

**Effects of Silica Fertilizer on Growth and Yield of Some Cucumber Varieties
(*Cucumis sativus* L.) on Salinity Stress**

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ABSTRACT

The application of Silicon and the use of varieties that are adaptive to salinity stress are indispensable to improve cucumber production. The study aims to examine the interaction of cucumber plant varieties with silica fertilizer concentration on the growth and yield of cucumber plants crushed by salinity. The study was prepared in a Complete Randomized Design with 2 factors and 3 replicates + 1 control. The first factor is the Monas F1, Metavy, and Hercules varieties. The second factor was silica fertilizer concentrations of 0 mg/L, 50 mg/L, 100 mg/L and 150 mg/L. Data were analyzed using analysis of variance, orthogonal contrast, and continued with a 5% DMRT test. The results showed that the combination of cucumber variety treatment and silica fertilizer concentration was better than the control of variable plant height, number of leaves, chlorophyll content, and total fruit weight per plant. There was an interaction of Metavy varieties and silica fertilizer concentrations of 100 mg/L on the weight variable per fruit. The Metavy variety gives the best results on the variable plant height and number of leaves. The Monas F1 variety gave the best results in the variables of total fruit count and fruit length aged 42, 45, and 48 DAP. The concentration of silica fertilizer 100 mg/L gave the best results in the variables of plant height of 28 DAP, number of leaves, chlorophyll level, fruit length of 48 DAP, total number of fruits, fruit weight per plant of 39 DAP, 42 DAP, and total.

Keywords: *salinity, cucumber varieties, silica fertilizer*