

EVALUATION OF CHEMICAL EXTRACTANTS FOR K RELEASE AND THEIR CORRELATION WITH K-UP TAKE BY WHEAT IN DIFFERENT SOIL SERIES OF PUNJAB

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ABSTRACT

A pot experiment was conducted to evaluate five extractants (H_2O , NH_4OAc , $MgOAc$, $CaCl_2$ and HNO_3) for K extraction from Kotli, Pindorian, Wazirabad, Shahdhra, Lyallpur and Sultanpur soil series for their correlation with K uptake by wheat plant. K_2O was applied @ 0, 25, 50, 75 and 100 mg kg^{-1} of soil to each soil series. Quantity of K extracted by each extractant in all the soil series increased significantly with increasing amount of K application. Potassium extracted by different extractants was in the order of $H_2O < CaCl_2 < MgOAc < NH_4OAc < HNO_3$. Significant correlation was found between K extracted by various extractants and K in grain and straw in all the soil series. The results of this study suggested that 1N NH_4OAc , 0.5N $MgOAc$ or 0.025 $CaCl_2$ can be used for K indexing of these soil series.