Response of Popcorn to Different Planting Patterns, Nutrient levels and Nitrogen Application

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ABSTRACT

A field experiment was conducted during two consecutive *rabi* seasons of 2008 and 2009 at S. V. Agricultural College ,Tirupati, to evaluate the effect of different planting patterns, graded nutrient levels and split application of nitrogen on growth, yield and economics of popcorn . The experiment was laid out in a split - spit plot design replicated thrice. The treatments comprised of three planting patterns *viz*., P_1(60x20 cm), P_2 (75x20 cm) and P_3 (90x20 cm) assigned to main plots and three nutrient levels *viz*., N_1 (80-40-40 kg ha^{-1} N, P_2O_5 and K_2O), N_2(100-50-50 kg ha^{-1} N, P_2O_5 and K_2O) and N_3 (120-60-60 kg ha^{-1} N, P_2O_5 and K_2O) assigned to sub plots and three times of nitrogen application *viz*., T_1 (1/3 rd basal +1/3 rd knee high stage +1/3 rd tasselling), T_2 (¼th basal + ½ knee high stage + ¼th tasselling) and T_3 (1/4 th basal + ¼ th knee high stage +1/2 tasselling) assigned to sub - sub plots. The study has revealed that best performance of popcorn with highest yield and economics could be realized with planting pattern of 90x20 cm along with application of 120-60-60 kg ha^{-1} N, P_2O_5 and K_2O in three splits at ¼th basal + ½ knee high stage + ¼th tasselling.

Key words : Popcorn , Planting pattern and Nitrogen