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Effect of Methyl Jasmonate and Silicon on Yield of Tomato (*Solanum lycopersicum* L.) cv. 'Dafnis' under Salinity Stress in Greenhouse Conditions

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In order to investigate the interaction of Methyl Jasmonate (MeJA)and silicon on the yield and its components in tomato plant 'Dafnis' cultivar under salinity stress, an experiment as split-plot design was carried out using the Randomized Complete Block design (RCB) and with 3 replications contained 4 observations. Experiment was done in pots containing 8 kg of sandy soil in a commercial greenhouse for 11 months. The main factor, irrigation water Salinity, was assessed in 3 levels with electrical conductivity (EC) of 0.4 and 6 $ds.m^{-1}$, MeJA as a sub-factor at 0.5 and 7.5 µM and silicon in the form of sodium silicate in 3 levels of 0.4 and 8 mM. The results showed that with increasing in salinity of irrigation water from 0 to 6 $ds.m^{-1}$, MeJA level from 0 to 7.5 µM and sodium silicate from 0 to 8 mM, the total yield decreased from 145.1 to 133.5, 144.2 to 136.2 and 141.3 to 136 t. ha^{-1}, respectively. The highest yield was obtained as 147.7 t. ha^{-1}, using 4 Mm sodium silicate and 7.5 µM MeJA in non-saline conditions.

Keywords: Dafnis, Methyl Jasmonate, Salinity, Sodium silicate.

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