

Journal of Plant Nutrition

CONTENTS

Volume 37, Number 1

2014

-
- EFFECTS OF ELEMENTAL SULFUR AND MYCORRHIZAE ON THE YIELD OF WHEAT IN DIFFERENT SOILS** □ Hüseyin Karaca 1
- INFLUENCE OF ROOTSTOCK ON MINERAL UPTAKE AND SCION GROWTH OF 'GOLDEN DELICIOUS' AND 'ROYAL GALA' APPLES** □ Mohammad E. Amiri, Esmaeil Fallahi, and Masumeh Safi-Songhorabad 16
- APPLICATION OF *TRICHODERMA HARZIANUM* T22 AS A BIOFERTILIZER POTENTIAL IN MAIZE GROWTH** □ Samia Ageeb Akladious and Salwa Mohamed Abbas 30
- EFFECT OF IRON DEFICIENCY ON ROOT FERRIC CHELATE REDUCTASE, PROTON EXTRUSION, BIOMASS PRODUCTION AND MINERAL ABSORPTION OF CITRUS ROOT STOCK ORANGE JASMINE (*MURRAYA EXOTICA* L.)** □ Cahyo Wulandari, Sakiko Muraki, Asako Hisamura, Hiroki Ono, Kayoko Honda, Tomoyuki Kashima, Siti Subandiyah, and Yoshikuni Masaoka 50
- GROWTH, PHOTOSYNTHESIS, CHLOROPHYLL CONTENT AND NUTRIENT PARTITIONING OF KENAF AS INFLUENCED BY DIFFERENT LEVELS OF CARBON** □ M. D. Hossain, M. M. Hanafi, H. Jol, and A. H. Hazandy 65
- RESPONSE OF WHEAT TO INOCULATION WITH MYCORRHIZAE ALONE AND COMBINED WITH SELECTED RHIZOBACTERIA INCLUDING *FLAVOBACTERIUM* SP. AS A POTENTIAL BIOINOCULANT** □ Maheshwar Singh Rathi, Sangeeta Paul, and Jyoti Kumar Thakur 76
- MANAGEMENT OF UREA-CONTAINING FERTILIZERS FOR NO-TILLAGE CORN USING NITROGEN STABILIZERS AND COATED-GRANULE TECHNOLOGY** □ W. B. Gordon 87
- ROOT GROWTH OF UPLAND RICE GENOTYPES AS INFLUENCED BY NITROGEN FERTILIZATION** □ N. K. Fageria, M. C. S. Carvalho, and F. C. dos Santos 95
- EFFECTS OF MYCORRHIZAL FUNGI ON TOLERANCE CAPABILITY OF CORN GROWN UNDER SALT STRESS CONDITION** □ Taliha Uysal Boyacioglu and Refik Uyanöz 107

Contents

POTASSIUM UPTAKE CHARACTERISTICS OF TWO MAIZE HYBRIDS AND THEIR PARENTS UNDER THE STRESS FROM A LOW AMOUNT OF POTASSIUM □ Huiyan Ju, Junfeng Liu, Jie Gao, Yexin Fang, Mingdi Bian, and Zhenming Yang 123

ANTIOXIDANT DEFENSE MECHANISM IN PIGEON PEA UNDER COBALT STRESS □ Rajeev Gopal 136

CONTENTS **Volume 37, Number 2** **2014**

APPLICATION OF INCREASING LEVELS OF ZINC TO SOIL REDUCED ACCUMULATION OF CADMIUM IN LUPIN GRAIN □ R. F. Brennan and M. D. A. Bolland 147

EFFECTS OF FOLIAR AND SOIL APPLICATIONS OF DIFFERENT MANGANESE FERTILIZERS ON YIELD AND NET RETURN OF BEAN □ Aynur Ozbahce and Mehmet Zengin 161

BORON NUTRITION OF PEANUT GROWN IN BORON-DEFICIENT CALCAREOUS SOILS: GENOTYPIC VARIATION AND PROPOSED DIAGNOSTIC CRITERIA □ E. Rafique, M. Mahmood-ul-Hassan, M. Yousra, I. Ali, and F. Hussain 172

THE DECLINE IN THE AVAILABILITY OF COPPER FERTILIZER APPLIED TO YELLOW BROWN LATERITIC SAND FOR THE GROWTH AND UPTAKE OF SUBTERRANEAN CLOVER □ R. F. Brennan 184

EFFECT OF DELAYED EMERGENCE ON CORN (*ZEA MAYS* L.) GRAIN YIELD □ Emily Rutto, Cody Daft, Jonathan Kelly, Bee Khim Chim, Jeremiah Mullock, Guilherme Torres, and William Raun 198

