RESPONSE OF WHEAT TO THERMAL POWER PLANT DISCHARGED WASTEWATER (TPPW) SUPPLEMENTED WITH NPK FERTILIZER

Sudhir Kumar and Sarita
Department of Botany, Kisan (P.G.) College, Simbhaoli, 245207, India
(E-mail: sainsarita87@gmail.com)

Abstract: A pot experiment was conducted in the winter season of 2008-2009 to evaluate the suitability of Thermal Power Plant discharged Wastewater of National Thermal Power Corporation (NTPC), Dadri as a source of irrigation and its impact on growth and yield components of two wheat cultivars viz. PBW 343 and UP 2338. The test crop was raised with different concentration of TPPW (T1: 10 %, T2: 25 %, T3: 50 %, T4: 75 %, T5: 100 %) compared to control plants (T0) receiving normal ground water supplemented with fertilizer N100P80K40 and N50P40K20. TPPW with N100P80K40 promoted growth, number of tillers, number of ears, total chlorophyll, seed yield per plant, 1000 seed weight, biological yield and harvest index as compared to control. 75 % effluent was found most suitable for the measured growth and yield parameters while 100 % concentration proved inhibitory. TPPW may be considered as an alternative of fresh water for irrigation purpose improving yield and quality of wheat crop.

Keywords: TPPW, Germination, Chlorophyll content, Growth yield

REFERENCES


