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EFFECT OF SOIL MOISTURE ON POTASSIUM AVAILABILITY OF SOILS

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A seedling experiment was conducted with five soil moisture levels (30, 40, 50, 60, 80%FC) at three K Levels (K_0=0, K_1=40, K_2=80 ppm K) using a loamy sand soil with the main objective of investigating the effect of soil moisture on K availability. Mustard *Brassica juncea* L served as the indicator plant. Potassium taken up by 10 day old seedlings was used to evaluate K availability. The

main effect of potassium and soil moisture on K availability was significant. When different K levels were compared, the increase of K uptake from K_0 to K_1 was more than K_1 to K_2. The K uptake differences between adjacent moisture levels were not significant. However, the trend comparison showed a significant increase in K uptake within the moisture range of 40-60% FC. These results indicate that the K availability of this soil cannot be improved by changing soil moisture levels within low (30% FC) or high (80% FC) levels even by 10% of FC.