

82

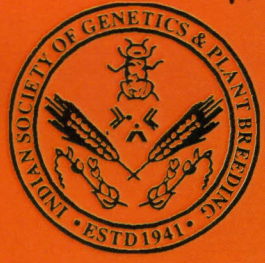
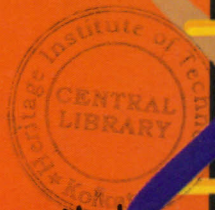
Since 1941

The Indian Journal of

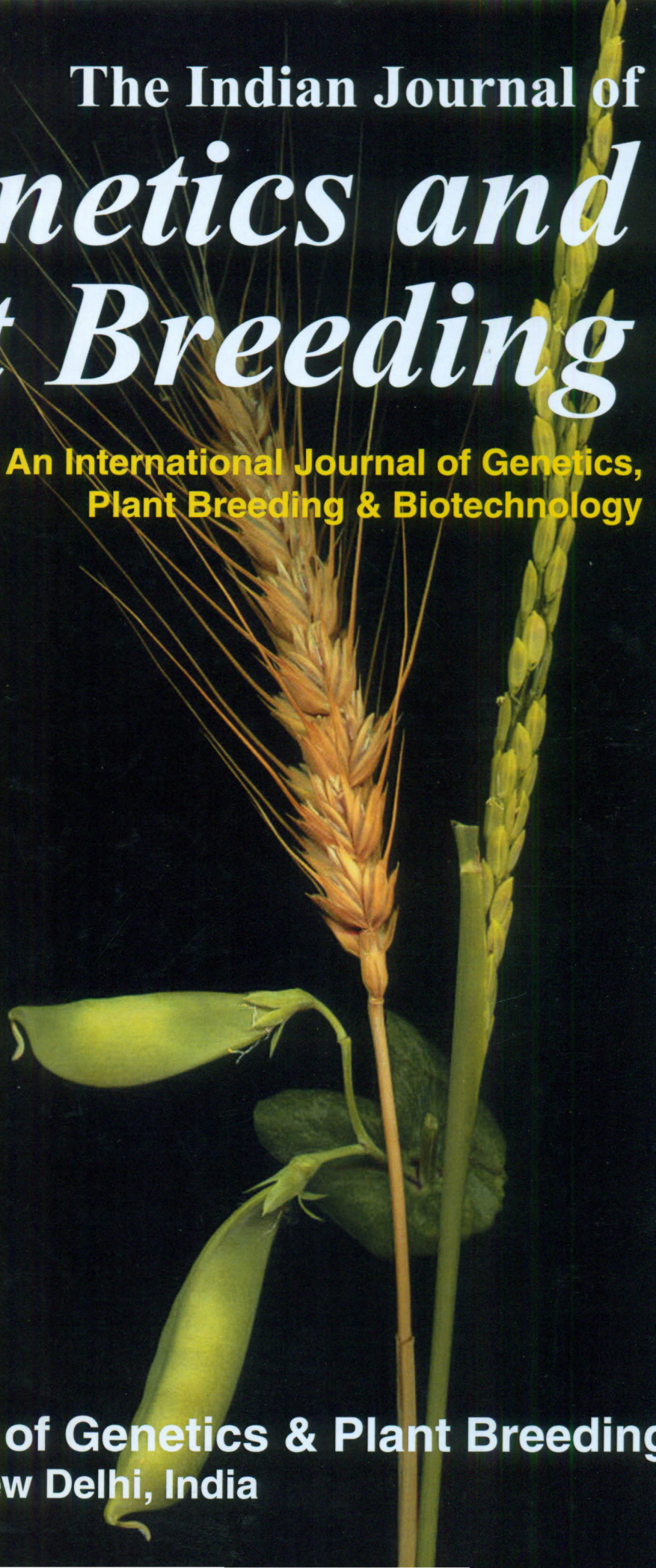
Genetics and Plant Breeding

An International Journal of Genetics,
Plant Breeding & Biotechnology

Volume 83
Number 4
November 2023



www.isgpb.org



The Indian Society of Genetics & Plant Breeding
New Delhi, India

RNI No. DELENG/2001/7316

ISSN Print : 0019-5200

ISSN Online : 0975-6906

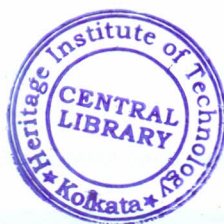
Impact Factor* : 1.339

*Journal Citation Report Thomson Reuters

Volume 83

Number 4

November 2023



The Indian Journal of

Genetics and Plant Breeding

An International Journal of Genetics, Plant Breeding and Biotechnology

ABSTRACTED IN: Plant Breeding Abstracts, Plant Genetic Resources Abstracts, Plant Growth Regulator Abstracts, CAB International, Review of Plant Pathology, Review of Agricultural Entomology, Seed Abstracts, Wheat, Barley and Triticale Abstracts, Maize Abstracts, Soybean Abstracts and Indian Science Abstracts.

