Abstract:

Abstract A field experiment was carried out at the Experimental Farm, Agriculture Faculty, South Valley University at Qena Governorate, Egypt, during 2013/2014 and 2014/2015 seasons to study the effect of salicylic acid and NPK fertilization on wheat productivity. The experiment was laid out in a randomized complete block design (RCBD) using strip plot arrangement with three replications. The first variable was salicylic acid concentrations which occupied horizontally. While the second one was NPK rates which allocated vertically. The obtained results showed that all studied traits in both seasons were affected significantly by salicylic acid concentrations in favour of 150 ppm concentration as well as by NPK fertilization rates in favour of high rate (125, 45 and 48 kg fed-1 of N, P and K, respectively). Furthermore, wheat plants sprayed by high salicylic acid concentration and subjected to high NPK fertilization rate produced the highest mean values of grain yield (2600 and 2520 kg fed-1 in the first and second seasons, respectively). While, wheat plants sprayed by high salicylic acid concentration and subjected to low NPK fertilization rate gave the maximum mean values of use efficiency for nitrogen, phosphorus and potassium in both seasons.

Published In:

Assiut J. Agric. Sci., 48(5), 21-33