

Growth And Yield of Export Oriented Groundnut as Influenced by Different Planting Pattern, Nitrogen and Weed Management Practices

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ABSTRACT

A Field experiments were conducted during two consecutive rabi seasons of 2008 and 2009 to develop certain agro- techniques for enhancing the productivity and quality of export oriented groundnut. The experiment was laid out in a split - split plot design replicated thrice. It consisted of three planting patterns viz., 22.5 x 10 cm (P_1), 30.0 x 10 cm (P_2) and 37.5 x 10 cm (P_3) as main plots, four nitrogen management practices viz., 100% N through fertiliser (N_1), 100% N through poultry manure (N_2), 50% N through fertilizer + 50% N through poultry manure (N_3) and 25% N through fertilizer + 75% N through poultry manure (N_4) as sub plots and four weed management practices viz., Two hand weedings at 20 DAS and 40 DAS (W_1), Pre-emergence application of pendimethalin @1.0 kg a.i ha⁻¹ + one hand weeding at 40 DAS (W_2), Post emergence application of Quazifop -p-ethyl @ 54 g a.i ha⁻¹ at 20 DAS + Hand weeding at 40 DAS (W_3) and Pre-emergence application of pendimethalin @ 1.0 kg a.i ha⁻¹+ post emergence application of Quazifop -p-ethyl @54 g a.i ha⁻¹ at 40 DAS (W_4) as sub-sub plots. The results revealed that bold kernelled (export oriented) groundnut cv. Bheema (TG-49) could be successfully grown in the southern agro-climatic zone of Andhra Pradesh with planting pattern of 22.5 x10 cm, supply of 30kg N ha⁻¹ @ 50 per cent each through fertiliser and poultry manure along with hand weeding twice at 20 and 40 DAS.

Key words : Groundnut, Growth, Planting pattern, Weed management, Yield.