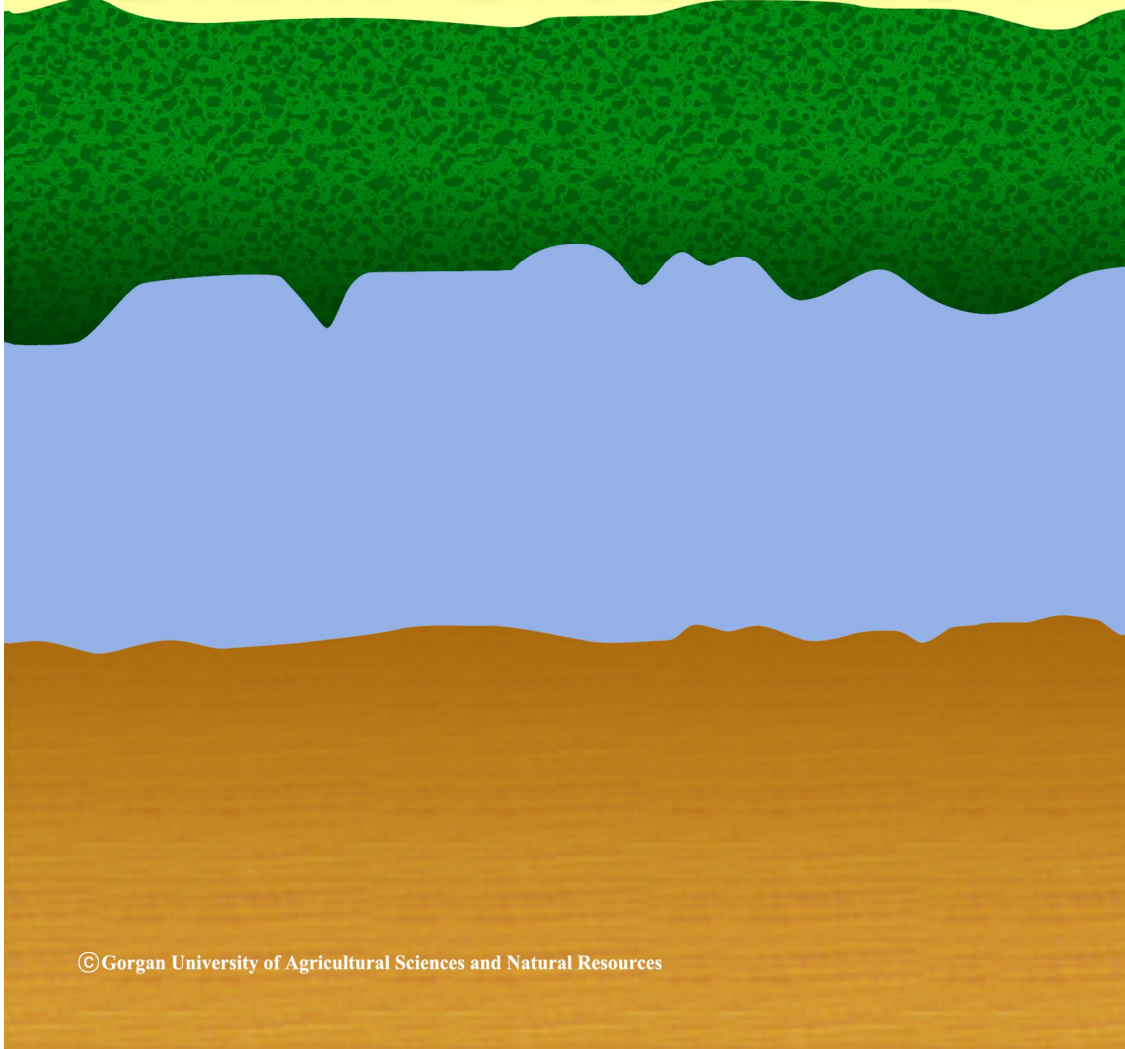


Vol. 11, No. 1, January 2017

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:**

Najafinejad, A., President of GUASNR, Gorgan, Iran

## **Editor-in-Chief:**

Soltani, A., GUASNR, Gorgan, Iran

## **Editors:**

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

Kamkar, B., GUASNR, 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

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

Hoogenboom, G., Washington State University, Prosser, WA, USA

Kashaninejad, M., GUASNR, Gorgan, Iran

Manschadi, A.M., University of Natural Resources and Life Sciences, Vienna, Austria

