Effect of NPK Fertilization Rates and Splitting on the Grain Yield and its Components of Two Sorghum Cultivars

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Abstract:

The present research was concerned with studying the physiological response of two sorghum cultivars to different rates and splitting of NPK. This study was carried out in the Experimental Agricultural Farm of Agriculture faculty in Assiut Univ, Assuit Governorate, Egypt; during the two growing seasons of 2012 and 2013. The field experiment was carried out in a randomized complete block design (RCBD) using split-split plot arrangement with three replications. The cultivars (Giza 15 and Dorado cultivar) were a signed in the main plot, while the NPK rates (75, 100 and 125% of the recommended NPK fertilizers/fed) were allotted in the sub plot and different Split doses (1, 2, 3 and 4 times) were allotted in the sub-sub plots. The experimental unit area was 12 m2. In general, the maximum meanvalues of grain yield (21.2 and 23.1 ard/fed in 2012 and 2013 seasons, respectively) were obtained from Giza 15 cultivar when received the highest NPK rate (125% of the recommended NPK fertilizers/fed) applied at three equal doses.

Keywords:

Sorghum, NPK. Fertilization rates and splitting

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