Volume 2 Issue 1 April 2004

PLANT GENETIC RESOURCES

CHARACTERIZATION AND UTILIZATION







CABI *Publishing*

ISSN 1479-2621

https://doi.org/10.1017/S1479262104000103 Published online by Cambridge University Press

Plant Genetic Resources: Characterization and Utilization

Aims and Scope

Published on behalf of the National Institute for Agricultural Botany, this international peer-reviewed journal provides a forum for describing the application of novel genomic technologies, as well as their integration with established techniques, towards the understanding of the genetic variation captured in both *in situ* and *ex situ* collections of crop and non-crop plants.

The journal also provides an airing for the wider issues relevant to plant germplasm conservation and utilization, including those dealing with policy and its wider implications, and studies involving interpretation and synthesis of data. Multi-disciplinary approaches that incorporate both a technical and a socio-economic focus are welcome, as are papers which take a wider cross-cutting view of the subject.

Technical aspects cover developments in technologies of potential or demonstrated relevance to the analysis of variation and diversity at the phenotypic and genotypic levels; the development of rational germplasm collection, evaluation and conservation strategies; and the impact of crop genetic modification and biotechnology on plant genetic resources. Non-technical aspects will include ethical, legal, commercial and social issues of relevance, in particular relating to farmers' rights, intellectual property and ethnobotany.

Plant Genetic Resources: Characterization and Utilization publishes four types of paper:

- Full research paper - A full account of a complete project with experimental details.
- Short communication - A preliminary account of early findings in ongoing work.
- Research notes - Short accounts of small projects that might not merit a full paper but that nonetheless would be of interest to the community.
- Reviews - Literature overviews of recent research in a large subtopic or comparative reviews of related work in different species. Book reviews are also welcomed.

Editor-in-Chief

Robert Koebner
Crop Genetics Department, John Innes Centre, UK

Editorial Board

Alex Beharav, *University of Haifa, Israel*
Harold Bockelman, *National Small Grains Collection, Idaho, USA*
Jizeng Jia, *Chinese Academy of Agricultural Sciences, Beijing, China*
Devra Jarvis, *International Plant Genetic Resources Institute (IPGRI), Rome, Italy*
Christian Fatokoun, *IITA, Ibadan, Nigeria*
Umesh C. Lavania, *Central Institute of Medicinal and Aromatic Plants, Lucknow, India*
Brian Ford-Lloyd, *University of Birmingham, UK*
Stephen Smith, *Pioneer Hi-Bred International Inc., Iowa, USA*
Roberto Tuberosa, *University of Bologna, Italy*

© NIAB 2004. All rights reserved
Published by CABI Publishing, Wallingford, UK; Cambridge, USA

https://doi.org/10.1017/S1479262104000103 Published online by Cambridge University Press

© NIAB 2004
ISSN 1479-2621

Plant Genetic Resources Characterization and Utilization

Contents

Editor's preface
Robert Koebner 1

Review article
Plant genetic resources in crop improvement
B. I. G. Haussmann, H. K. Parzies, T. Presterl, Z. Sušić and T. Miedaner 3

Allozymic markers and genetic characterization of a natural population of *Vriesea friburgensis* var. *paludosa*, a bromeliad from the Atlantic Forest
G. M. Alves, A. R. Filho, A. Puchalski, M. S. Reis, R. O. Nodari and M. P. Guerra 23

Agricultural sustainability and underutilized crop species in southern Italy
G. B. Polignano, G. Laghetti, B. Margiotta and P. Perrino 29

DNA polymorphism among blackgram (*Vigna mungo* L. Hepper) genotypes using inter-simple sequence repeat (ISSR) markers
Ruta Ranade and T. Gopalakrishna 37

Genetic diversity in the Brazilian species of *Adesmia* DC (Leguminosae) as assessed by RAPD
Paula Menna Barreto Dias, Miguel Dall'Agnol and Maria Teresa Schifino-Wittmann 43

Mass propagation and conservation of *Podophyllum emodi* Wall, an endangered medicinal plant of the Himalaya
Amit Chandra Kharkwal, Om Prakash, Amita Bhattacharya and Paramvir Singh Ahuja . . . 51

