



2<sup>nd</sup> National Congress on Medicinal Plants  
15, 16 May 2013  
Tehran- Iran



**EFFECT DROUGHT STRESS AND BIOSTIMULATORS ON  
MORPHOLOGICAL TRAITS OF FENUGREEK  
(*TRIGONELLA FOENUM-GRACUM* L.).**

**Masoumeh Mohammadi<sup>1,\*</sup>, Heshmat Omidi<sup>1</sup>, Ali Mehrafarin<sup>2</sup>, HasanAliNaghdi Badi<sup>2</sup>**

<sup>1</sup> Department of Agronomy and plantBreeding, Agricultural College, Shahed University,  
Tehran, Iran

<sup>2</sup>Department of Cultivation and Development, Institute of Medicinal Plants, ACECR, Karaj,  
Iran

E-mail: Mohammadi\_ae@yahoo.com

To investigate the effects of drought stress and chemical fertilizer and biostimulators on yield and some quantitative characteristics of *Trigonella foenum-gracum*, a factorial experiment was conducted on the basis of completely randomized blocks design with three replicates in Department of Cultivation and Development, Institute of Medicinal Plants, ACECR in Karaj, Iran in 2011. Treatment included drought stress with levels non stress (40%FC) , average stress (55%FC) and severe stress (70%FC) and fertilizer with levels control(A), aminoforte(B), Fosnutren(C), kadostim(D), humiforte(E), humiforte+50% (NPK)(F), humiforte+100% (NPK)(G). Results showed that effect of fertilizer ×drought stress was significant ( $P < 0.01$ ) on all of parameters of plant height, leaf length, leaf width, leaf fresh weight, Stem fresh weight, leaf dry weight, Stem dry weight. So that was the most plant height, leaf width, leaf fresh weight, Stem fresh weight, Stem dry weight related to the combination treatment humiforte+100% (NPK) +severe stress and most leaf length related to the combination treatment humiforte+100% (NPK)+ non stress and most leaf dry weight related to the combination treatment Fosnutren + non stress.