Pakistan J.Soil Sc. 2(1-4), 1987; pp 33 - 36

THE EFFECT OF PHOSPHORUS AND POTASH ON THE GROWTH, NODULATION AND NITROGEN FIXING EFFICIENCY OF LUCERNE (MEDICAGO SATIVUM L.)

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ABSTRACT

The effect of Rhizobium inoculation and application of phosphorus (40, 60 kg ha^{-1}) and potash (40, 60 kg ha^{-1}) alone and in combination in the presence of uniform dressing of nitrogen applied @ 10 kg ha^{-1} was investigated on the dry matter yield, nodulation and nitrogen fixing efficiency of lucerne in a loamy soil in a pot culture experiment. The results indicate that application of phosphorus and potash, alone, and in combination, increased the dry matter yield of shoots pot^{-1} by 2.5 to 25.3 per cent and root dry matter yield pot^{-1} by 7.8 to 41.5 per cent. All the applied doses of phosphorus and potash significantly improved the number of nodules $plant^{-1}$ and increased N concentration in shoots dry matter of plants.