

## Impact of nitrogen and phosphorus fertilizer on growth and yield of bambara groundnut

### ABSTRACT

Bambara groundnut (*Vigna subterranea*) is an indigenous African crop which belongs to the family fabacea and sub-family of faboidea. It seeds contain 63% carbohydrate, 19% protein and 6.5% oil and good source of fibre, calcium, iron and potassium. Hence, this study aimed to determine the effect of nitrogen (N) and phosphorus (P) on growth and yield bambara groundnut. A pot experiments was conducted in ladang 15 at the Faculty of Agriculture; Universiti Putra Malaysia. The experiment was performed Randomized Complete Block Design (RCBD). The size of the pot was 65.94 cm<sup>2</sup>. The experiment was conducted in a factorial design with four levels of N (0, 10, 20, 30 kg/ha) and P (0, 20, 40 and 60 kg/ha). In this study, N and P fertilizer was played dominating role for vegetative growth of the plant. Plant height (20.65 cm), leaves number (262), leaf area (2140.54 cm<sup>2</sup>), number of pod (47.25) and pod weight (22.8 g) increased with the application of level of N and P. Vegetative growth and yield of the plant was better at N30P60 kg/ha than the all other treatments. It can be concluded that by using N30P60 kg/ha growth and yield of bambara groundnut is maximum.

**Keyword:** Bambara groundnut; Nitrogen; Phosphorus; Growth; Yield