



Research Article

COMPARATIVE STUDIES ON THE EFFECT OF HOUSEHOLD PACKAGING ON THE ANTIOXIDANT PARAMETERS OF THE ORGANIC AND CONVENTIONAL *CUCUMIS SATIVUS* L.

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ABSTRACT

Organic foods are becoming popular for the health benefits they provide to the consumers. But proper storage of organic fresh produce is essential to preserve its vital nutrients. The present study was framed to show the effect of domestic packaging on the antioxidant status of organic and conventionally grown *Cucumis sativus* L. stored at different temperatures. The organic and conventional *Cucumis* were stored without any packaging, in Polypropylene (PP) Container, in Low Density Polyethylene (LDPE) Zipper bag, and in Cling film wrap at ambient temperature (25°C) and low (4°C) for 3 and 7 days. The ascorbic acid content, total carotenoids, total polyphenols, total flavonoids, tannin contents, and DPPH, ABTS, and FRAP antioxidant capacities were estimated and compared by ANOVA test with p value <0.01. Results showed that the ascorbic acid, total carotenoids, tannin, and flavonoids were reduced during storage and more significantly that of DPPH and FRAP antioxidant capacities. Therefore, packaging at ambient and low temperatures creates a modified atmosphere within it, which can be considered as a devising strategy to preserve antioxidants in organic and conventional *Cucumis* at domestic level.