

VOLUME 47 NUMBER 1 JANUARY 2011

Experimental Agriculture



An established international journal of research
on crop science and systems of agricultural
production, especially in the warmer regions

Submit your paper online at
<http://www.editorialmanager.com/eag>

CAMBRIDGE
UNIVERSITY PRESS

Experimental Agriculture

Editor

Dr D. Harris, ICRISAT, Kenya
N. L. Innes (Book Review Editor)
14 Hazel Drive, Dundee, DD2 1QQ, UK
Email: minnes1960@aol.com

Editorial Board

S. N. Azam-Ali, University of Nottingham, UK
M. K. V. Carr, Ilmington, UK
P. J. M. Cooper, Motcombe, Dorset, UK
R. H. V. Corley, Bedford, UK
E. T. Craswell, Australian National University, Australia
P. Q. Craufurd, University of Reading, UK
W. Erskine, CLIMA, University of Western Australia
E. Fereres, University of Córdoba, Spain
D. Gibbon, Shropshire, UK
P. J. Gregory, Scottish Crop Research Institute, UK
D. Harris, ICRISAT, Kenya
N. Hatibu, Kilimo Trust, Kampala, Uganda
A. Kassam, University of Reading, UK
C. King, University of Queensland, Australia
R. Lockwood, Kent, UK
A. Martin, Natural Resources Institute, University of Greenwich UK
D. Midmore, Central Queensland University, Australia
U. Mokwunye, Accra, Ghana
L. Noronha, The Energy and Resources Institute, New Delhi, India
C. O. Qualset, University of California, USA
F. M. Quin, Uki, New South Wales, Australia
N. Sanginga, TSB-CIAT, Nairobi, Kenya
S. Shanmugasundaram, Somerset, New Jersey, USA
G. Singh, Central Soil Salinity Research Institute, Karnal, India
G. R. Squire, Scottish Crop Research Institute, UK
S. Tarawali, ILRI, Addis Ababa, Ethiopia
J. T. Walker, Alzeim Ltd, Talgarth, UK

Subscriptions

Experimental Agriculture (ISSN 0014-4797) is published quarterly in January, April, July and October by Cambridge University Press, The Edinburgh Building, Shaftesbury Road, Cambridge CB2 8RU, UK/Cambridge University Press, 32 Avenue of the Americas, New York, N.Y. 10013-2473.

Orders, which must be accompanied by payment, may be sent to any bookseller, subscription agent or direct to the publisher: Cambridge University Press, The Edinburgh Building, Shaftesbury Road, Cambridge CB2 8RU, UK; or in the USA, Canada and Mexico: Cambridge University Press, Journals Fulfillment Department, 100 Brook Hill Drive, West Nyack, New York 10994-2133.

The subscription price (excluding VAT) of Volume 47 2011 is £389 net (including postage by air where appropriate, plus electronic access to institutional

subscribers) (US\$746 in the USA, Canada and Mexico), payable in advance. Single parts are £103 (US\$188 in the USA, Canada and Mexico) plus postage. An electronic only price is available to institutional subscribers at £300 (US\$590 in USA, Canada and Mexico). A print only price is available to institutional subscribers at £375 (US\$733 in USA, Canada and Mexico).

EU subscribers (outside the UK) who are not registered for VAT should add VAT at their country's rate. VAT registered subscribers should provide their VAT registration number. Japanese prices for institutions are available from Kinokuniya Company Ltd, PO Box 55, Chitose, Tokyo 156, Japan.

Periodicals postage paid at New York, NY and at additional mailing offices. POSTMASTER: send address changes in the USA, Canada and Mexico to: *Experimental Agriculture*, Cambridge University Press, 100 Brook Hill Drive, West Nyack, New York 10994-2133.

Copying

This journal is registered with the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, USA. Organizations in the USA who are also registered with CCC may therefore copy material (beyond the limits permitted by sections 107 and 108 of US Copyright law) subject to payment to CCC of the per copy fee of US\$16.00. This consent does not extend to multiple copying for promotional or commercial purposes. Code 0014-4797/11 US\$16.00.

ISI Tear Sheet Service, 3501 Market Street, Philadelphia, PA 19104, USA, is authorized to supply single copies of separate articles for private use only.

Organizations authorized by the Copyright Licensing Agency may also copy material subject to the usual conditions.

For all other use, permission should be sought from Cambridge or the American branch of Cambridge University Press.

Electronic Access and Information

Experimental Agriculture is one of the many titles included in the *Cambridge Journals Online* service which can be found at journals.cambridge.org

For further information on other Press titles access uk.cambridge.org or us.cambridge.org

Back Volumes

Previously published parts of *Experimental Agriculture* are available from Cambridge or the American branch of Cambridge University Press. Please contact for availability.