



ORIGINAL ARTICLE

ROLE OF FOLIAR APPLICATION OF NANO NPK, MICRO FERTILIZERS AND YEAST EXTRACT ON GROWTH AND YIELD OF WHEAT

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Abstract: A field experiment was conducted at AL-Husseiniya, Babylon Governorate to study the effects of nano-NPK application, micro fertilizer and yeast extract of *Saccharomyces cerevisiae* on growth and yield of wheat cultivar Adana 99. The experiment included 8 treatments with of Nano-chelated NPK 20-20-20 fertilizer (NNPK), Nano Complete Micro fertilizer (NCM), Yeast Extract of *Saccharomyces cerevisiae* (YE), two-component mixtures of nano-fertilizers and Yeast Extract (YE+NCM), (YE+NNPK), (NCM+NNPK), tri-component mixture (YE+ NCM+NNPK) and untreated control variant. The experiment was conducted according to RCBD design. The results showed that treatment with YE, NCM and NNPK followed by the combined spraying of di-(YE+NCM), (YE+NNPK), (NCM+NNPK) and tri-component fertilizers (YE+NCM+NNPK), respectively can increase the wheat growth and yield. The harvest index was in the range (from 35.31 to 45.58%) for control. The highest agronomic productivity was achieved with significant superiority when using foliar spraying of single nano-NPK and mixture of nano-fertilizers (NNPK+NCM) *i.e.*, 616.33Mg h⁻¹ and 509.00kg kg⁻¹, respectively.

Key words: Wheat, Foliar spray, Nano-fertilizers, Yeast, Agronomic efficiency.

Cite this article

Hayyawi W. A. Al-Juthery, E. A. H. M. Ali, Rafid N. Al-Ubori, Q. M. NAl-Shami and Duraid K. A. AL-Taey (2020). Role of foliar application of Nano NPK, Micro fertilizers and Yeast Extract on Growth and Yield of Wheat. *International Journal of Agricultural and Statistical Sciences*. DocID: <https://connectjournals.com/03899.2020.16.1295>