

ISSN: 2392-4535 (Print), 2392-4543 (Online)

Journal of Nepal Agricultural Research Council

Volume 8, May 2022



Nepal Agricultural Research Council
Kathmandu, Nepal



© Nepal Agricultural Research Council 2022

Frequency of Publication: Annual

Official Language: English

ISSN: 2392-4535 (Print), 2392-4543 (Online)

NPSN: 098/2078/79

DOI Prefix: 10.3126/jnarc

Subject of Interest: Agro-biodiversity, agronomy, plant breeding, horticulture (vegetables, fruits, spices, beverages, flowers), entomology, plant pathology, soil science, animal science (pasture and forage, breeding, nutrition, health), fisheries and aquaculture (warm, cool, cold water fisheries and aquaculture), agro-forestry, agricultural engineering, agricultural environment, agricultural botany, agricultural economics, agricultural ecology, post-harvest technology, food science, weed science, seed science. Agriculture policy, market, socio-economics, outreach and agri-extension and agri-education

Submission Email: cpdd@narc.gov.np; narcjournal@gmail.com

Cover Photo: Traditional system of de-husking proso millet (left), Chino Kutak (right)

Published by: Nepal Agricultural Research Council
National Agricultural Technology Information Centre
Khumaltar, Lalitpur
PO Box: 3605, Kathmandu, Nepal
Phone: 977 1 5523 041
Fax: 977 1 5521 197
Email: cpdd@narc.gov.np
URL: <http://narc.gov.np/narc-journal/>

Correspondence: Editor-in-Chief, Journal of Nepal Agricultural Research Council

Nepal Agricultural Research Council was established in 1991 as an autonomous organization under "Nepal Agricultural Research Council Act 1991" (URL: <http://narc.gov.np/>)

The submission of the articles in the journal declares that all terms and conditions of the journal has been read and accepted by the authors. All articles are licensed under a Creative Commons Attribution-NonCommercial 4.0 International License (CC BY-NC 4.0); they represent the view of authors to whom they are credited and are not necessarily those of members of Editorial Board and publisher.

Call for Reviewers

The journal is always seeking conscientious reviewers and extends an invitation to agricultural researchers to join the Review Team of the Journal of NARC. We believe the best reviewers are persons who have published themselves. Ideally, we prefer persons who have published at least 6 manuscripts and hold a doctoral degree.

Reviewer needs to review papers electronically (eg track change mode in word file) and should have knowledge of online submission system and author's guidelines. To be a reviewer, please register NepJol website (<https://www.nepjol.info/index.php/JNARC/about/submissions#onlineSubmissions>). It is expected that manuscripts will be reviewed and returned within four weeks. A reviewer if repeatedly submit late reviews or fail to return reviews, he/she will be removed from the Review Team. If you are unable to review four weeks, kindly decline the review.

This journal is a peer reviewed open access journal, abstracted and indexed in more than 27 databases. Paper is published free of cost and journal is distributed widely both color e-copy and color print copy. Please visit <http://narc.gov.np/narc-journal/> for journal details and reviewer's guidelines. We recognize your contribution by different means. If you agree to the

aforementioned conditions, please submit an application with full name, subject/field, detail address including email and phone number at narcjournal@gmail.com.

Journal of Nepal Agricultural Research Council

Volume 8: iv+121, May 2022

Patron

Deepak Bhandari, PhD
Executive Director
Nepal Agricultural Research Council, Kathmandu, Nepal
Email: b.deepak359@gmail.com

The Editorial Board

Editor-In-Chief

Dr. Hari Krishna Shrestha
Senior Scientist
Nepal Agricultural Research Council
Nepal
Email: hkshrestha_1@yahoo.com

Managing Editor

Yubraj Bhusal
Senior Scientist
National Agricultural Technology Information
Centre, NARC, Khumaltar, Lalitpur, Nepal
Email: rbconus@gmail.com

Associate-Editor-In-Chief

Jiban Shrestha
Scientist
National Plant Breeding and Genetic Research
Centre, NARC, Khumaltar, Lalitpur, Nepal
Email: jibshrestha@gmail.com
ORCID: <https://orcid.org/0000-0002-3755-8812>

