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Nutritional status in commercial currant fields

Keywords black currants, leaf analysis, macro-and micronutrients, red currants, *Ribes nigrum*, *Ribes x pallidum*, soil pH, soil testing,

Abstract

The nutritional status on commercial currant fields was elucidated by advisory analytical data of 357 pairs of soil and leaf samples from commercial black, red and white currant fields in Southern and Middle Finland. The purpose was to investigate how nutrient concentrations in soil and leaves fitted in the recommended ranges, correlated with each other and to evaluate their usefulness in diagnosis of nutrient status. Soil pH(H₂O) and extractable nutrients (NO₃-N, P, K, Ca, Mg, B, Cu, Mn) and leaf nutrients (N, P, K, Ca, Mg, B) were analysed. Mean soil pH, P, K and Mn were in the recommended ranges. Over 50% of soil P and 60% of Mg results and the greatest part of Ca were below the lower recommended limits, but soil B and Cu were frequently over the upper recommended limits. The mean leaf N, P and K on black and red currants, Mg on black and red currants and Ca and B on black currant were within the recommended limits. The lower recommended limits were passed below in 74% of white currant leaf samples. Positive correlations were found between soil and leaf nutrient concentrations of N and Mg. The recommended lower soil analysis limits might possibly be too high for coarse soils, because low values of soil P, N and K are common. The nutrients also might not be evenly distributed in the sampled soil layer but might be accumulated in a thin surface layer because of repeated surface broadcasting of fertilizers.

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