

IMPACT OF SEWAGE WATER OF MEERUT CITY ON THE GROWTH AND YIELD COMPONENTS OF WHEAT (*TRITICUM AESTIVUM* L.)

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Abstract: A pot experiment was conducted in the winter season 2008-09 to evaluate the suitability of sewage wastewater of Meerut city as a source of irrigation due to some essential plant nutrients and its impact on growth and yield components of three wheat cultivars viz. PBW 343, PBW 373 and UP 2338. The test crop was raised with different concentrations of sewage water (T₁ : 10 %, T₂ : 25 %, T₃ : 50 %, T₄ : 75 %, T₅ : 100 %) compared to control plants (T₀) receiving normal ground water. Wastewater promoted growth, number of tillers, number of ears, total chlorophyll, 1000 seed weight, seed yield, biological yield and harvest index as compared to control. Physicochemical characteristics of sewage water met the prescribed irrigation quality requirement and were within the permissible limit of Indian standard. 50 % sewage water was found most suitable for the measured growth parameters while higher concentration proved inhibitory. Sewage water may be considered as an alternative of fresh water for irrigation purpose improving yield and quality of wheat crop.

Keywords: Chlorophyll content, growth, sewage water, yield and harvest index

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