

## RESEARCH REGARDING THE INFLUENCE OF STORAGE CONDITION ON BROCCOLI VITAMIN C CONTENT

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### Abstract

The commercial potential of Broccoli (*Brassica oleracea*) is very high for the several ways: the vegetable can be utilized and also for its chemical composition, nutritional value and pleasant taste. The content of vitamin C in fruits and vegetables can be influenced by various factors such as genotypic differences, preharvest climatic conditions and cultural practices, maturity and harvesting methods, and postharvest handling procedures (*Palma A. et al., 2015*). The aim of this study is to highlight some metabolic changes, namely ascorbic acid in broccoli flower buds during short term refrigerated storage of broccoli heads under commonly applied conditions. Materials and Methods: It was studied one set of samples, having total weight of 200 – 250 g (8 – 10 florets), who were kept in plastic perforated trays both in open ambient storage conditions ( $19 \pm 1^{\circ}\text{C}$  and  $55 \pm 2\% \text{ Ur}$ ) and in laboratory refrigerated storage conditions ( $4 \pm 1^{\circ}\text{C}$  and  $50 \pm 2\% \text{ Ur}$ ). The another set was packaged with commercial polypropylene film with 10 pin holes stored in the same conditions. The samples was evaluated in  $T_0$  moments, after 1 day, 3 and 7 days of storage. The ascorbic acid was determinated by using the 2,6 – diclorphenol-indophenol method. The initial content in ascorbic acid of fresh broccoli floret's was 75,9 mg/ 100g which decreased during storage under ambient conditions from laboratory and the samples stored under  $4^{\circ}\text{C}$  showed significant changes in ascorbic acid content by the end of storage (7 days). The ascorbic acid decreased rapidly in the florets unpacked, kept in open ambient plastic trays compared with the samples kept in refrigerated conditions.

**Key words:** ascorbic acid, broccoli, refrigerate, storage condition