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**REDUCE THE EFFECT OF DROUGHT STRESS ON ZINNIA ELEGANS FLOWER WITH INTEGRATED TREATMENT IRON NANOPARTICLES AND PHOSPHORUS STABILIZERS BACTERIA (PSEUDOMONAS)**

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In order to evaluate the effect of integrated treatments Iron nanoparticles and Phosphorus stabilizers bacteria (*Pseudomonas*) on the morpho-physiologic traits of *Zinnia elegans* under drought stress, an experiment was carried out as factorial in a completely randomized design with four replications in 2016 in greenhouse conditions at Shahid Chamran University in Iran. In this experiment, Integrated treatments includes: 1) without fertilization (control), 2) 0.5  $\mu\text{mol}$  iron nanoparticles, 3) 1  $\mu\text{mol}$  iron nanoparticles, 4) 1.5  $\mu\text{mol}$  iron nanoparticles, 5) *Pseudomonas* bacteria without iron, 6) 0.5  $\mu\text{mol}$  iron nanoparticles + *Pseudomonas* bacteria, 7) 1  $\mu\text{mol}$  iron nanoparticles + *Pseudomonas* bacteria and 8) 1.5  $\mu\text{mol}$  iron nanoparticles + *Pseudomonas* bacteria and drought stress includes; 100% field capacity (no stress or control), 2) 75% of field capacity (medium stress) and 3) 50% field capacity (severe stress), respectively. Results have shown that drought stress significantly decreased the number of flowers, plant height, chlorophyll contents, relative humidity and soluble sugars. Integrated treatment of 1  $\mu\text{mol}$  iron nanoparticles+ *Pseudomonas* bacteria was caused *Pseudomonas* bacteria than other treatments improved the morpho-physiologic characteristics in drought stress conditions and introduced as the suitable treatment in this experiment.

**Keywords:** Drought stress, *Pseudomonas*, *Zinnia*, Iron nanoparticles.