Review of: "Uptake of 15N-urea and phosphates in Triticum aestivum with Pseudomonas putida and Rhizophagus irregularis endophytes of calcareous soil weeds"

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In this paper, availability of urea and P_2O_5 is analyzed by using two different endophytes, isolated from the roots of desertic weeds. In salt affected soils nitrogen availability is a limiting factor for agriculture crop production. Nitrogen and phosphorus availability differs according to pH of the soil. One of the efficient technique, to overcome this problem is the introduction of *Pseudomonas putida* and *Rhizophagus irregularis*. These two endophytes were isolated from the roots of desertic weeds. Recommended dose of urea and P_2O_5 at 50% was applied. The fertilization rates used were 0, 60, and 120 kg/ha of urea and 0, 40, and 80 kg/ha of P_2O_5, respectively, which correspond to 0, 50%, and 100% of the regionally recommended rates. Both fertilizers were split into three parts and applied in bands throughout T. aestivum's most productive growth periods (tillering, anthesis, and early grain filling). The results demonstrated that urea and P_2O_5 uptake was improved 50% by using these microbes. This was the outcome of more soil urease and phosphatase activity. Volatilization and leaching losses by these fertilizers become less which ultimately decrease the greenhouse gases emissions. The endophytes improve the phytohormones which increase the nutrient availability.