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STUDIES OF GROWTH PROMOTERS ON GROWTH AND PRODUCTIVITY OF ASWAGANDHA (*WITHANIA SOMNIFERA*)

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ABSTRACT: The present investigation was conducted during rabi season. The Growth Promoters Methanol, Salicylic acid, Ascorbic acid, and Humic acid were sprayed as foliar. Results revealed that salicylic acid has increased the dry weight of root and shoot, LAI, and LAD up to 120 DAS. NAR showed an identified trend with comparatively higher magnitudes up to 75 and 90 DAS with same treatment. CGR continued to increase during crop growth up to 90DAS. RGR was also similar to CGR throughout the growth period which exhibited higher magnitudes in early growth stages. Salicylic acid influenced Root and Seed yield. The foliar spray of Ascorbic acid has increased the physiological traits viz. Net photosynthetic rate, Stomatal conductance, and Transpiration rate. Humic acid executed higher SLA during the growth period and maximum peak was found at 75 DAS. Spray of Methanol and Salicylic acid increased internal CO₂ in leaves which may be due to bio-degradation of Methanol.

Key words: *Ascorbic acid, Humic acid, Methanol, Salicylic acid, Withania Somnifera.*