

Impact of Irrigation Regime and Addition of a Soil Conditioner on Tomato Seedling Growth

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*A greenhouse study was conducted in 10-kg pots containing a calcareous sandy loam soil to investigate the effect of gel-forming conditioner "Aquasorb" at concentrations of 0.0%, 0.2%, 0.4%, and 0.6% (by weight) and irrigation frequency of 5 and 10 days on the growth of tomato seedlings, *Lycopersicon esculentum* cv. Pearson improved. The gel-forming conditioner was added to the top 7–10 cm of soil. Irrigation intervals had no significant effect on plant growth. Addition of 0.6% gel conditioner significantly increased the leaf area and both the fresh and dry weight of the shoot and improved relative growth rate, which was the result of increased available water to the plants. This is also indicated by the result of plant water potential, which showed that plants grown with a conditioner concentration of 0.6% had a higher water potential compared with the other treatments.*

Keywords greenhouse, soil conditioner, tomato, growth, water relation