

Varietal influences of organically grown Cowpea at different spacing on weed abundance, growth and yield

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Abstract: Weed control becomes a different task in organic farming as many weed seeds are carried with materials used as organic manures. This study aimed to evaluate the effect of three different inter row spacing of three different recommended varieties of cowpea (*Vigna unguiculata*) on weed abundance (weed population, types and bio mass), growth and yield parameters of cowpea. The experiment was done in randomized complete block design with three replicates. Types of weeds, number of weeds, biomass of weeds, and growth and yield parameters of cowpea was recorded. Appropriate statistical analyses were performed using SAS statistical packages at $\alpha=0.05$. The results showed that the weed biomass and population of the weed communities significantly increased with reduction of inter row spacing. Though the growth parameters of cowpea significantly differed among the varieties the total grain yield of cowpea were not significantly differed among the tested varieties. Bombay variety which planted at spacing 22.5 cm \times 15 cm recorded lowest weed abundance with highest grain yield. Therefore the farmers can be advised to grow Bombay cowpea at narrow spacing to reduce weeds and to obtain highest yield under organic farming.