

# Journal of Plant Nutrition

## CONTENTS

Volume 35, Number 1 2012

---

- ALTERATION IN THE MINERAL NUTRITION OF PURELY SYMBIOTIC AND NITRATE-FED NODULATED LEGUMES EXPOSED TO ELEVATED UV-B RADIATION** □ Samson B. M. Chimphango, Charles F. Musil, and Felix D. Dakora 1
- MUNGBEAN RESPONSE TO TILLAGE SYSTEMS AND PHOSPHORUS MANAGEMENT UNDER MOISTURE STRESS CONDITION** □ Amanullah Jan, Khurshed Alam, Amanullah, and B. A. Stewart 21
- GENOTYPIC VARIATION OF PHOSPHORUS USE EFFICIENCY AMONG MOROCCAN FABA BEAN VARIETIES (*VICIA FABA MAJOR*) UNDER RAINFED CONDITIONS** □ K. Daoui, M. Karrou, R. Mrabet, Z. Fatemi, X. Draye, and J. F. Ledent 34
- EFFECT OF 5-AMINOLEVULINIC ACID ON LEAF SENESCENCE AND NITROGEN METABOLISM OF PAKCHOI UNDER DIFFERENT NITRATE LEVELS** □ Zhen Yu Wei, Zhi Ping Zhang, Marissa R. Lee, Yong Ping Sun, and Liang Ju Wang 49
- CHICKPEA RESPONSE TO TILLAGE SYSTEM AND PHOSPHORUS MANAGEMENT UNDER DRYLAND CONDITIONS** □ Amanullah Jan, Amanullah, Habib Akbar, and B. C. Blaser 64
- SUBCELLULAR AND MOLECULAR DISTRIBUTION OF CADMIUM IN TWO RICE GENOTYPES WITH DIFFERENT LEVELS OF CADMIUM ACCUMULATION** □ Hui Yu, Zuoxiang Xiang, Yun Zhu, Junli Wang, Zhijian Yang, and Zhongyi Yang 71
- CUMULATIVE AND RESIDUAL EFFECTS OF ZINC SULFATE ON GRAIN YIELD, ZINC, IRON, AND COPPER CONCENTRATION IN CORN AND WHEAT** □ Reza Soleimani 85
- PURIFICATION OF REFINERY WASTEWATER BY DIFFERENT PERENNIAL GRASSES GROWING IN A FLOATING BED** □ Hong Li, Hulin Hao, Xiaoe Yang, Lvcheng Xiang, Fengliang Zhao, Hong Jiang, and Zhenli He 93

## *Contents*

- MINERAL COMPOSITION OF STRAWBERRY, MULBERRY AND CHERRY FRUITS AT DIFFERENT RIPENING STAGES AS ANALYZED BY INDUCTIVELY COUPLED PLASMA-OPTICAL EMISSION SPECTROSCOPY** □ Tahir Mahmood, Farooq Anwar, Tahira Iqbal, Ijaz Ahmad Bhatti, and Muhammad Ashraf **111**
- PHOSPHORUS AND ZINC INTERACTIONS AND THEIR RELATIONSHIPS WITH OTHER NUTRIENTS IN MAIZE GROWN IN CHELATOR-BUFFERED NUTRIENT SOLUTION** □ Brandt A. Nichols, Bryan G. Hopkins, Von D. Jolley, Bruce L. Webb, Bryan G. Greenwood, and Joshua R. Buck **123**
- RELATIONSHIP OF IRON-MANGANESE TOXICITY DISORDER IN MARIGOLD TO MANGANESE AND MAGNESIUM NUTRITION** □ Touria El-Jaoual Eaton, Douglas A. Cox, and Allen V. Barker **142**