

PERFORMANCE OF FIVE VARIETIES OF COWPEA (*VIGNA UNGUICULATA* L.WALP) AS AFFECTED BY THE APPLICATION OF PHOSPHORUS FERTILIZER AT YOLA, NORTHEASTERN NIGERIA

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ABSTRACT

*A factorial experiment was conducted to evaluate the influence of phosphorus fertilizer at four different levels on growth, nodulation and yield of five cowpea varieties:-Sampea 6, Sampea 10, Sampea 11, Sampea 12 and Kanannado, comprised of 20 treatment combinations laid out under split-plot design and replicated three times with a view to selecting cowpea (*Vigna unguiculata* L. Walp) varieties that can produce good yield under low soil phosphorus level. Soil samples were collected from the experiment site and routinely analyzed before the experiment. Plant parameters studied included the number of leaves, vine length, number of branches, nodule count, haulm grain, total dry matter yield, N, P and K contents of haulm and grains. Results obtained from recorded and statistically analyzed data revealed that no significant effect of P fertilizer application at all levels on cowpea growth and yield. It is therefore recommended that there is no need to apply N and K to cowpea planted in the same fertility status fields as in the present experimental site. Further studies required to be conducted with higher phosphorus rates.*

KEYWORDS: *Cowpea, Phosphorus fertilizer, Phosphorus Level, Total Dry Matter Yield*

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