

EFFECT OF POTASSIUM FERTILIZER, DEFICIT IRRIGATION AND ORGANIC MATTER ON COTTON TOLERANCE TO DROUGHT.

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ABSTRACT

Field experiment was carried out in Diyala province during the agricultural season 2012 eastern city of Baquba. The soil texture was Silty Clay, to study the effect of organic matter (cows residues) (0, 8, 16 tons.ha⁻¹) and fertilizer potassium (potassium Sulphate) is (0, 240, 480) kg.ha⁻¹ / potassium sulfate and irrigation levels of (100% and 80% and 60%) of water available to plant on growth and yield the cotton crop (var.Lashata), The experimental design in split with R.C.B.D design was applied with three replications , the results showed significant differences for levels of irrigation in all properties as more than 100% level to give the highest quotient did not differ significantly from the 80% level, as well as the results showed that the levels of organic matter has significant effect on all traits as it gave added 16 tons.ha⁻¹ higher yield did not differ significantly from the level 8 tons.ha⁻¹, and the levels of potassium fertilization significant effect on all properties , as it gave the second level to 240 kg.ha⁻¹ up yield did not differ significantly from the third level, and had interaction significant effect among the three factors for all traits except early maturity character, as given first and second level of irrigation with the second level of organic matter and potassium fertilization gave higher yield compared with the levels and three factors. **Key words** : Deficit irrigation ,Potassium , Organic matter , Cotton .