Agronomic response estimates of acidulated and uncidulated phosphorus sources for tea (camellia spp l.) growing in Kenya

Abstract:

Studies were conducted on two tea fields, one with tea bushes planted in 1957 and another with tea bushes planted n LgTg in Kaaga, Kenya to determine the response of green tea leaf production to acidulated (Tripleiuper phosphate) and unacidulated (Minjingu phosphate rock) phosphorus fertilisers in the 1993194 af,d lg%lg1 Cropping seasons. The soils yere fairly acidic, low in exchangeable Ca and Mg and high in exchangeable ,ciaty and Al. Al saturation was high (> 480 g kg-') in both soils. In both tgg3tg4 and 1994195 cropping seasons significantly (P 50.001) higher tea yields were obtained in the field with tea bushes planted in 19?9. The yield for 1994195 cropping season was significantly (P S0.m1) higher. than that for the 1993194 cropping season. There were no significant differences between the two P sources and also that of the control. The higher yields observed in the field with tea planted n lg/g was attributed to the high yielding varieties (clones) which had been planted. Higher yields observed in the 1994195 cropping season were due to improved management practices compared to that of the previous year. The lack of significant response of the crop to either of the P sources was attributed to the 'Al complexation' tolerance mechanism whereby the plant is still able to absorb Ca and P.