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Induced Salinity and Supplementary Phosphorus on Growth and Mineral Content of Frijolillo

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Abstract: A greenhouse pot experiment was carried out using pumice material to investigate the response of frijolillo [*Rhynchosia minima* (L.) DC] grown at high salinity to supplementary P (P). Plants were tested during a period from germination to vegetative growth stage. Four levels of sodium chloride (NaCl; 0, 25, 50, and 100 mM) combined with two levels of P (4 and 8 meq L^{-1}) were tested in a factorial arrangement with four replications. This cultivar was tolerant to salinity stress up to 50 mM of NaCl and its growth was not affected. However, with high salinity (100 mM of NaCl), growth of both stem and root was reduced. Concentration of potassium (K) and P was affected adversely. The increment of P in the saline solution results in a greatest accumulation of biomass and in a better response to the osmotic adjustment of this wild specie. The amount of NaCl was correlated negatively with the amount of K and calcium (Ca) and positively correlated with P and magnesium (Mg).

Keywords: Growth, NaCl, phosphorus, *Rhynchosia minima* L., salt stress

INTRODUCTION

Frijolillo [*Rhynchosia minina* (L.) DC] is a wild legume widely distributed along the coastal plains in Nayarit, México. This area represents the

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