



RESEARCH PAPER

Effect of spacing and growth regulation levels on leaf area, branches and dry matter per plant of Bt. Cotton

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Abstract : The present study aimed to evaluate the effect of spacing and growth regulation treatments on Bt. Cotton (var. “Solar 65 BG-II) during *Kharif* season of 2019-20 on clayey soils of Junagadh. The experiment comprising of four levels of spacing viz., 45 cm x 30 cm, 60 cm x 30 cm, 90 cm x 30 cm, 120 cm x 45 cm and four growth regulation levels viz., control, detopping at 75 DAS, Brassinosteroid (0.15 ppm) at 75 and 90 DAS, cycocel (40 ppm) at 75 and 90 DAS were laid out in split plot design with three replications. The result showed that higher leaf area per plant at 60, 90, 120 DAS and harvest; number of sympodial branches per plant at 60, 90, 120 DAS and harvest; dry matter per plant at 60, 90, 120 DAS and harvest; CGR during 30-60 DAS; CGR during 60-90 DAS and CGR during 90-120 DAS and CGR during 120 DAS-harvest were recorded significantly highest value with plant spacing 120 cm x 45 cm (S₄). However, spacing 45 cm x 30 cm (S₁) significantly increased the leaf area index per plant at 60, 90, 120 DAS and harvest. Application of cycocel (40 ppm) at 75 and 90 DAS enhanced leaf area per plant and leaf area index per plant at harvest; number of sympodial branches per plant at 90, 120 DAS and harvest; dry matter per plant at 90 DAS; CGR during 60-90 DAS; CGR during 120 DAS-harvest and RGR during 60-90 DAS. Application of brassinosteroid (0.15 ppm) at 75 and 90 DAS enhanced leaf area per plant and leaf area index per plant at 90 and 120 DAS; dry matter per plant at 120 DAS and harvest; CGR during 90-120 DAS and RGR during 90-120 DAS.

Key Words : Bt. Cotton, Spacing, Detopping, Brassinosteroid, Cycocel

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