

Effect of different training systems on growth, yield and fruit quality of greenhouse cucumber (*Cucumis sativus* cv. Gohar)

S. Shirahmadi^{1*}, T. Barzegar¹ and Z. Ghahremani¹

(Received: 17 Mar. 2015 ; Accepted : 13 Aug 2015)

Abstract

In order to evaluate the effect of different training systems on growth, yield and fruit quality of greenhouse cucumber (*Cucumis sativus* cv. Gohar) this experiment was set out in a randomized complete block design with three replications. Treatments consisted of four training systems including twin-stem system (V-shape), modified twin-system, high-wire system and horizontal system (single-stem). Results showed that the highest height vine, number of nodes and leaf area were observed in high-wire and horizontal systems. But, different treatments had no significant effect on internode length. The shortest time from flowering to harvesting (14 days) was obtained in V-system. Effects of the training systems on number of fruits and marketable yield per plant in different months were evaluated. The highest number of fruits (25.73) and marketable yield (2626 gr/plant) was observed in high-wire system in April. The highest non-marketable fruit was obtained in modified-twin system. Fruits of high-wire system had the highest length (17.23 cm). Effect of different training systems on dry weight of fruits and chlorophyll content of fruit skin was not significant. Fruits harvested in V-shape system had the highest total soluble solids and potassium content. According to the results and also the importance of yield in greenhouse culture, high-wire system is recommended for low-light intensity conditions and V-shape system for high-light intensity.

Keywords: Training system, Marketable yield, fruit quality.

1. Dept. of Hort. Sci., Faculty of Agric., Univ. of Zanjan, Zanjan, Iran.

* Corresponding Author, Email: sshirahmadi@znu.ac.ir