



RESEARCH PAPER

Influence of cultivation methods and crop geometries on earliness traits and yield of cotton (*Gossypium hirsutum* L.)

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Abstract : Field experiments were conducted to study the earliness traits and yield of the cotton under mechanized and conventional cultivation methods with varying crop geometry during the summer season of 2015 and 2016 on sandy clay loamy soil at the irrigated upland farm of Eastern Block, Tamil Nadu Agricultural University, Coimbatore. The experiments were laid out in split plot design and replicated thrice. The treatment comprised of two cultivation methods viz., mechanized cultivation (M₁) and conventional cultivation (M₂) were assigned in main plot and four spacings viz., 45 cm x 15 cm (1,48,148 plants/ha) (S₁), 60 cm x 15 cm (1,11,111 plants/ha) (S₂), 75 cm x 15 cm (88,888 plants/ha) (S₃) and 75 cm x 30 cm (44,444 plants/ha) (S₄) in subplot. The results of this study revealed that the earliness traits of cotton viz., the appearance of the first square, the appearance of the first flower, days to attain 50 per cent flowering, days to first boll open and boll maturation period were significantly influenced by crop geometries, whereas cultivation methods did not show any variation regarding earliness traits and the cotton cultivated under mechanized cultivation method with the spacing of 45 x 15 cm registered higher seed cotton yield.

Key Words : Cultivation method, Mechanized cultivation, Conventional cultivation, Crop geometry, Earliness traits, Seed cotton yield

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