

Soybean yield and quality as affected by spraying NPK fertilizers compound with amino acids and micronutrients

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Abstract: This study aimed to investigate the effects of foliar NPK fertilizers compound with micronutrients spraying at different levels and amino acids on soybean plants. The field experiment was conducted at Al Sharkia Governorate, Egypt in a private farm through a project of soil and water use Dept. of the National Research Center. This experiment design with three replicates. Soybean seeds (Giza 21) were sown on the 15th of June, 2014. The NPK fertilizers contain macronutrients from N, P and K as (20- 20 -20) foliar application. The micronutrients were mixed from (Fe, Zn, Mn, Mg and B) and added every 15 days with irrigation at two levels 1.5 and 2.0 Kg fed⁻¹. The amino acids were applied at two levels as 1.5 and 2.0 g/l. The results are as follows: 1-The application of foliar NPK fertilizers with amino acids at 2.0g/l compound with mixed micronutrients as 2.0 Kg fed⁻¹ increased the vegetative growth of soybean plants compared with control. 2- The best results of yield and its compound and concentrations of N, P and K were recorded with foliar NPK application compound with increasing the rate of amino acids and mixed micronutrients.

Key word: Soybean, foliar fertilization, NPK, Micronutrients, Amino acids.

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