

CONTENTS

Volume 40 Number 9 2017

ARTICLES

- Sulfur affects root growth and improves nitrogen recovery and internal efficiency in wheat
Walter D. Carciochi, Guillermo A. Divito, Lucrecia A. Fernández, and Hernán E. Echeverría 1231
- Relationship between mean square errors and wheat grain yields in long-term experiments
W. Raun, M. Golden, J. Dhillon, D. Aliddeki, E. Driver, S. Ervin, M. Diaite-Koumba, B. Jones, J. Lasquites, B. Figueiredo, M. Ramos Del Corso, N. Remondet, S. Zoca, P. Watkins, and J. Mullock 1243
- Amelioration of drought stress in wheat by combined application of PGPR, compost, and mineral fertilizer
Shadana Kanwal, Noshin Ilyas, Nazima Batool, and Muhammad Arshad 1250
- Harvest timing and N application rate effects on switchgrass yield, nutrient cycling, and partitioning
Ramdeo Seepaul, Bisoondat Macoon, K. Raja Reddy, and William B. Evans 1261
- Real-time nitrogen management in aerobic rice by adopting leaf color chart (LCC) as influenced by silicon
N. D. Yogendra, B. H. Kumara, N. Chandrashekar, N. B. Prakash, M. S. Anantha, and H. E. Shashidhar 1277
- Investigation of the changes in low molecular weight organic acids and other physiological parameters by nitric oxide application in two wheat cultivars exposed to boron stress
Hafize Dilek Tepe and Tülin Aydemir 1287
- On-farm trials of site-specific N management for maximum winter oilseed rape (*Brassica napus* L.) yield
Bo Liu, Tao Ren, Jianwei Lu, Xiaokun Li, Rihuan Cong, and Lishu Wu 1300
- Effect of organic amendments on rice yield trend, phosphorus use efficiency, uptake, and apparent balance in soil under long-term rice-wheat rotation
Tarik Mitran and P. K. Mani 1312
- Estimating nutritive values of *Jasminum fruticans* L. plant species in northern rangelands of Golestan province
Seyed Ali Hosseini, Seydeh Zohreh Mirdeilami, Fatemeh Ghilishli, and Mohammad Pessarakli 1323
- Response of baru (*Dipteryx alata* Vog.) seedlings to liming and NPK application
Alan Mario Zuffo, Joacir Mario Zuffo Júnior, Rezânio Martins Carvalho, Adaniel Sousa dos Santos, João Batista da Silva Oliveira, and Wéverson Lima Fonseca 1332
- Simultaneous use of plant growth promoting rhizobacterium and nitrogenous fertilizers may help in promoting growth, yield, and nutritional quality of okra
Qudsia Nazir, Muhammad Javed Akhtar, Muhammad Imran, Muhammad Arshad, Azhar Hussain, Sajid Mahmood, and Sabir Hussain 1339
- Seasonality of nutrients vis-à-vis fruit quality of pomegranate cv. Bhagwa on vertisol
Ashis Maity, Karupnan Dinesh Babu, Ananta Sarkar, and Ram Krishna Pal 1351

Volume 40 Number 10 2017

ARTICLES

- High sodium/calcium ratios in alkaline Wimmera soils: The role of magnesium and a hypothesis for their development
W. K. Gardner 1365

