

**NITROGEN AND POTASSIUM FERTILIZER
RESPONSE ON GROWTH AND YIELD OF HYBRID
LUFFA (*Luffa acutangula*)-NAGA F1 VARIETY**

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ABSTRACT

Unavailability of fertilizer recommendations for hybrid vegetables leads to an excess fertilizer application causing a vital environmental issue that creates undesirable impacts on nature and the human health. Intension of this research was to determine the nitrogen and potassium fertilizer response on growth and yield of hybrid Luffa variety-Naga F1. The study was carried out in a randomized complete block design. Hybrid Luffa- Naga F1 variety seeds were used as materials. Nine different treatments were applied combining 0%, 75% and 150% levels in both urea and muriate of potash. Evaluated parameters were leaf number per vine, length of the vine, fruit girth, fruit length, yield per ha and yield per vine. Laboratory analyses were conducted in order to determine plant uptake of nitrogen, phosphorous and potassium. Analysis of variance and Tukey mean comparison tests were performed for obtained data using Minitab 17 statistical software. According to the results the treatment which consisted of 75% urea and 75% muriate of potash, showed significantly ($P < 0.05$) highest leaf number per vine, length of the vine and fruit girth. Highest fruit length, yield per hectare and yield per vine were observed from the treatment which consisted of 150% of urea and 75% of muriate of potash. The highest fruit and leaf nitrogen uptakes were recorded from the treatment that consisted of 150% of urea and 150% of muriate of potash. Depend upon the analyzed soil condition and under recommended dosage of phosphorous application, different nitrogen and potassium fertilizer levels were influenced on growth and yield of hybrid Luffa - Naga F1 variety.

Key words - Nitrogen, Phosphorous, Potassium, Hybrid, Parameter