

Vol. 4, No. 3, July 2010

ISSN:1735-6814

International Journal of  
*Plant Production*

© Gorgan University of Agricultural Sciences and Natural Resources

# International Journal of Plant Production



Gorgan University of Agricultural  
Sciences and Natural Resources

**Executive Director:**

Rahmani, R., President of GUASNR, Gorgan, Iran

**Editor-in-Chief:**

Soltani, A., GUASNR, Gorgan, Iran

**Editors:**

Bagherieh-Najjar, M.B., Golestan University, Gorgan, Iran

Khormali, F., GUASNR, Gorgan, Iran

Sadeghipour, H.R., Golestan University, Gorgan, Iran

**Editorial Board Members:**

Ehdaie, B., University of California, Riverside, CA, USA

Fallahi, E., University of Idaho, Parma, Idaho, USA

Gholipour, M., Shahrood University of Technology, Shahrood, Iran

Gowda, C.L.L., ICRISAT, Patancheru, India

Hashemi, A.M., University of Massachusetts Amherst, MA, USA

Hoisington, A., ICRISAT, Patancheru, India

Hoogenboom, G., The University of Georgia, Griffin, GA, USA

Kashaninejad, M., GUASNR, Gorgan, Iran

van Keulen, H., Wageningen University, Wageningen, The Netherlands

Manschadi, A.M., University of Bonn, Bonn, Germany

Pala, M., ICARDA, Aleppo, Syria

Robertson, M.J., CSIRO, Brisbane, Australia

Sepaskhah, A.R., Shiraz University, Shiraz, Iran

Sharma, K., ICRISAT, Patancheru, India

Sharifani, M.M., GUASNR, Gorgan, Iran

Shiraiwa, T., Kyoto University, Kyoto, Japan

Siddique, K., The University of Western Australia, Crawley, Australia

Waliyar, F., ICRISAT, Patancheru, India

Yu, Q., Chinese Academy of Sciences, Beijing, China

**Aims and Scope:** International Journal of Plant Production (IJPP), a peer reviewed research journal, is published by Gorgan University of Agricultural Sciences and Natural Resources (GUASNR), Gorgan, Iran in yearly volumes of four issues. Special issues devoted to single topics are also published. IJPP publishes original research papers and invited review papers on agricultural and resource plants, their production and related subjects.

Papers with a background in soil science, meteorology, product process and post harvest management will be accepted provided that they are strongly related to plant production. Papers on plant molecular biology, plant biotechnology and genomics should indicate how their findings can be applied to problem solving in plant production. Papers should be original, unpublished and not being considered for publication elsewhere. Papers based on limited data or of local importance, and results from routine experiments will not normally be considered for publication.

**Publishing plan:** IJPP is published in yearly volumes of four issues on January, April, July and October.

**Contact information:** Journals Office, Vice-Presidency for Research, Gorgan University of Agricultural Sciences and Natural Resources, Gorgan 49138-15739, Iran.

Website: [www.ijpp.info](http://www.ijpp.info), Email: [ijpp@gau.ac.ir](mailto:ijpp@gau.ac.ir), Phone: +98-171-2242438, Fax: +98-171-2225989

**Internal Manager:** N. Khalkhali



## Contents

S.V. Eslami, G.S. Gill, G. McDonald Effect of water stress during seed development on morphometric characteristics and dormancy of wild radish ( <i>Raphanus raphanistrum</i> L.) seeds.....	159
M. Krishnaraj, K. Manibhushanrao, N. Mathivanan A comparative study of phenol content and antioxidant activity between non-conventional <i>Curcuma caesia</i> Roxb. and <i>Curcuma amada</i> Roxb .....	169
A.R. Sepaskhah, N. Yarami Evaluation of macroscopic water extraction model for salinity and water stress in saffron yield production .....	175
Suriyan Cha-um, Kongake Siringam, Niran Juntawong, Chalernpol Kirdmanee Water relations, pigment stabilization, photosynthetic abilities and growth improvement in salt stressed rice plants treated with exogenous potassium nitrate application .....	187
G. Mohammadi-Nejad, R.K. Singh, A. Arzani, A.M. Rezaie, H. Sabouri, G.B. Gregorio Evaluation of salinity tolerance in rice genotypes.....	199
S. Ekhteraei Tousi, T. Radjabian, H. Ebrahimzadeh, V. Niknam Enhanced production of valerenic acids and valepotriates by <i>in vitro</i> cultures of <i>Valeriana officinalis</i> L .....	209
N. Phakamas, A. Patanothai, K. Pannangpetch, S. Jogloy, G. Hoogenboom Determination of adaptive responses of peanut genotypes and patterns of genotype × location interaction using the CSM-CROPGRO-Peanut model.....	223
Diego Barranco, Hicran Ercan, Concepción Muñoz-Díez, Angelina Belaj, Octavio Arquero Factors influencing the efficiency of foliar sprays of monopotassium phosphate in the olive.....	235