A study to identify nutritional status (N,P,K and Mg) of citrus orchards in east of Mazandaran

S. A.Assadi Kangarshahi and M. Mahmoodi

Faculty Members of Mazandaran Agriculture Research Center.

Citrus fruits are tropical and subtropical fruits that have important role on the human's health. About 228,000 hectares of the total orchards area in Iran are allocated to citrus cultivation. The average yield is 16.7 tons ha^{-1} in Iran , that is lower than global average and application of balanced fertilizers, more than any other parameters, can be effective in increasing this average yield. Leaf testing is the best way for balanced fertitizer recommendation, So, leaf complete samples were collected from 146 citrus orchards. The results of leaf testing indicated that N was less than 2.2% in 7% of orchards (deficiency), between 2.2 - 2.5 in 40% (low of optimum) and more than 2.5 percent on leaf dry matter in 33% of orchards. P concentration in leaf dry matter was less than 0.1 (deficiency) in 1% of orchards, 30% between 0.10- 0.12 (low) in 30%, between 0.10 - 0.15 in 40% and more than 0.15 percent in 29% of orchards. Concentration of K in leaf dry matter was less than 1.2 in 12% orchards (deficieny), between 1.2-1.6 (low) in 31%, between 1.6-2 in 16% and more than 2 percent in 41%. 37% orchards had leaf Mg less than 0.30 (deficiency), 48% between 0.30 - 0.40 (low of optimum), 9% between 0.40 - 0.50 and only 6% more than o.50 on leaf dry matter. So, it could be said that the amount of Mg in about 85% of orchards is low of optimum than the main limiting factor product and next to Mg, N and K are limited in orchards, respectively.