EFFECT OF THE NUTRIENT SOLUTION CONCENTRATION AND SUBSTANCES MIXTURE ON THE QUALITY OF TOMATO

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Abstract:
The objective of this study was to assess the quality of fruits of 'Charleston' tomato cultivated in mixture of leaves from two kinds of vermicomposts in the ratio of 65:35 (leaves:vermicomposts) and irrigated with a balanced nutrient solution with 0, 50, 75 and 100% of original strength under greenhouse and in a completely randomized design with eight replications and with arrangement in a factorial 2x4. We also included a control: Inorganic fertilized with regular fertilizer solution. The following variables were determined: pH, total soluble solids, titrable acidity, color (L*, hue, chroma), firmness, loss of weight and shelf life. The nutrient solution was found in most of the variables, except for pH, which ranged from 4.12 to 4.2. Higher values in total soluble solids (5.78 Brix), firmness (0.63 kg/cm²), minor loss of weight, better color (hue) and longer shelf life (15.62 days) were obtained with the supply of the solution 100%. Higher concentrations of this solution did not provide favorable conditions especially in the area of color and firmness and in the interaction of pH and total soluble solids. The nutrient solution was found in most of the variables, except for pH, which ranged from 4.12 to 4.2. Higher values in total soluble solids (5.78 Brix), firmness (0.63 kg/cm²), minor loss of weight, better color (hue) and longer shelf life (15.62 days) were obtained with the supply of the solution 100%. Higher concentrations of this solution did not provide favorable conditions especially in the area of color and firmness and in the interaction of pH and total soluble solids.