Response of wheat genotypes to foliar spray of ZnO and Fe ₂ O ₃ nanoparticles under salt stress <i>Alireza Fathi, Morteza Zahedi, Shahram Torabian, and Amirhossein Khoshgoftar</i>	1376
Influence of arbuscular mycorrhizal fungi on storage metabolites, mineral nutrition, and nitrogen-assimilating enzymes in potato (<i>Solanum tuberosum</i> L.) plant <i>Razia Shuab, Rafiq Lone, and K. K. Koul</i>	1386
Improving productivity and nutrients uptake of wheat plants using <i>Moringa oleifera</i> leaf extract in sandy soil <i>Abdel-Rahman M. A. Merwad and Mohamed K. Abdel-Fattah</i>	1397
The role of internal and external nitrogen pools in bermudagrass growth during spring emergence from dormancy <i>Shannon M. Sermons, Benjamin G. Wherley, Chenxi Zhang, Daniel C. Bowman, and Thomas W. Rufty</i>	1404
Liming an acid soil treated with diverse silicon sources: Effects on silicon uptake by sugarcane (<i>Saccharum</i> spp. hybrids) <i>Malcolm G. Keeping, Neil Miles, and R. Stuart Rutherford</i>	1417
Morpho-pomological and chemical properties of pomegranate (<i>Punica granatum</i> L.) cultivars in Iran <i>Ali Mohammad Rahimi, Mehrdad Jafarpour, and Mohammad Pessarakli</i>	1437
Foliar status and factors affecting foliar and soil chemistry in a natural aleppo pine forest <i>Panagiotis Michopoulos, Eleni Farmaki, and Nikolaos Thomaidis</i>	1443
Physiological responses of pepper plant (<i>Capsicum annuum</i> L.) to drought stress <i>Sara Mardani, Sayyed Hassan Tabatabaei, Mohammad Pessarakli, and Hamid Zareabyaneh</i>	1453
Enrichment of mineral nutrient content of cabbage through selection of cultivars and soil fertility regimes <i>Allen V. Barker, M. J. Meagy, Touria E. Eaton, Emad Jahanzad, and Gretchen M. Bryson</i>	1465
Effects of silicon on the growth of maize seedlings under normal, aluminum, and salinity stress conditions <i>Kourosh Delavar, Faezeh Ghanati, Hassan Zare-Maivan, and Mehrdad Behmanesh</i>	1475
Nutrient transformations in soil amended with rock phosphate enriched composts for improving productivity of wheat-green gram sequence <i>P. C. Moharana and D. R. Biswas</i>	1485
Effects of salinity, drought, and priming treatments on seed germination and growth parameters of <i>Lathyrus sativus</i> L. <i>Somayeh Gheidary, Davoud Akhzari, and Mohammad Pessarakli</i>	1507

Volume 40 Number 11 2017

ARTICLES

Effectiveness of Fe ³⁺ -citrate and Fe ³⁺ -edta in ameliorating arsenic-toxicity (chlorosis) in hydroponic rice <i>M. R. Shaibur and S. Kawai</i>	1515
Relative tolerance to aluminium and manganese toxicities of <i>Phalaris</i> , cocksfoot, and tall fescue genotypes developed for low rainfall environments <i>Yantao Song, Richard C. Hayes, Graeme A. Sandral, Brett J. McVittie, Andrew Price, Graeme J. Poile, Wei Zheng, and Guangdi D. Li</i>	1526
Effect of root pruning and nitrogen fertilization on growth of young 'fuji' apple (<i>Malus domestica</i> borkh.) trees <i>Chonghui Fang, Keyou Zhou, Yongwang Zhang, Bingzhi Li, and Mingyu Han</i>	1538

Selecting cotton yield response function to estimate profit-maximizing potassium fertilization rates for cotton production in Tennessee <i>Xavier Harmon, Christopher N. Boyer, C. Owen Gwathmey, James A. Larson, and Roland K. Roberts</i>	1547
Selenium in lemon balm plants: Productivity, phytotoxicity and drought alleviation <i>Ghader Habibi and Zahra Alizade</i>	1557
Root water uptake of pepper plants (<i>Capsicum annuum</i> L.) under deficit irrigation system <i>Sara Mardaninejad, Hamid Zarebyaneh, Sayyed Hassan Tabatabaei, Mohammad Pessarakli, and Abdolrahman Mohamadkhani</i>	1569
Foliar phosphorus fertilization of common bean complementing phosphate fertilization at sowing <i>Rogério Nunes Gonçalves, Adilson Pelá, and Itamar Rosa Teixeira</i>	1580
Interactive effects of zinc and boron on growth, photosynthesis, and water relations in pistachio <i>Vahid Tavallali</i>	1588
Effect of manures and inorganic fertilizers on growth, yield, and essential oil of damask rose (<i>Rosa damascena</i> Mill.) and chemical properties of soil in western Himalayas <i>Rakesh Kumar, Saurabh Sharma, Swati Sood, Munish Kaundal, and Vijai K. Agnihotri</i>	1604
Impact of single and co-inoculations with Rhizobial and PGPR isolates on chickpea (<i>Cicer arietinum</i>) in cereal-growing zone soil <i>Saadia Laabas, Zineb Faiza Boukhatem, Zoulikha Bouchiba, Sarra Benkritly, Nour ElHouda Abed, Halima Yahiaoui, Abdelkader Bekki, and Hassini Tsaki</i>	1616
Lettuce yield and root activity as affected by an ion exchange substrate and mineral nutrition level <i>Renata Matraszek and Mariola Chomczyńska</i>	1627
Effects of raw materials on vermicompost qualities <i>Rahman A'ali, Mehrdad Jafarpour, Elahe Kazemi, and Mohammad Pessarakli</i>	1635
Effects of sprayed humic acid, iron, and zinc on quantitative and qualitative characteristics of niger plant (<i>Guizotia abyssinica</i> L.) <i>Ali Tadayyon, Sedigheh Beheshti, and Mohammad Pessarakli</i>	1644
Effects of different nitrogen forms on potato growth and development <i>Suyala Qiqige, Liguojia, Yonglin Qin, Yang Chen, and Mingshou Fan</i>	1651

