

## Effect of carbon nanotubes on tomato seedlings

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### Abstract

**Introduction:** Advances in nanotechnology have provided new materials with various applications, proof of this are the so-called carbon nanomaterials (CNMs) that have been used in various areas including agriculture. These CNMs have the characteristic that they can be easily absorbed by plant cells causing positive impacts on plant growth and development. In addition to its economic relevance, the tomato has been identified as a food of great interest due to its high content of bioactive compounds. This, like all crop plants, are subjected to various types of stress, both biotic and abiotic. Therefore, the application of nanomaterials as biostimulants is interesting as an alternative to increase the yield, quality, productivity and defense of plants.

**Materials and methods:** An experiment was established at the Antonio Narro Autonomous Agrarian University, using tomato seedlings of the "Pony" variety of Saladette type and determined growth. Doses of 0, 10, 50, 100, 250, 500 and 1000 mg L<sup>-1</sup> of carboxylated carbon nanotubes (CNTCOOH) were applied foliarly. The field experiment was carried out under a completely randomized design with six experimental units per treatment. The analysis of variance (one way) and DUNCAN mean test ( $p \leq 0.05$ ) were performed in the Infostat software version 2018.

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