

Influence of Seed Rate on Productivity and Economics of Promising Groundnut Varieties (*Arachis hypogaea* L.)

B Soumya, and K B Suneetha Devi

Department of Agronomy, College of Agriculture, Rajendranagar, ANGRAU,
Hyderabad –500 030.

ABSTRACT

A field experiment was conducted on sandy loam soils during *kharif* 2010 at College farm, College of Agriculture, Rajendranagar, Acharya N.G. Ranga Agricultural University to evaluate the effect of varieties and seed rates on yield and economics of groundnut. The treatments consisted of four groundnut varieties (Narayani, ICGV 91114, K 6 and JCG 88) and four seed rates (75, 100, 125 and 150 kg ha⁻¹) laid out in Randomized Block Design with factorial concept three replications. Among the varieties, maximum pod yield of 1835 kg ha⁻¹ was obtained with Narayani followed by K 6 (1651 kg ha⁻¹) variety. With each increase in seed rate from 75 to 150 kg ha⁻¹ there was corresponding increase in pod yield. Significantly higher pod yield was obtained with a seed rate of 150 kg ha⁻¹. Interaction effect between varieties and seed rates revealed that significantly higher pod yield (2150 kg ha⁻¹) was recorded with Narayani at 150 kg ha⁻¹ and followed by 125 kg ha⁻¹ and K 6 at 150 kg ha⁻¹ which were at par. However, JCG 88 recorded higher yields with a seed rate of 125 kg ha⁻¹. The oil content was significantly influenced by varieties and JCG 88 recorded higher oil content which was at par with K 6 and Narayani varieties. Maximum gross returns (Rs.38535 ha⁻¹), net returns (Rs.25632 ha⁻¹) and benefit-cost ratio (1.98) were obtained with Narayani closely followed by K 6. Seed rate also significantly influenced the economics of groundnut. Gross returns, net returns and benefit-cost ratio increased with each increase in seed rate from 75 to 150 kg ha⁻¹. However, at the seed rate of 125 and 150 kg ha⁻¹ there were no significant difference in gross, net returns and benefit-cost ratio. Thus for attaining economic pod yield, Narayani with a seed rate of 125 kg ha⁻¹ and K 6 with a seed rate of 150 kg ha⁻¹ would be advisable for cultivation under rainfed conditions of Southern Telangana zone, Andhra Pradesh.

Key words : Economics, Oil percent, Seed rate, Varieties.