

Effects of bulb dipping time in complete NPK fertilizer on qualitative and quantitative traits of tuberose (*Polianthes tuberosa* L. cv. Double)

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Abstract

To evaluate the effect of dipping time of bulb in complete NPK fertilizer on quantitative and qualitative traits of tuberose (*Polianthes tuberosa* L. cv. Double), a factorial experiment based on completely randomized design with four replications was conducted under the greenhouse conditions. The first factor was three bulb-dipping times (20, 40 and 60 min) and the second factor was four concentrations of complete NPK fertilizer (0, 3, 6 and 9 g/L). The studied traits were plant height, length of inflorescence, length and diameter of first floret, number of florets, leaf length and width, number of leaves and flowering stem diameter. Results showed that the highest values of the length of flowering stem (72.06 cm), the first floret diameter (4.28 cm) and number of florets (29.14) were obtained from 60 minutes dipping. Also, highest values of the length of flowering stem (73.58 cm), inflorescence height (27.91 cm) and diameter of the first floret (4.34 cm) were obtained from 3 g/L of complete NPK fertilizer treatment. The interaction effects showed that maximum length of inflorescence (29.25 cm) and diameter of the first floret (5.02 cm) were obtained from 40 minutes dipping and application of 3 g/L NPK. Results of this study revealed that dipping of tuberose bulbs (before planting) in a solution of complete NPK fertilizer significantly improved the quantitative and qualitative traits of tuberose.

Keywords: Tuberose, Dipping time, Quantitative traits, Qualitative traits, Fertilization.

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