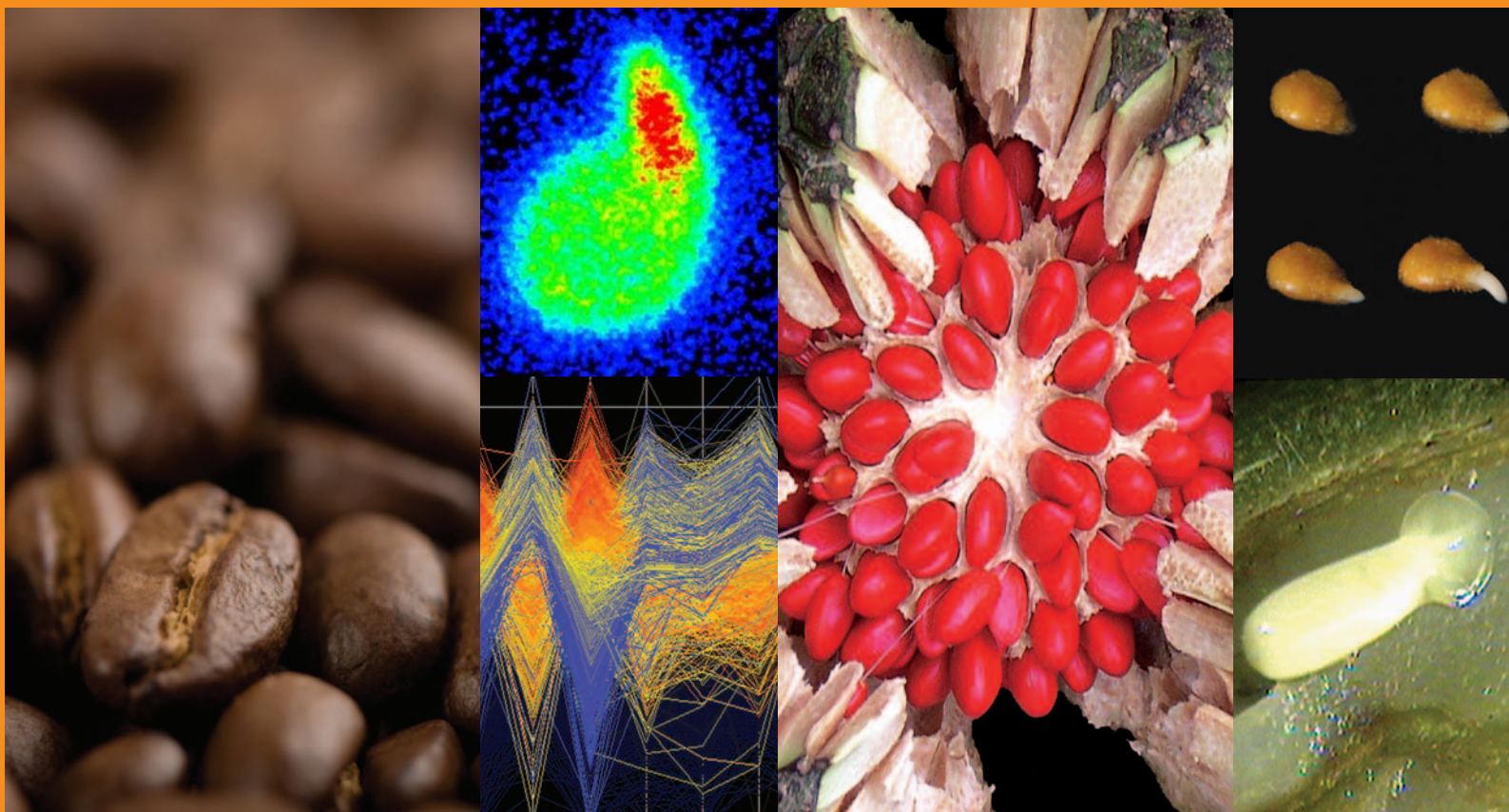


SEED SCIENCE RESEARCH

journals.cambridge.org/ssr



*international society
for seed science*

**CAMBRIDGE
UNIVERSITY PRESS**

Seed Science Research is the official Journal of the International Society for Seed Science

The contents of this journal are available to subscribers online at
journals.cambridge.org/SSR

Aims and Scope

Seed Science Research is an international journal that publishes original papers, as well as reviews and opinion papers, dealing primarily with the fundamentals of seed research with emphasis on the physiology, biochemistry, molecular biology and ecology of seed development, dormancy and germination. The importance of seeds to propagation, food, biofuel and biodiversity is of increasing interest and therefore submissions on seed genetics, seed biotechnology, seed treatment and seedling establishment are especially encouraged if they are novel and 'seed driven'.

