Abstract

In the Amazon region, there is no information on the fertilization of banana plants with boron (B). Besides this, the extractant (hot water) currently used to test B concentrations has many limitations. The aim of this work was to study the effect of B on the fruit yield and quality of banana plants of the Cavendish (AAA) sub-group, grown in dystrophic Yellow Latosol (Oxisol or Xanthic Ferralsol), in the Amazonas State, Brazil. The experimental design was completely randomized split plot in a 4 x 2 factorial scheme, composed of four B rates (0, 4, 8 and 12 kg ha⁻¹) and two harvest cycles (sub-treatments), with four replicates. The B availability in the soil was determined by three extractants: Mehlich 3, hot water and KCl 1.0 mol L⁻¹. The application of B influences the fruit yield, pulp/peel ratio, pulp resistance and B content in the leaves and fruits. The KCl 1.0 mol L⁻¹ extractant was similar to the hot water in the evaluation of available B. To obtain maximum yield, it is necessary to apply 4.1 and 6.1 kg ha⁻¹ of B in the first and second cycles, respectively.

Keywords

Musa spp., yield, methods of soil analysis, post-harvest.