

## Effect of pruning and cultivar on growth, yield and fruit quality of greenhouse cucumber under Ahvaz conditions

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### Abstract

In order to investigate the effect of pruning and cultivar on growth, yield and fruit quality of greenhouse cucumber, a factorial experiment, based on completely randomized blocks design with three replications, was conducted. Treatments were three types of pruning (removing side branches, one node was maintained on the branch, and two nodes were maintained on the branch) and two cultivars of greenhouse cucumber (Rz225 and Karim). Results showed that cultivar had significant effect on number of leaves per plant. Vegetative-growth characteristics of the cultivars were significantly different. Maximum and minimum fresh and dry weights of root, stem and leaf were observed in Karim and Rz225 cultivars, respectively. Pruning significantly affected the number of female flowers. Maximum and minimum number of female flowers were in two-nodes maintained on the branch treatment (37 flowers) and removing side branches treatment (29.3 flowers), respectively. The highest yield was related to the Rz225 cultivar (3301 g) and the lowest yield belonged to Karim cultivar (2815 g). But pruning did not significantly affect the plant yield. Number of aborted flowers was affected by pruning. Maximum and minimum number of aborted flowers were observed in two-nodes maintained on the branch treatment (24.6 flowers) and removing side branches treatment (6.6 flowers), respectively. Soluble solids content was affected by pruning. Maximum and minimum soluble solids content were observed in Rz225 cultivar and removing side branches treatment, and Karim cultivar and two-nodes maintained on the branch treatment, respectively, which were significantly different. In general, Rz225 cultivar and one-node maintained on the branch treatment is recommendable to enhance the yield of greenhouse cucumber.

**Keywords:** Leaf Area, Side branch, Yield, Female flower.

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