

ABSTRACT

The study was undertaken to investigate the effect of foliar application of different micronutrients (B, Zn & Fe; 0.5%, 1.5% and 1%, respectively) on plant growth and flowering of three rose (*Rosa hybrida* L.) cultivars viz. Kardinal, Amalia and Rosy Cheeks. Nutrients were applied alone and with different combinations after 6, 8 and 10 weeks of pruning. Plant height, number of leaves branch⁻¹, leaf area, number of flowers plant⁻¹, flower stalk length and leaf Zn contents were maximum with B + Zn application followed by only B application which also resulted early flower production as compared to rest of the treatments while bud diameter, flower diameter, as well as fresh & dry weight of flowers were maximum with B application alone followed by combination of B + Zn application. Leaf chlorophyll contents, Flower quality, flower stalk diameter and Leaf B & Fe contents were highest when plants were sprayed with combination of all micronutrients. Plants without micronutrients application produced poor quality vegetative growth and less number of flowers. Regarding cultivars, Rosy Cheeks responded well to micronutrients as compared to Amalia and Kardinal. It is concluded that application of micronutrients could help better to improve flower yield and quality of roses.

Keywords: Rose, boron, zinc, iron, nutrition, flowering