

## Contents

(Abstracts/contents list published in *Biological Abstracts, Biological & Agricultural Index, Current Advances in Biological Sciences, Current Contents AB & ES, Ecological Abstracts, EMBiology, Environmental Abstracts, Field Crop Abstracts, Geo Abstracts, Geobase, Geographical Abstracts–Economic Geography, TROPAG and RURAL database, Science Citation Index*). Also covered in the abstract and citation database SCOPUS®. Full text available on ScienceDirect®.

### Research articles

- |  |    |   |     |
|--|----|---|-----|
| <p>The role of pollinators, pests and different yield components for organic and conventional white clover seed yields<br/>O. Lundin, G.P. Svensson, M.C. Larsson, G. Birgersson, V. Hederström, Å. Lankinen, O. Anderbrant (Sweden) and M. Rundlöf (Sweden, USA)</p>                                    | 1  | <p>Effects of weed control strategy on weed dynamics, soybean productivity and profitability under conservation agriculture in India<br/>S. Sepat (India), C. Thierfelder (Zimbabwe), A.R. Sharma (India), K. Pavuluri (UK), D. Kumar, M.A. Iqbal and A. Verma (India)</p>                                      | 61  |
| <p>Wheat residue mulch and anti-transpirants improve productivity and quality of rainfed soybean in semi-arid north-Indian plains<br/>A. Dass and R. Bhattacharyya (India)</p>   | 9  | <p>Dynamic monitoring of NDVI in wheat agronomy and breeding trials using an unmanned aerial vehicle<br/>T. Duan (Australia, China), S.C. Chapman (Australia), Y. Guo (China) and B. Zheng (Australia)</p>  | 71  |
| <p>Yield and nitrogen losses in oil palm plantations: Main drivers and management trade-offs determined using simulation<br/>L. Pardon (France, Australia), N.I. Huth, P.N. Nelson (Australia), M. Banabas (Papua New Guinea), B. Gabrielle and C. Bessou (France)</p>                                   | 20 | <p>Performance of <i>Miscanthus x giganteus</i> (Greef et Deu) established with plastic mulch and grown from a range of rhizomes sizes and densities in a cool temperate climate<br/>R.J. Olave, E.G.A. Forbes (United Kingdom), F. Munoz (Chile), A.S. Laidlaw, D.L. Easson and S. Watson (United Kingdom)</p> | 81  |
| <p>Retrieving LAI, chlorophyll and nitrogen contents in sugar beet crops from multi-angular optical remote sensing: Comparison of vegetation indices and PROSAIL inversion for field phenotyping<br/>S. Jay, F. Maupas, R. Bendoula and N. Gorretta (France)</p>   | 33 | <p>Drought resistance of new synthetic hexaploid wheat accessions evaluated by multiple traits and antioxidant enzyme activity<br/>Q. Song, C. Liu, D.G. Bachir, L. Chen and Y.-G. Hu (China)</p>   | 91  |
| <p>Agronomic biofortification of zinc in rice: Influence of cultivars and zinc application methods on grain yield and zinc bioavailability<br/>S. Saha, M. Chakraborty, D. Padhan, B. Saha, S. Murmu, K. Batabyal (India), A. Seth (Israel), G.C. Hazra, B. Mandal (India) and R.W. Bell (Australia)</p> | 52 | <p>Vegetative plasticity and floral branching compensate low plant density in modern spring rapeseed<br/>D.P. Rondanini, Y.C. Menendez, N.V. Gomez, D.J. Miralles and J.F. Botto (Argentina)</p>  | 104 |
|  |    | <p>Ambitious environmental and economic goals for the future of agriculture are unequally achieved by innovative cropping systems<br/>C. Colnenne-David, G. Grandeau, M.-H. Jeuffroy (France) and T. Dore (Thiverval-Grignon)</p>   | 114 |

(Contents continued on IBC)

(Contents continued from OBC)

Agronomic performance of inbred and hybrid rice cultivars under simplified and reduced-input practices S. Yuan, L. Nie, F. Wang, J. Huang and S. Peng (China)	129	Root biomass, root/shoot ratio, and soil water content under perennial grasses with different nitrogen rates U.M. Sainju, B.L. Allen, A.W. Lenssen and R.P. Ghimire (USA)	183
Regional, seasonal, cultivar and crop-year effects on sugarcane responses to residue mulching S. Ramburan and N. Nxumalo (South Africa)	136	Co-ordination between primordium formation and leaf appearance in soybean ( <i>Glycine max</i> ) as influenced by temperature F.M. Tenorio, J.E. Specht, T.J. Arkebauer, K.M. Eskridge, G.L. Graef and P. Grassini (USA)	197
Integrating WOFOST and Noah LSM for modeling maize production and soil moisture with sensitivity analysis, in the east of The Netherlands O.A. Eweys (Egypt, The Netherlands), A.A. Elwan and T.I. Borham (Egypt)	147	<b>Short communications</b>	
Occurrence of poorly responsive soils in western Kenya and associated nutrient imbalances in maize ( <i>Zea mays</i> L.) R. Njoroge (Belgium, Kenya), A.N. Otinga, J.R. Okalebo, M. Pepela (Kenya) and R. Merckx (Belgium)	162	Value of groundwater used for producing extra grain in North China Plain Z. Zhao (China, Australia), X. Qin, H. Zang (China), C. Chen (Australia), Y. Zhang and Z. Wang (China)	47
The relationship between grain and ovary size in wheat: An analysis of contrasting grain weight cultivars under different growing conditions P. Benincasa, L. Reale, E. Tedeschini, V. Ferri, M. Cerri, S. Ghitarrini, B. Falcinelli, G. Frenguelli, F. Ferranti, B.E. Ayano, O. Porfiri and A. Rosati (Italy)	175	Genetic improvement of grain quality traits for CIMMYT semi-dwarf spring bread wheat varieties developed during 1965–2015: 50 years of breeding C. Guzmán, E. Autrique, S. Mondal, J. Huerta-Espino, R.P. Singh, M. Vargas, J. Crossa, A. Amaya and R.J. Peña (Mexico)	192