Effect of Crop Geometry and Levels of Nitrogen on Nutrient Uptake and Fibre Quality of Compact Cotton (*Gossypiumhirsutum* L.) under Rainfed Vertisols

B B Nayak, S Bharathi, M Sree Rekha and K Jayalalitha
Department of Agronomy, Agricultural College, Bapatla, A.P.

ABSTRACT

A field experiment was conducted on clayey soils of Regional Agricultural Research Station, Lam, Guntur during the year 2018–2019 under rainfed condition. The treatments consisted of three crop geometries S_1 - 60cm × 10cm,S_2- 75cm × 10cm, S_3- 90cm × 45cm in combination with four nitrogen levels N_1- 45kg N ha^{-1}, N_2- 90kg N ha^{-1},N_3- 135kg N ha^{-1},N_4- 180kg ha^{-1}. The experiment was laid out in a randomized block design with factorial concept replicated thrice. Nutrient uptake by plants at harvest was significantly influenced by crop geometry and nitrogen levels but their interaction was found to be non-significant. Different crop geometry and nitrogen levels under the study and their interaction effects on quality components of seed index, lint index , ginning turnout, upper half mean length (UHML), uniformity ratio, micronaire, tenacity and elongation was found to be non-significant.

Key words: *Crop geometry, Compact cotton, Fibre quality, Ginning turnout, Seed index.*