Editor

Henk W.M. Hilhorst

Lab of Plant Physiology, Wageningen University, Arboretumlaan 4, 6703 BD Wageningen, The Netherlands

Review Editor

J. Derek Bewley

Department of Molecular & Cellular Biology, University of Guelph, Guelph, Ontario N1G 2W1, Canada

Associate Editors

Professor Roberto Benez-Arnold, *University of Buenos Aires, Argentina*

Julia Buitink, *INRA, France*

C.A. Thanos, *University of Athens, Greece*

Ken Thompson, *University of Sheffield, UK*

Dr Peter Toorop, *Royal Botanic Gardens Kew, UK*

Editorial Board

P. Allen, *Brigham Young University, Provo, USA*

C.C. Baskin, *University of Kentucky, Lexington, USA*

P. Berjak, *University of KwaZulu-Natal, South Africa*

M. Black, *King's College London, UK*

K.J. Bradford, *University of California, Davis, USA*

M.A. Cohn, *Louisiana State University, USA*

F. Corbineau, *Université Pierre et Marie Curie,
Paris, France*

J.M. Farrant, *University of Cape Town, South Africa*

D. Job, *CNRS, Bayer CropScience, Lyon, France*

O. Leprince, *Institut National d'Horticulture,
Angers, France*

G. Leubner-Metzger, *Albert-Ludwigs-University,
Freiburg, Germany*

E. Nambara, *University of Toronto, Canada*

H. Nonogaki, *Oregon State University, Corvallis,
USA*

B. Peco, *Universidad Autonoma de Madrid, Spain*

S. Penfield, *University of York, UK*

H. Pritchard, *Royal Botanic Gardens, West Sussex, UK*

K. Steadman, *University of Queensland, Brisbane,
Australia*

C.W. Walters, *National Seed Science Laboratory,
Fort Collins, USA*

© Cambridge University Press 2013

Published by Cambridge University Press

Cambridge CB2 8RU: New York, NY 10013-2473

This journal issue has been printed on FSC-certified paper and cover board. FSC is an independent, non-governmental, not-for-profit organization established to promote the responsible management of the world's forests. Please see www.fsc.org for information.

Seed Science Research

Research Opinion

- Baskin, J.M., Lu, J.J., Baskin, C.C. & Tan, D.Y. The necessity for testing germination of fresh seeds in studies on diaspore heteromorphism as a life-history strategy 83

Research paper

- Harris, L.J., Martinez, S.A., Keyser, B.R., Dyer, W.E. & Johnson, R.R. Functional analysis of TaABF1 during abscisic acid and gibberellin signalling in aleurone cells of cereal grains 89
- Yacoubi, R., Job, C., Belghazi, M., Chaibi, W. & Job, D. Proteomic analysis of the enhancement of seed vigour in osmoprimed alfalfa seeds germinated under salinity stress 99
- Obendorf, R.L., Sensenig, E.M., Byrt, E.M., Owczarczyk, A.B., Ohashi, M. & Schnebly, S.R. Cyclitol galactosides in low-raffinose, low-stachyose soybean embryos after feeding D-chiro-inositol, myo-inositol or D-pinitol..... 111
- Amooghaie, R. & Nikzad, K. The role of nitric oxide in priming-induced low-temperature tolerance in two genotypes of tomato 123
- Hu, X., Li, T., Wang, J., Wang, Y., Baskin, C.C. & Baskin, J.M. Seed dormancy in four Tibetan Plateau *Vicia* species and characterization of physiological changes in response of seeds to environmental factors..... 133
- Herranz, J.M., Copete, E. & Ferrandis, P. Non-deep complex morphophysiological dormancy in *Narcissus longispathus* (Amaryllidaceae): implications for evolution of dormancy levels within section *Pseudonarcissi* 141

Short Communication

- Wille, W., Thiele, J., Walker, E.A. & Kollmann, J. Limited evidence for allelopathic effects of giant hogweed on germination of native herbs 157

Seed Science Research is covered in the *Science Citation Index*[®],
Current Contents[®]/*Agriculture, Biology & Environmental Sciences*, *SciSearch*[®],
Research Alert[®], *BIOSIS*[®] Database,
CAB ABSTRACTS, and Elsevier BIOBASE/*Current Awareness in Biological Sciences*

Subscribing organizations are encouraged to copy and distribute this table of contents
for non-commercial purposes.

Seed Science Research

journals.cambridge.org/ssr

ISSN: 0960-2585

Publishing, Production, Marketing, and Subscription Sales Office:

Cambridge University Press
The Edinburgh Building
Shaftesbury Road
Cambridge CB2 8RU
UK
journals@cambridge.org

For Customers in North America:

Cambridge University Press
Journals Fulfillment Dept
100 Brook Hill Drive
West Nyack
New York 10994-2133
USA
journals_subscriptions@cup.org

Seed Science Research is an international journal published quarterly by Cambridge University Press in March, June, September and December.

Special sales and supplements:

This journal accepts relevant advertising and inserts. We also provide bulk reprints of suitable papers to meet teaching or promotional requirements. The journal also publishes abstracts and proceedings on behalf of academic and corporate sponsors. Please contact special_sales@cambridge.org

Subscription information:

The subscription rates for Volume 23, 2013 (4 issues) are:

Organisational, Online & Print: £586/\$1118

Organisational, Online only: £441/\$840

Individual, Online & Print: £343/\$653

Individual, Online only: £126/\$244

Individual, Print only: £329/\$624

ISSS members can benefit from discounted subscriptions.

The Journal can be accessed online at <http://journals.cambridge.org/ssr>

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 Cambridge University Press.

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.

US POSTMASTERS: please send address corrections to CUP Cambridge.

Notes for Authors: may be found at <http://journals.cambridge.org/ssr>. Please note there are no page charges or handling fees to publish in SSR.

Offprints: The author (or main author) of an accepted paper will receive a free PDF file via email.

Copyright: CUP, 2013. 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 the Publisher, or a licence permitting restricted copying obtained from the Copyright Licensing Agency, Tottenham Court Road, London W1P 9HE, UK, or in the USA by 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.

Cambridge University Press does not accept responsibility for any trade advertisement included in this publication.