Volume 40 Number 12 2017

ARTICLES

Improvement of drought tolerance in Tobacco (<i>Nicotiana rustica</i> L.) plants by Silicon <i>Roghieh Hajiboland, Leila Cheraghvareh, and Charlotte Poschenrieder</i>	1661
Factors affecting shoot and root apical meristem tissue culture of Thai supersweet corn (<i>Zea mays</i> var. <i>rugosa</i>) <i>Lavanya Silvarajan, Nahid Kalhori, R. Nulit, Faridah Qamaruz Zaman, Rambod Abiri, and Narges Atabaki</i>	1677
Mineral nitrogen impairs the biological nitrogen fixation in soybean of determinate and indeterminate growth types <i>Diogo Fernando Saturno, Paula Cerezini, Pedro Moreira da Silva, Arnold Barbosa de Oliveira, Maria Cristina Neves de Oliveira, Mariangela Hungria, and Marco Antonio Nogueira</i>	1690
Effects of ammonium nitrate encapsulated with coal combustion byproducts on nutrient accumulation by corn and rye <i>Eton E. Codling</i>	1702

Effect of waste water and fly ash application on physiological determinants, yield, and heavy metal contents of yellow mustard (<i>B. campestris</i> cv. P. Gold) <i>Seema Sahay, Saba Iqbal, Farha Ashfaq, and Akhtar Inam</i>	1710
Foliar manganese, zinc and boron application effects on mineral nutrition of an experimental olive grove (cv. "Chondrolia Chalkidikis") <i>T. Chatzistathis, A. Delviniotis, A. Panagakos, A. Giannakoula, V. Tranaka, and A. Molassiotis</i>	1728
Mineral composition and growth responses of tomato (<i>Solanum lycopersicum</i> L.) plants to irrigation with produced waters from the oil industry <i>José F. Martel-Valles, Adalberto Benavides-Mendoza, and Luis A. Valdez-Aguilar</i>	1743
Nutrient uptake and residual effect of organic treatments applied to vegetable–rice system in an acid soil <i>A. Velmurugan and Palanivel Swarnam</i>	1755
Effects of nitrogen and phosphorus on the microstructure and ultrastructure of tomato leaves (<i>Solanum lycopersicum</i>) <i>Qinglin Li, Hanping Mao, Zhiyu Zuo, Xiaodong Zhang, Jiheng Ni, and Jun Sun</i>	1773
Diagnosis and recommendation integrated system approach for major and micronutrient diagnostic norms for apple (<i>Malus Domestica</i> Borkh) under varying ages and management practices of apple orchards <i>J. A. Sofi, R. K. Rattan, N. A. Kirmani, M. H. Chesti, and I. Bisati</i>	1784
Screening tea varieties for nitrogen efficiency <i>Chang-Song Chen, Qiu-Sheng Zhong, Zheng-He Lin, Wen-Quan Yu, Ming-Kuang Wang, Zhi-Hui Chen, and Xiao-Mei You</i>	1797