Abstract:

Field experiment was conducted for two consecutive seasons (1994/95 and 1995/96) in the Experimental Farm of the Faculty of Agriculture at Shambat in order to study the effects of nitrogen and phosphorus on yield of roselle (Hibiscus sabdariffa var. sabdariffa L.) under irrigation. The treatments consisted of four nitrogen levels (0, 20, 40 and 80 kg N/ha) and four phosphorus levels (0, 25, 50 and 100 kg P2O5/ha). Urea (46%N) and triplesuperphosphate (48%P2O5) were used as sources of nitrogen and phosphorus, respectively. The fertilizers were applied at sowing in bands 5 cm deep on one side of the ridge. The experiment was laid out in a randomized complete block design with four replications. The results showed that both nitrogen and phosphorus, either alone or in combination, significantly increased number and dry weight of calices/plant as well as total dry calyx yield. Moreover, the greatest effect of the nutrients in question was achieved at levels of 40 kg N/ha and 50 kg P2O5/ha, which could be considered as optimum for roselle under the conditions of this study.