



Productivity of Groundnut, Fenugreek and Spinach under the influence of Nitrogen (N) and Phosphorus (P) Fertilizers.

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Abstract

The importance of Plant physiology Can be realised from the fact that knowledge of mineral nutrition of plants has opened vistas for fertilizer practices. The detection of deficiencies and toxicities of particular mineral nutrient elements have enabled us to make adequate soil amendment for better plant growth.

Keywords: Nitrogen Phosphorus, Groundnut

Introduction:

During present study experiments were undertaken with groundnut, (*Arachis hypogaea* L.), fenugreek (*Trigonella foenum-graecum* L.), Spinach (*Spinacia oleracea* L.) The crops were cultivated to observe the effect of application of nitrogen (N) and Phosphorus (P) on their growth and productivity.

Attempts were made during present study to evaluate effect of fertilizer nitrogen (N) & Phosphorus (P) applications, on growth & productivity of groundnut, fenugreek & Spinach.

Although the result with nitrogen & phosphorus were encouraging the author feels that along with Chemical fertilizer or instead of them, inorganic fertilizers should be applied to increase the yield, of vegetables for getting nutritionally desirable products without deteriorating the soil. Structure Nitrogen (N) is an important element for plant life. It's importance comes any next to carbon, its hydrogen & oxygen. Higher plants are flooded with an atmosphere consisting of 80% nitrogen, but they are in the atmosphere; and therefore, they have to be dependent for its supply on the Soil on which they grow.

Extensive literature has accumulated on the effect of fertilizer nitrogen on green & dry matter yields of various crop plants cultivated at different locations. The results obtained so far show that large biomass yield can be obtained from non-leguminous crops in tropics by applying of fertilizer nitrogen (Deshmukh et al; 1974; Gore et al, 1974; mungikar et al, 1976 a).

Materials and Methods : To evaluate the effect of nitrogen (N) along with phosphorus (P) on the growth, development, and productivity of the three crops Viz; groundnut, fenugreek & Spinach, the plants were Sown in the pots having 34 cm diameter. The Pots were filled with Soil (PH 7.9). The Seeds of groundnut. After emergence extra Seedlings were removed to maintain uniform plant population of 5 plants/pot. There were in all five treatments, each replicated for five times. The treatments were as.

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| 1) Control | - | Untreated |
| 2) Urea + P ₂ O ₅ (0.5 + 2) | - | 0.5gr. urea + 2gr.P ₂ O ₅ |
| 3) Urea + P ₂ O ₅ (1.0 + 2) | - | 1.0gr. urea + 2 P ₂ O ₅ . |
| 4) Urea + P ₂ O ₅ (1.5 + 2) | - | 1.5gr Urea + 9 P ₂ O ₅ . |

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