



**AKADEMIJA NAUKA I UMJETNOSTI BOSNE I HERCEGOVINE  
АКАДЕМИЈА НАУКА И УМЈЕТНОСТИ БОСНЕ И ХЕРЦЕГОВИНЕ  
ACADEMY OF SCIENCES AND ARTS OF BOSNIA AND HERZEGOVINA**

---

SPECIAL EDITIONS  
VOL. CXL

---

Department of Natural Sciences and Mathematics  
Volume 18

---

---

**INTERNATIONAL CONFERENCE**

**"MEDICINAL AND AROMATIC PLANTS  
IN GENERATING OF NEW VALUES  
IN 21<sup>st</sup> CENTURY"**

Sarajevo, 9-12 November, 2011

---

---

Book of Abstracts

*Editor in Chief*  
Sulejman Redžić

**SARAJEVO 2011**



ACADEMY OF SCIENCES AND ARTS  
OF BOSNIA AND HERZEGOVINA  
Department of Natural and  
Mathematical Sciences



Medicinal and  
Aromatic Plants  
Sarajevo



## International Conference

Medicinal and Aromatic  
Plants in Generating of New Values  
in 21<sup>st</sup> Century



November 9-12<sup>th</sup>, 2011 Sarajevo, Bosnia and Herzegovina  
Congress Center, Hotel HOLLYWOOD, Ilidža - Sarajevo



SL.H.03.

## RESPONSE OF SAFFRON TO PLANTING DISTANCES AND IRRIGATION TIMES

Parviz REZVANI-MOGHADDAM<sup>1</sup>, Ali Asghar MOHAMMAD-ABADI<sup>1</sup>,  
Jabbar FALLAHI<sup>1</sup>, Mahsa AGHHAVANI-SHAJARI<sup>1</sup>

<sup>1</sup> *Department of Agronomy, Faculty of Agriculture, Ferdowsi University, Mashhad, Iran*  
*Corresponding author: agroecology86@yahoo.com*

Saffron as a spicy and medicinal plant has more than of 62,000 ha cultivation area, with about 210 ton annual production, in Iran [3,4]. Improvement of agronomical methods in saffron production has an important role in increasing yeild of this plant [4]. Therefore, the aim of this study was to evaluate the effects of planting distances and irrigation management on yield and growth of saffron. This experiment was conducted in organic farm of Ferdowsi University of Mashhad, Iran, as a factorial experiment based on Randomized Complete Block Design with three replications, in 2008, 2009 and 2010. First studied factor was planting pattern of saffron (planting distances of 20\*5, 20\*10, 20\*15 and 20\*20 cm) and the second one was irrigation management (first irrigation performed in the beginning of September, the beginning of October and early November). Results of combination analysis showed that flower yield was 5.2, 238 and 262 kg/ha in 2008, 2009 and 2010 respectively and these values for fresh stigma yield were 0.2, 17 and 30 kg/ha, respectively. Effects of first irrigation time was not significant, however irrigation at early november was more effective. The results of mean comparison showed that the highest amounts of flower and stigma yield were obtained in pattern 10\*20 cm, and this subject is because of the maximum amounts of diameter, weight and bud number in corms of this treatment. The highest value of total weight of corms was observed in pattern 5\*20 cm, that the remarkable amount of this was belonged to their scales. It seems that increasing of competition between corms, were caused increasing of scale weight, in this planting pattern [4]. Respect of this observations, and other investigations it seems that the size and weight of corms had more important role than number of corms in final yield [4]. Overall, the best conditions for growthing and yield of saffron was in 20\*10 cm, these results are corresponding to other researches [1,2,4].

**Keywords:** *Crocus sativus*, Medicinal plants, flower yield, stigma yield

### Refrences:

- 1- Alavi, H. et al. (1994) 2nd National Seminar on Saffron and Cultivation of Medicinal Plants. Gonabad. Iran.
- 2- Ghalavand, A., Abdollahian, M. (1994) 2nd National Seminar on Saffron and Cultivation of Medicinal Plants. Gonabad. Iran.
- 3- Hassan-Beygi, S. R. et al. (2010) *Sci. Hort.* 124: 109–115.
- 4- Mohammad-Abadi, A. A. et al. (2011) *J. Agroeco.* In press.