SORGHUM GROWTH AND CHEMICAL COMPOSITION AS INFLUENCED BY POTASSIUM FERTILIZATION AND MOISTURE REGIMES

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ABSTRACT:

In a green house study, the effect of potassium sources, their rates of application and moisture regimes on sorghum yield and K and S uptake was investigated at the National Agricultural Research Centre, Islamabad. Results revealed that potassium sulphate gave significantly greater sorghum dry matter yield than potassium chloride. Dry matter yield increased significantly with an increase in the rate of application from 0 to 18.5 mg K kg^{-1} soil, however, the increase being nonsignificant at higher levels of K application (37.0 and 55.5 mg K kg^{-1} soil). Further the dry matter yield was significantly depressed at 75% depletion of moisture at field capacity compared to its 50% depletion. Uptake of K and S was significantly greater with potassium sulphate than potassium chloride. Also their uptake increased significantly with an increase in the rate of potassium application. Further their uptake was significantly depressed at the stressed moisture regime i.e. 75% depletion of moisture at field capacity.