Abstract:

Two field experiments were conducted at two different sites for one season (1992/93) in order to study the effects of iron, manganese, zinc and their combinations on growth and yield of sugarcane at Kenana Sugar Scheme. The experimental design used was a randomized complete block with four replications. Sulfates of iron, manganese and zinc were used as foliar fertilizers at concentrations of 200 ppm for iron and zinc and 100 ppm for manganese. Half of the fertilizer dose was applied when the crop was four months old, and the other half was applied when the crop was six months old, and the control was sprayed with distilled water only. All the treatments received 415 kg/ha urea fertilizer (46% nitrogen) as nitrogen source and 108 kg/ha triple superphosphate (48% P2O5) as a source of phosphorus. Data were recorded on the growth and yield of sugarcane crop. The results showed that the lowest stalk height was obtained with treatments receiving iron fertilizer. The highest stalk diameter value was obtained in plants sprayed with zinc. The application of manganese or zinc and their combinations resulted in higher values of cane yield than the control.