Editors

Neena Amatya Gorkhali, PhD
Senior Scientist
National Animal Breeding and Genetic Research
Centre, NARC, Khumaltar, Lalitpur, Nepal
Email: neenagorkhali@hotmail.com
ORCID: <https://orcid.org/0000-0003-3592-4652>

Editors

Dr. Binod Luitel
Senior Scientist
National Horticulture Research Centre
Khumaltar, Lalitpur, Nepal
Email: binodsan@yahoo.com

Dr Tek Prasad Gotame
Senior Scientist
Planning Division, Nepal Agricultural Research
Council
Singhadurbar Plaza, Kathmandu, Nepal
Email: gotame@gmail.com

Krishna P. Timsina, PhD
Senior Scientist
National Agriculture Policy Research Centre
Khumaltar, Lalitpur, Nepal
Email: krishnatimsina2000@gmail.com
ORCID: <https://orcid.org/0000-0003-4005-7039>

Assistant Editor

Jeevan Lamichhane
Scientist
National Agricultural Technology Information
Centre
Nepal Agricultural Research Council
Khumaltar, Lalitpur, Nepal
Email: jeevanlamichhane7@gmail.com

Editorial Assistant

Rishi Ram Adhikari
Computer Officer
National Agri. Technology Information Centre
NARC, Khumaltar, Lalitpur, Nepal
Email: adhikari_rishi@yahoo.com

Contents

Screening of Maize Genotypes against Maize Leaf Aphid [<i>Rhopalosiphum maidis</i> (Fitch)] under Field Condition at Chitwan, Nepal <i>Saraswati Neupane, Subash Subedi, Prazwal Neupane and Ramesh Kumar Shrestha</i>	1
Effect of Wrapping Materials and Maturity Stages on Postharvest Loss Reduction of Papaya <i>Sujan Subedi, Giri Dhari Subedi, Dipendra Ghimire, Ishwori Prasad Gautam, Suvechchha Khanal, Purushottam Khatiwoda³ and Sanjeeb Thapa</i>	7
Application of Nitrogenous Fertilizer in Rice Production: A Review <i>Jiban Shrestha, Tika Bahadur Karki and Mohammad Anwar Hossain</i>	16
Assessment of Proso millet Genotypes against Blast Baised by <i>Pyricularia grisea</i> (Cooke) Sacc. under Field Condition at Mid Hill Region of Nepal <i>Subash Subedi , Saraswati Neupane, Prazwal Neupane and Jiban Shrestha</i>	27
Multi-Environment Screening of Nepalese Finger Millet Landraces against Blast Disease [<i>Pyricularia grisea</i> (Cooke) Sacc.)] <i>Krishna Hari Ghimire, Hira Kaji Manandhar, Madhav Prasad Pandey, Bal Krishna Joshi, Surya Kanta Ghimire, Ajaya Karkee, Suk Bahadur Gurung, Netra Hari Ghimire and Devendra Gauchan</i>	35
Effect of Organic Manures and Chemical Fertilizers on Maize Productivity and Soil Properties in the Winter Season <i>Parbati Adhikari, Reena Sharma and Bhanu Bhakta Pokhrel</i>	52
Reproductive and Productive Performance of Crossbred and Terai Cattle in Bardiya district of Nepal <i>Gokarna Gautam and Ujjwal Khadka</i>	63
Production Economics and Resource Use Efficiency (RUE) in Lentil Production in Terai and Inner Terai Regions of Nepal <i>Damodar Gautam, Shiva Chandra Dhakal, Rishi Ram Kattel and Narayan Prasad Khanal</i>	71
Multi-year Prediction of Rice Yield under the Changing Climatic Scenarios in Nepalese Central Terai using DSSAT Crop Model <i>Lal Prasad Amgain, Sailesh Adhikari and Samiksha Pandit</i>	88
Production Performance and Nutrient Composition of Fodder Triticale (x <i>Triticosecale</i>) <i>Sujaya Upreti, Ram P. Ghimire, Namarata Singh, Gopal Bhandari and Niraj Banskota</i>	101
Instruction to Authors	115