

Effects of Mulching on Tomato Production in Kenya

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Abstract

Mulching is an agricultural and horticultural practice where organic or synthetic materials are used to cover the ground underneath the crops as a way of protecting plant roots from heat or cold. This practice is also very useful in weed control or preventing water loss through evaporation. Mulching also exerts decisive effects on earliness, yield and quality of the crop. A field experiment was conducted during the dry season of January to April 2016 at the University of Embu, Embu Kenya, horticultural plots to evaluate the effect of mulch types on the growth and yield of tomatoes. Tomato cultivar Rambo F1 was used in the experiment. The experimental materials were laid out in a complete block design with 3 replications. The treatments were applied randomly in the plots. The treatments included black plastic mulch, colorless plastic mulch, grass mulch and control (no mulch applied). The plots were irrigated twice per week after establishment up to fruit maturity in order to detect the treatment effects on moisture conservation, crop yield and fruit quality. The organic mulch was found to conserve moisture better than the plastic mulches through regulation of soil temperatures. This contributed to lower incidences of blossom end rot which eventually contributed to higher marketable yields.