Standardization of micronutrients ranges in mango (*Mangifera indica* L.) by orchard surveys

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ABSTRACT

The present investigation was carried out in mango orchards located in Himachal during 2004 and 2005. The studies were undertaken with the objectives to find out the micronutrient element status of mango orchards to establish nutrient norms based on orchard surveys. The survey was carried out on Dashehari cultivar of mango of 15 years age group. Four districts of Himachal Pradesh viz., Kangra, Una, Hamirpur and Bilaspur were selected for the studies. Twenty representative orchards were selected throughout the state. Optimum sample size of 20 trees from each orchard of high productive category (>90 kg/tree) were selected randomly on the basis of apparent performance and the past history of the trees. Leaf samples were analyzed for micronutrient contents (Fe, Cu, Zn and Mn). Soil chemical characteristics were also assessed. Leaf micronutrient content varied from 176.5-192.0 ppm Iron (Fe), 13.5-26.2 ppm Copper (Cu), 27.5-38.8 ppm Zinc (Zn) and 68.3-79.7 ppm Manganese (Mn). For balanced fertilization and sustainable production of Dashehari orchards under agro-climatic conditions of Himachal Pradesh, the micro-nutrient standards viz., 177.1-191.2 ppm Fe, 13.8-26.0 ppm Cu, 28.0-38.5 ppm Zn and 68.9-79.1 ppm Mn, were developed.

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