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Effect of Nutrient and Weed Management on Growth and Yield of Late Sown Wheat

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ABSTRACT

A field experiment was conducted during 2018-19 and 2019-2020 at Crop Research Centre farm of the Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut located in Indo-Gangetic plains of Western Uttar Pradesh with the objective to assess the effect of nutrient and weed management on growth and yield of wheat. The treatments combination included four nutrient management options as first factor, viz., Control (T_1-No Fertilizer), 100% NPK (T_2), 100% NPK + Bio-stimulant-G@ 25kg/ha (soil application) (T_3) and 100% NPK + Bio-stimulant-L @ 625 ml/ha foliar spray each at 55&70 DAS (T_4) and four weed management options as second factor weedy check (W_1), Two hand weeding (W_2), Sulfosulfuron + Metsulfuron Methyl @ 20 + 4 g a.i./ha (W3), Carfentrazone-ethyl + Sulfosulfuron @ 20 + 25 g a.i./ha (W_4) respectively. Application of 100% NPK + Bio-stimulant-L @ 625 ml/ha foliar spray each at 55&70 DAS exhibited significantly higher growth and wheat productivity(46.2 and 46.8q/ha) among the nutrient management options.Also, the results indicate significant improvement in growth and yield (4.47 and 4.52t/ha) of wheat with the application of Sulfosulfuron+ Metsulfuron Methyl @ 20 + 4 g a.i./hafollowed by Carfentrazone-ethyl + Sulfosulfuron @ 20 + 25 g a.i./haover weedy. Hence application of 100 % NPK + Bio-stimulant-L @ 625 ml/ha foliar spray each at 55&70 DAS as nutrient management option and Sulfosulfuron + Metsulfuron Methyl @ 20 + 4 g a.i./ha as best weed management practice can be recommended for better growth and yield in wheat.

Keywords: Bio-stimulant-G, Carfentrazone-ethyl, Sulfosulfuron, weed management, wheat

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