

## Abstract

To improve quantitative and qualitative characteristics of quality, especially in the case of plants with medicinal plants the evaluation of nutritional different systems is necessary. Therefore, the effect of manure and mycorrhizal species on quantitative and qualitative characteristics Bitter melon split plot experiment based on randomized complete block design with three replications in Zabol University in the crop season of 2013-2014 was done. The experiment consisted of three levels of manure include: no application (control), 20 and 30 tons per hectare in the main plots and mycorrhizal inoculum in subplots: control (no use of mycorrhiza), three species *Glomouss mosea*, *Glomoss hoi*, *Glomoss intraradicis* and combines three species was listed. The results showed that the use of manure quantitative characters number of branches, number of fruits per plant, fruit diameter, seed weight, dry weight, fruit and fruit yield and quality traits, chlorophyll index, carotenoids, nitrogen, protein and potassium were affected and were significant at the 1% level. Based on the the highest yield of fruit from the use of 30 tons of manure produced, with 57 results obtained percent of the control group. Mycorrhiza species had different effects the different characteristics, number of seeds per fruit, chlorophyll a and b, calcium, iron, manganese and Carantin active ingredient in inoculation with mycorrhizal species were highly significant. *Glomus hoi* species the greatest impact to increase Carantin the active ingredient to non-inoculated with mycorrhiza that increased 44 percent. Manure and mycorrhizal interaction of active substances and phosphorus and ash percentage was significant interaction highest percentage of phosphorus were obtained from manure and 30 ton and *Glomouss mosea* that increased percent phosphorus in the fruit 55/26 per cent. In general the use of manure 30 ton per hectare and with species of mycorrhizal inoculation *Glomouss mosea* and *Glomoss intraradicis* had greatest impact on the Bitter melon qualitative and quantitative characteristics.

Keywords: mycorrhizal of fungi, Bitter melon, Carantin, yield, manure, mineral elements.



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The Thesis Submitted for the Degree of Master of Science  
in the field of Horticulture science- Medicinal plants

**Effects of mycorrhizae species qualitative and  
quantitative characteristics of Bitter melon  
(*Momordica charantia*) under different levels of  
farmyard manure**

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Jun 2015