2nd National Congress on Medicinal Plants
15, 16 May 2013
Tehran- Iran

THE EFFECTS OF BIOLOGICAL FERTILIZER AND INTERCROPPING ON SOME QUANTITY AND QUALITY CHARACTERISTICS OF FENNEL (*FOENICULUM VULGARE* L.)

Mina Agha Baba Dastjerdi[1,*], Majid Amini Dehaghi[1], Mohammad Reza Chaichi, Mohammad Hossein Fotokian, Zeinab bossaghzadeh[1]

[1] *Agriculture Department, Shahed university, Tehran, Iran*
E-mail: minadastjerdi@yahoo.com

In order to evaluate the effect of biofertilizer on fennel (*Foeniculum vulgare* L.), alfalfa (*Medicago sativa* L.) and different intercropping, an experiment was conducted at College of Agriculture, Shahed University, Tehran, Iran, in year 2011. The experiment design was split plot in the base of randomized complete blocks with six treatments and three replications. The experimental treatments included fertilizer (control: no fertilizer and biofertilizer: *Azospirillum/Azotobacter,* bio phospherous), and intercropping (fennel (100%), 100% alfalfa + 50% fennel, 100% alfalfa + 100% fennel). Results showed that the maximum amounts of fennel height, number of node, dry weight and essential oil yield were obtained by applying biofertilizer. Maximum dry weight and essential oil yield and highest fennel height were observed in fennel and 100% alfalfa + 100% fennel treatments, respectively. Interactions of two treatments of biofertilizer and intercropping were significant. Also, Results showed that the maximum dry weight and essential oil yield was obtained from biofertilizer and fennel treatments.