

EFFECT OF P, K, Mo AND Co ON YIELD AND NITROGEN FIXATION OF BERSEEM (TRIFOLIUM ALEXANDRINUM L)

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ABSTRACT

In a pot trial Egyptian clover was grown on a sandy clay loam soil receiving different combination of phosphorus, potassium, molybdenum and cobalt before sowing. Four cuttings were taken at intervals of 53, 42, 29 and 27 days. Phosphorus @ $150 \text{ kg ha}^{-1} \text{ P}_2\text{O}_5$ + 2 ppm Co proved to be the best dose for optimum fodder yield and nitrogen fixation. Application of K showed depressing effect on P-efficiency at the lower level of P application ($100 \text{ kg ha}^{-1} \text{ P}_2\text{O}_5$). Molybdenum depressed both fodder yield and nitrogen fixation. Potassium fertilization showed nonsignificant effect on K-concentration in plants. Nitrogen concentration in plants with different treatments was similar but greater than that in treatments P_1KMo and the control. Maximum nitrogen fixed by the crop was 214 mg kg^{-1} with the application of $150 \text{ kg P}_2\text{O}_5$ + $100 \text{ kg K}_2\text{O}$ + 2 ppm Co.