

**RESEARCH ARTICLE :**

## Effect of plant growth regulators to enhance the yield contributing character of soybean [*Glycine max* (L.) merill]

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**SUMMARY :** A soybean variety Phule Agrani was evaluated for foliar sprays of Ethereal @ 150ppm (T<sub>1</sub>), Ethereal @ 200ppm (T<sub>2</sub>), SNP @ 150µM (T<sub>3</sub>), SNP @ 200µM (T<sub>4</sub>), CCC @ 500ppm (T<sub>5</sub>), CCC @ 1000 ppm (T<sub>6</sub>), FeSO<sub>4</sub> @ 0.5% (T<sub>7</sub>), FeSO<sub>4</sub> @ 0.10% (T<sub>8</sub>), Water Spray (T<sub>9</sub>) and Absolute Control (T<sub>10</sub>) in randomized block design with three replication at MPKV, Rahuri during *Kharif*, 2015. The foliar sprays of CCC @ 500 ppm and @ 1000 ppm delayed the flowering period, arrested plant height, profuse branching, and maximum leaf area and leaf area index (LAI). Consistently, these treatments maintained higher dry matter production and its distribution in component parts of plant, LAD, LAR, SLW, AGR and CGR. In addition to this, SNP @ 200 µM and FeSO<sub>4</sub> @ 0.5 % were also promising for maintaining dry matter production and growth parameters. According, the foliar sprays of CCC at lower followed by higher concentration @ 500 ppm and @ 1000 ppm and SNP @ 200 µM and FeSO<sub>4</sub> @ 0.5 % were found better for recording higher yield and yield components, harvest index and oil and protein content. Therefore, the foliar sprays of CCC @ 500 ppm and @ 1000 ppm might be considered as better plant growth regulator for maintaining growth and yield improvement in soybean.

**KEY WORDS :**

Plant growth regulator, Retardant, crop phenology, vegetative growth, Growth function, Yield components

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