



## Research Paper

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# Response of onion to soil and foliar application of iron on entisols

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**ABSTRACT :** An investigation was carried out on Typic Ustorthent (Entisol) to study the effect of soil and foliar application of iron on nutrient uptake and iron availability in soil and yield of bulb onion (cv. Basawant 780). The highest total uptake of total nitrogen (128.13 kg ha<sup>-1</sup>) and iron (4.45 kg ha<sup>-1</sup>) by onion was found in treatment of soil application of RDF + FYM + FeSO<sub>4</sub> @ 20 kg ha<sup>-1</sup> followed by treatment of RDF + FYM + FeSO<sub>4</sub> @ 20 kg ha<sup>-1</sup> + 0.5 % FeSO<sub>4</sub> at 30 and 45 days after transplanting. The iron availability in soil 20.12 and 21.43 mg kg<sup>-1</sup> was also increased in soil after harvest of onion in aforesaid two treatments, respectively. The same trend of increased in microbial count in soil after harvest of onion was recorded in above mentioned two treatments. The highest onion bulb yield (28.11 Mg ha<sup>-1</sup>) was obtained under the treatment soil application of RDF + FYM + FeSO<sub>4</sub> @ 20 kg ha<sup>-1</sup> on entisol.

**KEY WORDS :** Ferrous sulphate, Uptake, Microbial count, Residual Fe in soil, Onion bulb yield, Entisol

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