



Research Article

Productivity and profitability as influenced due to integrated nutrient management in summer groundnut

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Abstract : Groundnut (*Arachis hypogaea* L.) is an important oilseed and cash crop of the country. Independent use of neither the chemical fertilizers nor the organic sources can sustain the fertility of soil and productivity of crops. Sustainability of higher yields of groundnut could be achieved through conjunctive use of plant nutrients combining the organic and inorganic fertilizers. Results revealed that application of 75 per cent N through inorganic fertilizer plus 25 per cent N through vermicompost or FYM was found beneficial for achieving higher productivity and profitability of summer groundnut.

Key Words : Productivity, Profitability, Integrated nutrient management

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INTRODUCTION

In Maharashtra, the groundnut occupies a dominant position as an oilseed crop. The major groundnut growing districts are Dhule, Jalgaon, Akola, Nasik, Kolhapur, Satara, Pune, Ahmednagar and Parbhani. During 2003-04 groundnut occupied an area of 3241 lakh hectares with annual production of 3552 lakh metric tonnes with its productivity of 1096 kg ha⁻¹ in *Kharif* season (Anonymous, 2005a). During summer season, it occupied an area of 547 lakh hectares with production of 816 lakh metric tonnes and the average productivity of 1492 kg ha⁻¹ (Anonymous, 2005b). It appears from the above figures that, yields are higher during summer season and this may be due to adequate sunlight, temperature, availability of timely irrigation and fairly disease

and pest free condition. Fertilizers are the 'kingpin' in the present system of agriculture. Scientific uses of fertilizer assume vital importance in sustainable agriculture. Fertilizers pay back to the farmer more profit per unit investment. Integrated nutrient management plays an important role in boosting groundnut production. In other words this concept refers to the maintenance of soil fertility and supply of plant nutrients on desired levels for obtaining optimum or higher groundnut production through all possible sources as organic, inorganic, biotic etc. in an integrated manner. The incorporation of bulky organic manures such as farmyard manure, vermicompost etc. plays an important role in plant nutrition especially for nitrogen. The decomposition of organic matter results into formation of humus which can bring out physical, chemical changes in soil and plays an important role in maintaining soil fertility in both light and heavy textured soils. The processed urban compost is the organic manure which also gives beneficial effect on soil health and production of crop.

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EXPERIMENTAL METHODS

The field experiment was conducted during summer