

TABLE OF CONTENTS

Volume 4 Number 12C

December 2013

Quantitative Detection of Inositol Hexakisphosphate (InsP₆) in Crop Plants Using Polyacrylamide Gel Electrophoresis (PAGE)

M. Alimohammadi, N. Ali, M. Khodakovskaya.....1

Effect of MeJA and Light on the Accumulation of Betulin and Oleanolic Acid in the Saplings of White Birch (*Betula platyphylla* Suk.)

J. Yin, H. S. Ma, Y. Gong, J. L. Xiao, L. C. Jiang, Y. G. Zhan, C. X. Li, C. L. Ren, Y. B. Yang.....7

Fluoride Exposure Compromises Gas Exchange of Plants

G. L. Mesquita, E. C. Machado, R. Machado, H. Cantarella, D. M. Jr.....16

Molecular Basis of Aluminium Toxicity in Plants: A Review

N. Gupta, S. S. Gaurav, A. Kumar.....21

Responses of Root Hydraulic Properties and Transpirational Factors to a Top Soil Drying in *Cajanus cajan* and *Sesbania sesban*

N. Sekiya, H. Araki.....38

Expression Pattern of Sucrose Transporters in *Arabidopsis thaliana* during Aphid (*Myzus persicae*) Infestation

N. K. Dubey, A. Idris, A. K. Verma, K. Chandrashekhar, K. D. Pandey.....47

Physio-Biochemical and Microsatellite Based Profiling of Lowland Rice (*Oryza sativa* L.) Landraces for Osmotic Stress Tolerance

R. Roychowdhury, J. Karmakar, M. K. Adak, N. Dey.....52

Gene Expression: A Review on Methods for the Study of Defense-Related Gene Differential Expression in Plants

A. Casassola, S. P. Brammer, M. S. Chaves, J. A. Martinelli, M. F. Grando, N. D. Denardin.....64

Stress-Induced Flowering in *Pharbitis*—A Review

K. C. Wada, M. Yamada, K. Takeno.....74

Stomatal Abundance and Distribution in *Prosopis strombulifera* Plants Growing under Different Iso-Osmotic Salt Treatments

M. A. Reginato, H. Reinoso, A. S. Llanes, M. V. Luna.....80

Expression Analysis of Two Genes Coding for Trehalose-6-Phosphate Synthase (TPS), in Sugarcane (*Saccharum* spp.) under Water Stress

N. N. Junior, M. S. P. Nicolau, L. J. Mantovanini, S. M. Zingaretti.....91

Effect of Ambient UV-B on Stomatal Density, Conductance and Isotope Discrimination in Four Field Grown Soybean [*Glycine max* (L.) Merr.] Isolines

D. C. Gitz III, S. J. Britz, J. H. Sullivan.....100

**Effect of Regulated Deficit Irrigation on Productivity, Quality
and Water Use in Olive cv “Manzanilla”**

- R. L. Grijalva-Contreras, R. Macías-Duarte, G. Martínez-Díaz, F. Robles-Contreras,
M. de J. Valenzuela-Ruiz, F. Nuñez-Ramírez.....109

**Gas Exchange and Production of Photosynthetic Pigments of *Piper aduncum*
L. Grown at Different Irradiances**

- F. V. Pacheco, H. R. de O. Silveira, A. A. Alvarenga, I. C. A. Alvarenga, J. E. B. P. Pinto, J. M. S. Lira.....114

**Yield and Yield Components of Bread Wheat as Influenced by Water Stress,
Sowing Date and Cultivar in Sokoto, Sudan Savannah, Nigeria**

- M. B. Sokoto, A. Singh.....122

Evaluation of Tomato Genetic Resources for Response to Water Deficit

- A. Sacco, B. Greco, A. Di Matteo, R. De Stefano, A. Barone.....131

**Impact of Rice Nursery Nutrient Management, Seeding Density
and Seedling Age on Yield and Yield Attributes**

- B. B. Adhikari, B. Mehera, S. Haefele.....146

**Comparative Morpho-Biochemical Responses of Sunflower Lines Sensitive
and Tolerant to Water Stress**

- A. Andrade, A. Vigliocco, S. Alemano, A. Llanes, G. Abdala.....156

The figure on the front cover is from the article published in American Journal of Plant Sciences, 2013, Vol. 4, No. 12C, pp. 100-108 by Dennis C. Gitz III, Steven J. Britz and Joseph H. Sullivan.