

Title: Effects of mulching on soil moisture content in the maize plantation of the university of Embu

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Abstract

Conservation of soil moisture content in Kenya requires improvement of agricultural practices which translates to improvement of yield per unit area of land. Besides poor soil nutrients status, water is a limiting factor to crop production especially in the rain-fed farming systems like in the central highlands of Kenya. There is hence a need to address soil water scarcity challenges in order to increase crop production and soil water retention. The objective of the study is to determine the effect of mulching on soil water in the maize fields of University of Embu during the long rains season of 2018. The treatment arrangement is split-plot laid down in a randomized complete block design (RCBD). Data in soil moisture content is to be subjected to Analysis of Variance (ANOVA); mulching on bare soil without plantation, with maize plantation, no mulching on maize plants and on bare land. In this case mulching is to be carried out through the application of grass on bare soil and on maize plantation. The value and use of mulch in various crops is widely adopted due to difficulties of the availability and handling of the materials.