Evaluation of the biochemical effects of auxins on nutritional quality of tomato (*Solanum lycopersicon*), genotype JM 94/47

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Abstract

The effect of Indole-3-acetic acid (IAA), Indole-3-butyric acid (IBA) and naphthalene acetic acid (NAA) at 60, 100 and 140 mg/L was evaluated on some biochemical indices of the nutritional quality of tomato (*Solanum lycopersicon*). The parameters evaluated were crude proteins, crude fat, crude fibre, ash, dry matter, titratable acidity, total carbohydrate, total soluble solids (°Brix), pH and °Brix/Acid ratio. The results showed that all the concentrations of IAA, IBA and NAA increased the levels of crude proteins, crude fat, crude fibre, ash, titratable acidity but decreased the total carbohydrate content. A decrease in dry matter content was evident in 60 mg/L of IAA, IBA, NAA and 100 mg/L of NAA. The pH of tomato pulp decreased in treatments involving 100 mg/L of IAA and 140 mg/L of IAA and NAA respectively. The total soluble solid content and °Brix/Acid ratio were significantly higher (P < 0.05) in the 100 mg/L NAA treatment. The results indicated that the bioregulators could enhance the basic tomato nutrients of importance in human diet.