

## **Bio-efficacy of Selected Plant extracts and Cypermethrin on Growth and Yield of Cowpea (*Vigna unguiculata* L.).**

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**Abstract :** This experiment was conducted in Igboora, southwest Nigeria during the year 2022 planting season to determine the bio-efficacy of plant extracts (*Jatropha curcas* and *Petiveria alliacea*) and synthetic (Cypermethrin) insecticides against the insect pest of cowpea (*Vigna unguiculata* L.) and to determine its effect on the growth and yield of cowpea in the study area. Cowpea is one of the most important food and forage legumes in the semi-arid tropics. It is grown in 45 countries worldwide, including parts of Africa, Asia, Southern Europe, the Southern United States, and Central and South America. Cowpea production is considered too risky an enterprise by many growers because of its numerous pest problems. The treatments for the experiment consisted of two aqueous plant extracts (*J.curcas* and *P. alliacea*) at 50 /0 w/v and Cypermethrin 400 EC replicated three times including control in a randomized complete block design. Each plot measured 2.0 m by 2.0 m with 1.0 m inter-spaced per adjacent plot. The results from the study showed that different insect pests attack cowpea at different stages of growth. The insects observed were *Bemisa tabaci*, *Callosobruchus maculatus*, *Megalurothrips sjostedti*, and *Maruca vitrata*. High yields were obtained from plots treated with *P. alliacea* and synthetic insecticide (cypermethrin). *J. curcas* also produced optimum yield but lower than *P. alliacea* also *P. alliacea* treated plots had the least damaged pods while the untreated plots had the highest damaged pods, the plants extracts exhibited high insecticidal activities in this study, therefore *P. alliacea* leaves formulated as an insecticide is recommended for the control of insect pests of cowpea in the study area.

**Keywords :** plant extracts, yield, cypermethrin., cowpea

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