



Effectiveness of *T. harzianum* and Humate Amendment in Soil Salinity Restoration

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Soil salinity is a major soil degradation threat, especially for the water stressed parts of the Mediterranean region, where it hinders soil fertility and thus agricultural productivity. Soil salinity management can be complex and expensive, often resorting to the use of chemical amendments thus risking soil and aquifer pollution. This study quantifies the beneficial effects of (a) a commercial strain of the beneficial fungus *Trichoderma harzianum* (TH), and (b) a commercial humate fertilizer enhancer (HFE) approved for organic farming, against soil salinization. The treatments are tested in the context of a *Solanum lycopersicum* (tomato) greenhouse simulation of the cultivation conditions typical for the semi-arid coastal Timpaki basin in south-central Crete. 20 vigorous 20-day-old *Solanum lycopersicum* L. cv Elpida seedlings are treated either with TH or HFE, using soil substrates and irrigation treatments of two degradation states. 20 additional plants serve either as controls or guard rows. All plants are transplanted into 35 L pots under greenhouse conditions. Preliminary analysis of soil salinity and crop yield indicators suggest that both treatments are beneficial for the soil-plant system, each to a different extent depending on initial soil conditions.