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Influence of cobalt on Faba bean production under different nitrogen rates

Nadia Gad[1]* ; M.R.Abdel-Moez[1] and F. Anter[2]

[1]Plant Nutrution Dep. National Research Center, El-Behoos, Dokki, Cairo, Egypt
[2]Soils and Water Use Dep. National Research Center, El-Behoos, Dokki, Cairo, Egypt

Abstract : Two field experiments carried out to evaluate the effect of cobalt and different nitrogen doses on faba bean production. The experiments were conducted at Research and Production Station, National Research Centre, El-Nobaria Site, Beheara Governorate, Delta Egypt under drip irrigation system on 2014 and 2015 seasons.
The obtained results are summarized in the following:-
*Cobalt has a significant primitive effect on nitrogenase enzyme activity and nodulation rate especially with 100 % N followed by 75% N.
*Cobalt significantly increased faba bean growth, seeds yield as well as minerals and biochemical contents under all nitrogen rates compared with control (100% N alone).
*Cobalt with 75% N gave the greatest figures compared with 100% N alone.
*Cobalt with 50% N was no significant while with 25% N gave the lowest once.
Finally, the addition of cobalt to the soil, save 25% nitrogen fertilizer and could be reduced nitrogen environmental pollution and induced the agricultural cost for more money of farmers
Key words: faba bean – cobalt – nitrogen fertilizer.

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