

Studies on Effect of Mulching on Growth, Yield and quality of Watermelon cv. Sugar Baby

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ABSTRACT

A field experiment was conducted to know the effect of mulches viz., transparent plastic mulch, paddy straw mulch and soil mulch on growth, yield and quality of water melon C V. Sugar baby under South Gujarat conditions during summer season 1997 at Agricultural Experimental Station, Gujarat Agricultural University, Paria. Observations were recorded for days for germination, per cent germination, soil temperature, length of main axis, number of primary branches per plant, node number on which first female flower appeared, number of fruits per vine, fruit weight, total soluble solids and fruit yield per hectare. The results revealed that all the mulching treatments differed significantly for all the characters under study. The transparent plastic mulch showed significantly higher per cent of seed germination (97%) in minimum number of days (5.9), higher length of main axis (229 cm) and more number of primary branches per plant (7.83) and it also maintained high soil temperature. Besides, transparent plastic mulch also increased number of fruits per vine (3.01), fruit weight (2.8kg) and fruit yield per hectare (231 q). The TSS was not influenced by mulching treatment. The results indicated that use of transparent plastic much was the best for getting early, uniform and higher per cent of germination in watermelon.

Key words : Growth, Mulching, Paddy Straw Mulch, Soil mulch, Sugar baby and Transparent Plastic Mulch.