

Influence of planting densities and phosphorus levels on light interception and quality of groundnut

T Sunil Kumar, V Sumathi, Y ReddiRamu, A R Nirmal Kumar and G Karuna Sagar
Department of Agronomy, Acharya N G Ranga Agricultural University,
S. V. Agricultural College, Tirupati, Andhra Pradesh 517 502, India

ABSTRACT

To find out the influence of different planting densities and phosphorus levels (P) on light interception and quality of groundnut, a field experiment was laid out in a randomized block design with factorial concept during *rabi*, 2019-20 under high density planting (22.5 x 10 cm - 4.44 lakh ha⁻¹; 20 x 7.5 cm - 6.66 lakh ha⁻¹; 22.5 x 5 cm - 8.88 lakh ha⁻¹ with graded levels of phosphorus (25, 37.5, 50 and 62.5 kg P₂O₅ ha⁻¹). The study disclosed that Planting density of 4.44 lakh ha⁻¹ registered higher light interception at 25 DAS and at harvest but at 50 DAS and 75 DAS 8.88 lakh ha⁻¹ recorded higher light interception. Protein and oil content was not influenced by plant densities and phosphorous levels even at higher dose of P application. Phosphorus levels did not show any-significant impact on light interception but plant densities showed significant impact on light interception.

Key words: *Groundnut, Light interception, Phosphorus, Plant density and Quality*