

Abstract

Two experiments were set up to evaluate the effect of planting systems on the growth and yield of Bambara nuts (*Vigna subterranea* L. Verdec) intercropped with maize. Three intercropping planting systems were used: monocropped Bambara nuts, intercropped Bambara nuts with maize and monocropped maize. The objective of the study was to determine grain and pod yield for intercrop. Bambara nuts were planted in 1:1 alternate rows of maize and at various population densities/spacing. The spacings for Bambara nuts were varied at 45, 35, 30, 25 and 15 cm giving population densities of 76190, 95235, 114285, 133333 and 222222 plant ha⁻¹, respectively, while spacing for maize was constant at 30 x 75 cm at the population density of 45714 plants/ha for all plots. Bambara nut landrace KK204 developed at Kenya Agricultural and Livestock Research Organisation (KALRO), Kakamega was used for the study. A medium maturing maize variety Hybrid H513 was sown at the constant intra- and inter-row spacing of 30 x 75 cm. The experiment was replicated three (3) times and planted for three (3) seasons. Data was collected at 25, 40, 86 and 95 days after sowing (DAS). Number of pods per plant, weight of pods per plant and grain yield were determined. Data analysis was done by SAS. The number of pods per plant, weight of pods per plant and grain yield of Bambara nuts intercropped with maize was depressed throughout the study because of an attack by leaf blight.