Collection and Its Processing Methods	
1.1	Sampling methodology for landscape diagnostic survey for rice in India A. Samaddar, A. Ajay, Ajit, R.K. Paul and S. Pal	3
1.2	Application of open data kit in landscape diagnostic survey for rice in India A. Ajay, S. Sharma, A. Samaddar, A. Arora, S. Pal, S. Marwaha and S.N. Islam	11
1.3	Visualizing landscape diagnostic survey data of rice on Krishi Vigyan Kendra knowledge network S. Pal, A. Arora, S. Marwaha, Ajit, R.K. Paul, S.N. Islam, B. Singh, R. Malik and P. Craufurd	19
1.4	Management of Landscape Diagnostic Survey data in India Anurag Ajay and Peter Craufurd	34
1.5	Rice yield and its determinants in Eastern Uttar Pradesh of India Ranjit Kumar Paul, Ajit, Soumen Pal, Alka Arora, Sudeep Marwaha, Peter Craufurd, R.K. Malik, B. Singh and A. Samaddar	39
2.	Learnings and Priority Setting from Landscape Diagnostic Survey Database	
2.1	Understanding and mapping rice variety spread A.K. Singh, Prakashan Veettil, Sudhnashu Singh, Peter Craufurd, Virender Kumar, Balwinder Singh, P. Panneerselvam, N.C. Banik, Ashok Kumar, R.K. Sohane, Madhusudan Kundu, S.K. Singh, Madhulika Singh, Sachin Sharma, Anurag Kumar, Rajan Harshit, Andrew McDonald and R.K. Malik	53