



Tropentag, September 17-19, 2014, Prague, Czech Republic

“Bridging the gap between increasing knowledge and decreasing resources”

The Potential for Organic Production of Savory (*Satureja hortensis*) in Iran

MOIEN NAIEJI, MOHAMMAD KAZEM SOURI

Tarbiat Modares University, Dept. of Horticulture Sciences, Iran

Abstract

Savory knows a high demand on local markets of Iran, as fresh vegetable or as a valuable medicinal plant. The genotypes used are mainly local genotypes. Improvement of savory quality such as fresh life and less browning is of interest, particularly for fresh consumption. It seems that similar to any other agronomic crops, its yield and quality is improved by application of chemical or organic fertilisers. The current study was done under greenhouse conditions to evaluate the effect of organic and biological fertilisers on some morphologic and physiologic traits in savory during 2013. Treatments were control (without fertiliser application), NPK fertiliser, vermicompost at 20 and 40 % of pot volume, manure at 20 and 40 % of pot volume, and phosphate biofertiliser (Barvar 2). The results showed that plant height, leaf area, number of leaves, fresh weight, stem diameter, P and N concentration in shoots were significantly influenced by treatments, but shoot dry weight and K concentration was not affected. The highest plant height, leaf number, leaf area, fresh and dry weight and N concentration was found for the vermicompost 20 % treatment. Further, the highest stem diameter was found with the application of manure 20 %, the highest chlorophyll index and P concentration with biophosphate, and the highest K concentration with vermicompost 40 %. The results revealed that savory seed germination and early establishment is very sensitive to application of chemical and organic fertilisers, resulting in damping off and die back of most of seedlings. This indicate that savory is a good candidate for organic production in Iran using biofertilisers.

Keywords: Biophosphate, fresh and dry weight, manure, NPK, savory, vermicompost