

RESEARCH FRONT

Guest Editors: Ismail Cakmak and Bal Ram Singh

Sequential zinc and iron biofortification of bread-wheat grains: from controlled to uncontrolled environments
Fernando C. Lidon, Ana S. Almeida, Ana R. Costa, Ana S. Bagulho, Paula Scotti-Campos, José N. Smedo, Benvindo Maçãs, José Coutinho, Nuno Pinheiro, Conceição Gomes, António E. Leitão, Isabel P. Pais, Maria M. Silva, Fernando H. Reboredo, Maria F. Pessoa, José C. Ramalho 1097

How do glycine and histidine in nutrient solution affect zinc uptake and root-to-shoot translocation by wheat and triticale?
K. Khodamoradi, A. H. Khoshgoftarmanesh, N. Dalir, M. Afyuni, R. Schulin 1105

Selenium characterisation of the Portuguese bread-wheat archival collection
Catarina Galinha, Adriano M. G. Pacheco, Maria do Carmo Freitas, Ana Rita P. Costa, Nuno M. B. Pinheiro, Benvindo Maçãs, Ana Sofia Almeida, Hubert T. Wolterbeek 1111

Effect of the maize–soybean intercropping system on the potential bioavailability of magnesium, iron and zinc
Vesna Dragicevic, Snezana Oljaca, Milovan Stojiljkovic, Milena Simic, Zeljko Dolijanovic, Natalija Kravic 1118

Selenium fortification of hydroponically grown corn salad (*Valerianella locusta*)
Nicola Tomasi, Roberto Pinton, Stefano Gottardi, Tanja Mimmo, Matteo Scampicchio, Stefano Cesco 1128

RESEARCH PAPERS

Adaptation of wheat, barley, canola, field pea and chickpea to the thermal environments of Australia
Victor Sadras, M. Fernanda Dreccer 1137

Dynamics of phosphorus fractions in the rhizosphere of fababean (*Vicia faba* L.) and maize (*Zea mays* L.) grown in calcareous and acid soils
Guohua Li, Haigang Li, Peter A. Leffelaar, Jianbo Shen, Fusuo Zhang 1151

In search of photosensitising compounds in the annual forage legume *Biserrula pelecinus* L.
E. Swinny, C. K. Revell, N. Campbell, E. Spadek, C. Russo 1161

Agronomic benefits and risks associated with the irrigated peanut–maize production system under a changing climate in northern Australia
Yashvir S. Chauhan, Peter Thorburn, Jody S. Biggs, Graeme C. Wright 1167

Sugarcane seed composition and changes during artificial ageing
G. F. Siqueira, J. S. Pierre, A. El Tahchy, D. Glassop, S. Singh, G. D. Bonnett, A. L. Rae 1180

Effect of phenotypic recurrent selection on genetic diversity of non-dormant multifoliolate lucerne (*Medicago sativa* L.) populations
A. Odorizzi, E. M. C. Mamani, P. Sipowicz, B. Julier, J. Gieco, D. Basigalup 1190

Boron deficiency in pasture based on subterranean clover (*Trifolium subterraneum* L.) is linked to symbiotic malfunction
Leo J. Hamilton, Kevin F. M. Reed, Elaine M. A. Leach, John Brockwell 1197