Contents

Research Articles

- Unfolding genomic regions and identification of novel marker-trait associations for therapeutic traits flavonoid and anthocyanin content in rice (*Oryza sativa* L.)
L. Ananda Lekshmi, R. Muthuvijayaragavan, S. Geetha, M. Hemalatha, V. Allan, M. Dhasarathan, N. Devasena, G. Ariharasutharsan, N. Vishnu Varthini, D. G. Manu, P. Jeyaprakash, S. Aiywaraya and R. Saraswathi ... 457
- Development of a novel image-based grain counting setup for thousand-grain weight estimation in wheat
J. Navaneetha Krishnan, Uttam Kumar, Satinder Kaur and Parveen Chhuneja ... 469
- Assessment of variation among cultivated wheat species for plant nutrient strata under salinity conditions
Srivijay S. Malipatil, Suma S. Biradar, S. A. Desai, S. S. Gundlur, S. K. Singh, Lalitha Jaggal and Sadashiva Tippimath ... 476
- Development of near isogenic lines (NILs) for leaf rust resistance utilizing advanced generation segregating lines of RIL population in wheat (*Triticum aestivum* L.)
Ramesh Bhurta, Subhash Bijarania, Naman Raj, Anupama Singh, Ajay K. Chandra, Priyanka Agarwal, Hariom Shukla, Raghunandan K., Niharika Mallick, Vinod and Shailendra K. Jha ... 482
- Inheritance of factors and validation of loci linked to the kernel row number in tropical field corn (*Zea mays* L.)
Sahana Police Patil, R.N. Gadag, Ganapati Mukri, Chandu Singh, Jayant S. Bhat, Navin C. Gupta, Jyoti Kumari, Kumari Shilpa, Chandra Prabha and K.V. Gowtham ... 490
- Stability of maize hybrids under drought, rainfed and optimum field conditions revealed through GGE analysis
Ramesh Kumar, Yashmeet Kaur, Abhijit K. Das, Shyam B. Singh, Bhupender Kumar, Manish B. Patel, Jai P. Shahi and Pervez H. Zaidi ... 499



www.isgpg.org

Official publication of
The Indian Society of Genetics and Plant Breeding,
New Delhi

Indian J. Genet. Plant Breed., 83(4): 457-626 (November 2023)

Genetic analysis for morphological, quality and biofuel related traits in sweet sorghum [<i>Sorghum bicolor</i> (L.) Moench] <i>Farrag F.B. Abu-Ellail, Zeinab E. Ghareeb and Ahmed E. Attia</i>	... 508
Stability analysis of groundnut (<i>Arachis hypogaea</i> L.) genotypes using AMMI and GGE biplot models and ideal genotype selection indicator <i>Farooq Fadakar Navrood, Rasool Ashghari Zakaria, Marefat Mostafari Rad, Naser Zare and Mina Moghaddaszadeh Ahrabi</i>	... 518
Unclenching the potentials of global core germplasm for root nodulation traits for increased biological nitrogen fixation and productivity in chickpea (<i>Cicer arietinum</i> L.) <i>B.S. Chandana, Rohit K. Mahto, Rajesh K. Singh, K.K. Singh, Sunita Kushwah, Gera R. Lavanya, Shailesh Tripathi, V.S. Hegde and Rajendra Kumar</i>	... 526
Multivariate analysis among indigenous and exotic advanced inbred lines of sunflower (<i>Helianthus annuus</i> L.) for genetic improvement <i>H.P. Meena, M. Sujatha, Praduman Yadav, M.Y. Dudhe, M.S. Uma, K. Vikas, R. Sasikala, M.K. Ghodke, S. Neelima, S.B. Sakhare, K. Vineeta, S.S. Kandhola, A. Misal, S.D. Nehru, Neeraj Kumar, Subash Chander, E. Umarani, K. Jayshree, S.S. Lakshmanand and B.S. Yashavanth</i>	... 535
Genotype \times environment interaction and stability of high oleic sunflower (<i>Helianthus annuus</i> L.) hybrids across temperature regimes <i>M.S. Umar Farooq, M. S. Uma, S.D. Nehru, Vikas V. Kulkarni, B.N. Harish Babu and C. P. Manjula</i>	... 546
Genotype by environment (G \times E) interaction analysis for seed yield and other contributing traits in linseed (<i>Linum usitatissimum</i> L.) across conventional and zero budget natural farming production systems in north-western Himalayas <i>Garima Thakur, Satish Paul, Gopal Katna and Uttam Chandel</i>	... 555
DNA content, ploidy level determination and genetic variations of okra (<i>Abelmoschus esculentus</i> L.) genotypes <i>Naser M. Salameh</i>	... 567
Identification long non-coding RNAs, miRNAs and their targets in witches' broom disease tolerance in cocoa (<i>Theobroma cacao</i> L.) <i>Antara Das, Aparna Veluru, Alokesh Das and R. Tava Pandian</i>	... 573
Simultaneous evaluation of yield and stability of sugar beet (<i>Beta vulgaris</i> L.) varieties under Egyptian conditions using AMMI and GGE biplot approaches <i>Farrag F.B. Abu-Ellail, K.A. Sadek, Y.M. Abd El-Azez and W.M. Fares</i>	... 587
Short Research Articles	
A modified DNA isolation protocol for high-quality DNA and long-term storability in grasspea (<i>Lathyrus sativus</i> L.) <i>K. R. Ramya, R. Gupta, A. Pandey, K. Tripathi, K. C. Bhatt and R. Singh</i>	... 602
Genotype \times environment interaction in hybrids and parents of Sesame (<i>Sesamum indicum</i> L.) <i>Sanjay T. Rathod, Vishnu K. Gite, Jay Prakash, Sanjay J. Jambhulkar and Maharudra Ghodke</i>	... 605
AMMI and GGE analyses of linseed (<i>Linum usitatissimum</i> L.) genotypes for stability in the north-west Himalayan region of India <i>Ronika Thakur, Satish Paul, Garima Thakur, Uttam Chandel and Gurudev Singh</i>	... 609
<i>In-vitro</i> intervention modifies the outcome of induced mutagenesis using gamma-ray but not ethyl methanesulphonate in cockscomb (<i>Celosia cristata</i> L.) <i>Pallavi K. Rinkey and Rupesh S. Badere</i>	... 614
Notification and germplasm registration	... 618
Obituaries	... 622
List of Referees for Vol. 83(1-4), 2023	... 625