Effect of irrigation intervals and potassium application methods on yield and yield components of wheat crop irrigated with surge flow.


Abstract:

Field experiments were carried out for two consecutive seasons at the Experimental Station of Soil and Water Department, Faculty of Agricultural, Assiut University, to study the effect of both irrigation intervals and methods of potassium application on yield and yield components of wheat (Triticum aestivum L.) beside potassium content in plant and soil. The experimental design was a split plot design with four replications. The main plots were three irrigation intervals (15, 21 and 28 days), while the sub-plots contained two methods of potassium application (side dressing and fertigation). Results indicated that, shorter irrigation intervals improved yield and yield components of wheat crop. The best yield was obtained from 15 days irrigation interval followed by 21 days. Longer irrigation interval (28 days) produced the least yield and yield components due to water stress conditions. Applying potassium with irrigation water improved yield of wheat crop and potassium contents in grain and straw yields compared to side dressing application. Also it increased the available potassium in soils.

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