

**Research Article****Effect of foliar application of secondary and micro nutrients on yield and quality of tomato****■ T.S. PUNITH RAJ, M.S. NAGARAJA, PRABHUDEV DHUMGOND, SHARANBHOOPAL REDDY AND K.M. SHIVAKUMAR**

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**MEMBERS OF RESEARCH FORUM :****Corresponding author :****T.S. PUNITH RAJ**, Department of Soil Science and Agricultural Chemistry, University of Agricultural Sciences G.K.V.K., BENGALURU (KARNATAKA) INDIA  
Email: punithraj9291@gmail.com**Co-authors :****PRABHUDEV DHUMGOND AND SHARANBHOOPAL REDDY**, Department of Soil Science and Agricultural Chemistry, University of Agricultural Sciences, G.K.V.K., BENGALURU (KARNATAKA) INDIA**M.S. NAGARAJA**, Department of Soil Science and Agricultural Chemistry, University of Horticultural Sciences, BAGALKOT (KARNATAKA) INDIA**K.M. SHIVAKUMAR**, Department of Soil Science and Agricultural Chemistry, Horticultural College, SIRASI (KARNATAKA) INDIA**Summary**

A field experiment was conducted during *Rabi* 2010-11 in the Hassan district of Karnataka with the objective to study the influence of foliar application of secondary and micro nutrients on yield and quality of tomato. Tomato was grown in plots of 6×3 m<sup>2</sup> size with nine different treatments in RCBD layout with 3 replications in a red sandy loam soil with slight alkaline pH. The foliar nutrition and soil amendment applications along with NPK fertilizers increased fruit weight significantly. Treatments receiving major nutrients and foliar sprays of secondary and micronutrients (T<sub>2</sub> - 2.34 kg plant<sup>-1</sup> and T<sub>6</sub> - 2.89 kg plant<sup>-1</sup>) recorded slightly higher yield compared to T<sub>1</sub> (2.22 kg plant<sup>-1</sup>) and T<sub>5</sub> (2.30 kg plant<sup>-1</sup>). Treatment combinations of major nutrients, foliar sprays and soil amendment recorded the highest number of flowers and fruits in both UAS package and IIHR technology treatments. The shelf life of tomato increased with foliar spray and amendment applications (12-16 days) compared to major nutrients alone (9-11 days). The fruits from plots receiving all the three combinations recorded significantly higher TSS, acidity and ascorbic acid content. The quality parameters like TSS, ascorbic acid and acidity of tomato fruits in UAS package received plots was of the order T<sub>4</sub> > T<sub>3</sub> > T<sub>2</sub> > T<sub>1</sub>. The trend remained similar with IIHR technology (T<sub>8</sub> > T<sub>7</sub> > T<sub>6</sub> > T<sub>5</sub>). The plots receiving nutrients as per farmers practice produced lesser number of flowers and fruits. The fruit size and the yield was also lesser. Many of growth and yield parameters were found at par with T<sub>1</sub> and T<sub>5</sub> treatments. It was observed from the current study that the IIHR based treatments with foliar application of secondary and micronutrients and splits of N and K was better for increasing productivity.

**Key words :** Foliar nutrition, Yield, Quality, Tomato**How to cite this article :** Raj, Punith T.S., Nagaraja, M.S., Dhumgond, Prabhudev, Reddy, Sharanbhoopal and Shivakumar, K.M. (2012). Effect of foliar application of secondary and micro nutrients on yield and quality of tomato. *Asian J. Soil Sci.*, 7(2): 194-199.