ARBUSCULAR MYCORRHIZA, *AZOSPIRILLUM* AND CHEMICAL FERTILIZERS APPLICATION TO BABY CORN (*ZEA MAYS* L.): EFFECTS ON PRODUCTIVITY, NUTRIENTS USE EFFICIENCY, ECONOMIC FEASIBILITY AND SOIL FERTILITY □ Ravi Chandra Sharma and Pabitra Banik 209

EVALUATION OF DIFFERENT IRON SOURCES FOR IRON CHLOROSIS RECOVERY IN LOW-CHILL PEACH CULTIVARS □ Binayak Chakraborty, P. N. Singh, A. K. Singh, and P. C. Srivastava 224

OPTIMAL N FERTILIZATION, USING TOTAL AND MINERAL N, AFFECTING CORN (*ZEA MAYS* L.) GRAIN N UPTAKE □ M. Miransari and A. F. Mackenzie 232

Contents

YIELD AND YIELD COMPONENTS OF HYBRID RICE AS INFLUENCED BY NITROGEN FERTILIZATION AT DIFFERENT ECO-SITES □ Ganghua Li, Jun Zhang, Chongdang Yang, Yunpan Song, Chengyan Zheng, Zhenghui Liu, Shaohua Wang, She Tang, and Yanfeng Ding	244
LEAF NUTRIENT CONTENT AND TOMATO FRUIT YIELD AS AFFECTED BY SINGLE SUPER PHOSPHATE RATES APPLIED BY DRIP IRRIGATION □ Paulo Cezar Rezende Fontes, Juvenal Lopes Loures, Everardo Chartuni Mantovani, and Jaime Barros da Silva Filho	259
RELIABILITY OF PETIOLE SAP TEST FOR N NUTRITIONAL STATUS ASSESSING IN PROCESSING TOMATO □ Michela Farneselli, Francesco Tei, and Eric Simonne	270
EFFECT OF LATE-SEASON FERTILIZATION ON NUTRIENT RESERVES AND CARBOHYDRATE ACCUMULATION IN BAREROOT <i>LARIX OLGENSIS</i> SEEDLINGS □ Hongxu Wei, Chengyang Xu, Lüyi Ma, Jie Duan, Lini Jiang, and Jun Ren	279
NUTRIENT UPTAKE AND USE EFFICIENCY BY TROPICAL LEGUME COVER CROPS AT VARYING PH OF AN OXISOL □ N. K. Fageria, V. C. Baligar, and Y. C. Li	294
GENOTYPIC DIFFERENCES IN PHOSPHORUS UPTAKE AND UTILIZATION OF WATERMELON UNDER LOW PHOSPHORUS STRESS □ Xiangxiang Meng, Na Liu, Li Zhang, Jingxua Yang, and Mingfang Zhang	312

CONTENTS

Volume 37, Number 3 2014

SELENIUM FERTILIZATION INFLUENCES BIOMASS, ELEMENTAL ACCUMULATIONS, AND PHYTOCHEMICAL CONCENTRATIONS IN WATERCRESS □ Laura K. Manion, David E. Kopsell, Dean A. Kopsell, Carl E. Sams, and Robert L. Rhykerd	327
IMPACT OF SELENIUM FERTILIZATION ON GLUCOSINOLATE CONCENTRATION IN <i>ARABIDOPSIS THALIANA</i> AND RAPID CYCLING <i>BRASSICA OLERACEA</i> □ T. Casey Barickman, Dean A. Kopsell, and Carl E. Sams	343
EFFECT OF APPLIED LIME AND BORON ON THE AVAILABILITY OF NUTRIENTS IN AN ACID SOIL □ Mandira Barman, Lalit Mohan Shukla, Siba Prasad Datta, and Raj Kumar Rattan	357