Characterization of the end-use quality of soft wheat cultivars from the eastern and western US germplasm 'pools'
Craig F. Morris, Kim Garland Campbell and Garrison E. King 59

Book review 71

https://doi.org/10.1017/S1479262104000103 Published online by Cambridge University Press

Plant Genetic Resources Characterization and Utilization

Volume 2 2004
ISSN: 1479-2621 (Print)
ISSN: 1479-263X (Internet)
www.cabi-publishing.org/pgr

Publishing, Production, Marketing and Subscription Sales Office:
CABI Publishing
Nosworthy Way
Wallingford
Oxon OX10 8DE
UK
Tel: +44 (0)1491 832111
Fax: +44 (0)1491 833508
E-mail: publishing@cabi.org
Telex: 847964 (COMAGG G)

For Customers in North America:
CABI Publishing
875 Massachusetts Avenue
7th Floor
Cambridge
MA 02139
USA
Tel: +1 617 395 4056
Fax: +1 617 354 6875
[Toll-free: 800 528 4841]
E-mail: cabi-nao@cabi.org

Publishing Director: David Nicholson
Managing Editor: Sarah Peck
Marketing Executive: Melanie Fox

Plant Genetic Resources: Characterization and Utilization is an international journal published tri-annually by CABI Publishing in April, August and December.

Special sales and supplements:
This journal accepts advertising and inserts. We also provide bulk reprints of suitable papers to meet teaching or promotional requirements. The journal also publishes proceedings on behalf of academic and corporate sponsors. Please contact Melanie Fox at the Wallingford address for further details.

Subscription information:
The subscription rates for Volume 2, 2004 (3 issues) are:
Institutional subscription
Internet/Print Package £145.00/$225.00 (Americas only)
Internet only £115.00/$200.00 (Americas only)
Print only £135.00/$235.00 (Americas only)
Any **supplements** to this journal published in the course of the annual volume are normally supplied to subscribers at no extra charge.

Back volumes are available. Please contact CABI Publishing for further information.

Claims for non-receipt of journal issues will be considered on their merit and only if the claim is received within six months of publication. Replacement copies supplied after this date will be chargeable.

Despatch: deliveries outside the UK are by ASP Printflow Airsaver unless other arrangements are made. Customers requiring airmail delivery should indicate clearly their requirements and add an additional 10% to the relevant subscription price.

US POSTMASTERS: please send address corrections to CABI Publishing at the Wallingford address.

Information for Authors:
Two copies of the manuscript and artwork should be sent to:
Mary McPhee
PGRC&U, Editorial Office
NIAB
Huntingdon Road
Cambridge CB3 OLE, UK
Tel: +44 (0)1223 276381; Fax: +44 (0)1223 277602
E-mail: mary.mcphee@niab.com

Notes for Authors are available on the internet at http://www.cabi-publishing.org/pgr

Offprints: The corresponding author of an accepted paper will receive a pdf offprint. Additional offprints are available for a fee and should be ordered at proof stage. **No page charges or submission charges are levied by this journal.**

Copyright:© NIAB 2004. All rights reserved: permission for reproduction of any part of the journal (text, figures, tables or other matter) in any form (on paper, microfiche or electronically) should be sought directly from CABI Publishing or a licence permitting restricted copying obtained from the Copyright Licensing Agency, Tottenham Court Road, London WIP 9HE, UK, or in the USA from the Central Clearance Center, 27 Congress Street, Salem MA 01970.

Disclaimer: The information contained herein, including any expression of opinion and any projection or forecast, has been obtained from or is based upon sources believed by us to be reliable, but is not guaranteed as to accuracy or completeness. The information is supplied without obligation and on the understanding that any person who acts upon it or otherwise changes his/her position in reliance thereon does so entirely at his/her own risk.

CAB International does not accept responsibility for any trade advertisement included in this publication.

This journal is printed on acid-free paper from renewable sources. Printed in the UK.

https://doi.org/10.1017/S1479262104000103 Published online by Cambridge University Press