Montemurro, F., Research Unit for Cropping Systems in Dry Environments (SCA), Metaponto, Italy

Pala, M., Ankara, Turkey

Robertson, M.J., CSIRO, Wembley, Australia

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

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

Shiraiwa, T., Kyoto University, Kyoto, Japan

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

Walayar, F., ICRISAT, Bamako, Mali

Yu, Q., University of Technology, Sydney, Australia

## **Editorial Manager:**

Hajjarpoor, A., GUASNR, Gorgan, Iran

## **Executive Manager:**

Eimantalab, M., GUASNR, Gorgan, Iran

**Aims and Scope:** International Journal of Plant Production (IJPP) publishes original research papers and review papers related to physiology, ecology and production of *field crops and forages* at field, farm and landscape level. IJPP does not publish papers with a background in genetics and plant breeding, plant molecular biology, plant biotechnology, as well as soil science, meteorology, product process and post-harvest management unless they are strongly related to plant production under field conditions.

Papers should be original, unpublished and not being considered for publication elsewhere.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. Field experiments should include at least two years and/or two environments. Papers on plants other than field crops and forages, and papers based on controlled-environment experiments will not be considered.

Preferred topics are: (1) yield gap in cropping systems: estimation, causes and closing measures, (2) ecological intensification of plant production, (3) improvement of water and nutrients management in plant production systems, (4) environmental impact of plant production, (5) climate change and plant production, and (6) responses of plant communities to extreme weather conditions.

**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: +98-17-32245884, Fax: +98-17-32225989



## Contents

|   |     |
|---|-----|
| F. Rashidi, M.M. Majidi, M. Pirboveiry<br>Response of different species of Brassica to water deficit.....   | 1   |
| C. Patanè, S.L. Cosentino, U. Anastasi<br>Sowing time and irrigation scheduling effects on seed yield and fatty acids profile of<br>sunflower in semi-arid climate.....   | 17  |
| D. Tsamaidi, D. Daferera, I.C. Karapanos, H.C. Passam<br>The effect of water deficiency and salinity on the growth and quality of fresh dill ( <i>Anethum<br/>graveolens</i> L.) during autumn and spring cultivation .....   | 33  |
| X. Xu, L. Wang, D. Sun, L. Liu, K.E. Banson<br>The Impact of Climate Change on Yield Potential of Maize across China.....   | 47  |
| F. Mahmood, H. Belhouchette, W. Nasim, T. Shahzad, S. Hussain, O. Therond, S. Fahad,<br>S. Refat Sultana, J. Wery<br>Economic and environmental impacts of introducing grain legumes in farming systems of<br>Midi-Pyrenees region (France): A simulation approach..... | 65  |
| X. Zeng, Y. Peng<br>Stimulated fine root growth benefits maize nutrient uptake under optimized nitrogen management ..   | 89  |
| E. Shakeri, Y. Emam, S.A. Tabatabaei, A.R. Sepaskhah<br>Evaluation of grain sorghum ( <i>Sorghum bicolor</i> L.) lines/cultivars under salinity stress using<br>tolerance indices.....  | 101 |
| Z. Bishaw, D. Alemu<br>Farmers' perceptions on improved bread wheat varieties and formal seed supply in Ethiopia.....   | 117 |
| I. Celik, H. Günal, M. Acar, M. Gök, Z. Bereket Barut, H. Pamiralan<br>Long-term tillage and residue management effect on soil compaction and nitrate leaching in a<br>Typic Haploxerert soil .....   | 131 |
| C.R. Mi, Q. Zu, L. He, F. Huettmann, N. Jin, J. Li<br>Climate change would enlarge suitable planting areas of sugarcanes in China .....   | 151 |
| M.H. Shahrokhnia, A.R. Sepaskhah<br>Safflower model for simulation of growth and yield under various irrigation strategies,<br>planting methods and nitrogen fertilization .....  | 167 |
| K.S. Reddy, V. Maruthi, M. Kumar, P.K. Pankaj, A.G.K. Reddy, B. Umesha<br>Enhancing economic water productivity under on farm reservoirs in diversified rainfed<br>cropping systems.....  | 193 |