Contents

SODIUM CHLORIDE PRIMING IMPROVES SALINITY RESPONSE OF TOMATO AT SEEDLING STAGE □ Özlem Darcansoy İşeri, Feride İffet Sahin, and Mehmet Haberal	374
STINGING NETTLE (<i>URTICA DIOICA</i> L.) GROWTH AND MINERAL UPTAKE FROM LEAD-ARSENATE CONTAMINATED ORCHARD SOILS □ Eton E. Codling and Kipkoriony L. Rutto	393
EVALUATION OF TWO CROP CANOPY SENSORS FOR NITROGEN RECOMMENDATIONS IN IRRIGATED MAIZE □ Tim Shaver, Raj Khosla, and Dwayne Westfall	406
NUTRITIONAL DIAGNOSIS AND CORRECTION OF SHOOT DIEBACK OF RED BAYBERRY (<i>MYRICA RUBRA</i> SIEB. ET ZUCA) □ C. F. Meng, P. K. Jiang, Z. H. Cao, Y. F. Li, Q. F. Xu, and J. C. Zheng	420
CO-INOCULATION OF SOYBEAN (<i>GLYCINE MAX</i>) WITH <i>ACTINOMYCETES</i> AND <i>BRADYRHIZOBIUM JAPONICUM</i> ENHANCES PLANT GROWTH, NITROGENASE ACTIVITY AND PLANT NUTRITION □ Pongrawee Nimnoi, Neelawan Pongsilp, and Saisamorn Lumyong	432
MODULATION OF PHYSIOLOGICAL AND BIOCHEMICAL METABOLITES IN SALT STRESSED RICE BY FOLIAR APPLICATION OF ZINC □ M. Yasin Ashraf, Naveed Iqbal, M. Ashraf, and Javed Akhter	447
ELEMENTAL COMPOSITION OF PEPPER PLANTS FERTILIZED WITH PELLETIZED POULTRY MANURE □ Ozge Sahin, Mehmet B. Taskin, Yusuf K. Kadioglu, Ali Inal, David J. Pilbeam, and Aydin Gunes	458
INFLUENCE OF ALUMINUM ON MINERAL NUTRIENT UPTAKE AND ACCUMULATION IN <i>URTICA PILULIFERA</i> L. □ Ilhan Dogan, Ibrahim Ilker Ozyigit, and Goksel Demir	469

CONTENTS

Volume 37, Number 4 2014

GENETICALLY MODIFIED AND CONVENTIONAL DRY BEAN GENOTYPE RESPONSES TO SOIL FERTILITY □ Josias C. Faria and N. K. Fageria	483
EFFECTS OF GREEN MANURE CONTINUOUS APPLICATION ON SOIL MICROBIAL BIOMASS AND ENZYME ACTIVITY □ Xiefeng Ye, Hongen Liu, Zheng Li, Yong Wang, Yingyuan Wang, Hongfeng Wang, and Guoshun Liu	498

Contents

- METABOLIC CHANGE, TILLERING AND ROOT SYSTEM OF BRACHIARIA BRIZANTHA IN RESPONSE TO PHOSPHORUS AND ZINC NUTRITION** □ Lucíola E. C. Martins, Francisco A. Monteiro, and Bruno C. Pedreira 509
- EFFECTS OF SALINITY STRESS ON PHYSIOLOGICAL PERFORMANCE OF VARIOUS WHEAT AND BARLEY CULTIVARS** □ Mohammad Hossein Izadi, Javad Rabbani, Yahya Emam, Mohammad Pessarakli, and Ahmad Tahmasebi 520
- PHOSPHORUS USE EFFICIENCY FOR SYMBIOTIC NITROGEN FIXATION VARIES AMONG COMMON BEAN RECOMBINANT INBRED LINES UNDER P DEFICIENCY** □ Fatma Tajini and Jean-Jacques Drevon 532
- RESPONSE OF LISIANTHUS TO IRRIGATION WITH SALINE WATER: ION RELATIONS** □ Luis A. Valdez-Aguilar, Catherine M. Grieve, and James A. Poss 546
- DAIRY MANURE AND NITROGEN FERTILIZER EFFECTS ON RESIDUAL NITRATE AND PHOSPHATE, AND WHEAT YIELD IN A SANDY CLAY LOAM SOIL** □ M. Iqbal, O. J. Idowu, A. Hassan, A. Khan, and M. Amjad 562
- MAIZE HYBRIDS DIFFER IN THEIR 24-H PATTERNS OF PHYTOSIDEROPHORE RELEASE** □ Mark L. Bernards, Emily A. Buxton, Von D. Jolley, Amanda K. Shiffler, Trenton F. Stanger, and Jennifer Rands 575
- INTERACTIVE EFFECTS OF SALINITY AND N ON PEPPER (CAPSICUM ANNUUM L.) YIELD, WATER USE EFFICIENCY AND ROOT ZONE AND DRAINAGE SALINITY** □ G. Duygu Semiz, Donald L. Suarez, Ali Ünlükara, and Engin Yurtseven 595
- EFFECT OF NITROGEN SOURCES AND RATES ON YIELD AND QUALITY OF SILAGE CORN** □ Maryam Safdarian, Jamashid Razmjoo, and M. Movahhedi Dehnavi 611
- IMPACT OF SULFUR FERTILIZATION ON DIFFERENT FORMS AND BALANCE OF SOIL SULFUR AND THE NUTRITION OF WHEAT IN WHEAT-SOYBEAN CROPPING SEQUENCE IN TARAI SOIL** □ Shiveshwar Pratap Singh, Room Singh, Mukesh Prasad Singh, and Vijay Prasad Singh 618