

COPYING

No contents may be reproduced by any means without the permission of Cambridge University Press. This journal is registered with the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, USA (www.copyright.com). Organizations in the USA who are also registered with the CCC may therefore copy material (beyond the limits permitted by sections 107 and 108 of US copyright law) subject to payment to CCC. This consent does not extend to multiple copying for promotional or commercial purposes. *ISI Tear Sheet Service*, 3501 Market Street, Philadelphia, PA 19106, 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.

INTERNET ACCESS

This journal is included in the Cambridge Journals Online service which can be found at <http://www.journals.cambridge.org> For further information on other Press titles access <http://www.cambridge.org>

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.

CAMBRIDGE UNIVERSITY PRESS

The Edinburgh Building, Shaftesbury Road, Cambridge CB2 8RU, United Kingdom
32 Avenue of the Americas, New York, NY 10013-2473, USA
477 Williamstown Road, Port Melbourne, VIC 3207, Australia
Ruiz de Alarcón 13, 28014 Madrid, Spain
Dock House, The Waterfront, Cape Town 8001, South Africa

Printed in the United Kingdom by the University Press, Cambridge

THE JOURNAL OF AGRICULTURAL SCIENCE

CONTENTS

CLIMATE CHANGE AND AGRICULTURE PAPERS

- S. CECCARELLI, S. GRANDO, M. MAATOUGUI, M. MICHAEL, M. SLASH, R. HAGHPARAST, M. RAHMANIAM, A. TAHERI, A. AL-YASSIN, A. BENBELKACEM, M. LABDI, H. MIMOUN and M. NACHIT Plant breeding and climate changes 627
- M. TRNKA, J. EITZINGER, M. DUBROVSKÝ, D. SEMERÁDOVÁ, P. ŠTĚPÁNEK, P. HLAVINKA, J. BALEK, P. SKALÁK, A. FARDA, H. FORMAYER and Z. ŽALUD Is rainfed crop production in central Europe at risk? Using a regional climate model to produce high resolution agroclimatic information for decision makers 639
- A. DALLA MARTA, D. GRIFONI, M. MANCINI, P. STORCHI, G. ZIPOLI and S. ORLANDINI Analysis of the relationships between climate variability and grapevine phenology in the Nobile di Montepulciano wine production area 657
- D. J. WARNER, M. DAVIES, N. HIPPS, N. OSBORNE, J. TZILIVAKIS and K. A. LEWIS Greenhouse gas emissions and energy use in UK-grown short-day strawberry (*Fragaria xananassa* Duch) crops 667
- A. P. BARNES, A. WREFORD, M. H. BUTTERWORTH, M. A. SEMENOV, D. MORAN, N. EVANS and B. D. L. FITT Adaptation to increasing severity of phoma stem canker on winter oilseed rape in the UK under climate change 683

CROPS AND SOILS PAPERS

- A. L. TSIVELIKAS and M. S. KOUTSIKA-SOTIRIOU Inbreeding effects on a winter squash landrace 695

ANIMAL PAPERS

- X. J. CHEN, F. J. HOU, C. MATTHEW and X. Z. HE Stocking rate effects on metabolizable energy intake and grazing behaviour of Tan sheep in steppe grassland on the Loess Plateau of Northwest China 709
- H. KHALILVANDI-BEHROOZYAR, M. DEHGHAN-BANADAKY and K. REZAYAZDI Palatability, *in situ* and *in vitro* nutritive value of dried sainfoin (*Onobrychis viciifolia*) 723

- BOOK REVIEWS 735

- FORTHCOMING EVENTS 739

- ACKNOWLEDGEMENTS TO REFEREES 741

- INDEX OF AUTHORS 743

- INDEX OF SUBJECTS 747

Journal of Agricultural Science now accepts submissions via Manuscript Central.
Go to <http://mc.manuscriptcentral.com/jagricsci>