

**RESEARCH ARTICLE :**

Effect of storage on ascorbic acid content in fresh fruits and vegetables

■ KUMARI SUNITA AND Y. PRABHABATI DEVI**ARTICLE CHRONICLE :****Received :**

11.07.2017;

Accepted :

25.08.2017

SUMMARY : Two fruits (aonla and guava) and two vegetables (cauliflower and cabbage) were selected to determine the effect of storage on their ascorbic acid content. Fruits were evaluated for their organoleptic attributes, too. The ascorbic acid contents were recorded at zero day, one, two, three, four, five and six days after storage. Significant reduction in ascorbic acid content was observed in aonla ($F=115.3810, P<.0005$ ***) guava ($F=40.98, P<.005$ ***) cauliflower ($30.223 P<.005$) and cabbage ($F=21.8995, P<.005$ ***). The per cent loss recorded in aonla, guava, cauliflower and cabbage were 34.89, 52.84, 74.36, and 63.71, respectively. Organoleptically aonla and guava were in acceptable condition for 3 days and 2 days, respectively. Being perishable fruits and vegetables need quick disposal and utilization of these fruits in processing industry.

KEY WORDS :

Organoleptic, Ascorbic acid, Storage, Perishable

How to cite this article : Sunita, Kumari and Devi, Y. Prabhavati (2017). Effect of storage on ascorbic acid content in fresh fruits and vegetables. *Agric. Update*, 12(TECHSEAR-10) : 2987-2991; DOI: 10.15740/HAS/AU/12.TECHSEAR(10)2017/2987-2991.

BACKGROUND AND OBJECTIVES

Fruits and vegetables are rich sources of vitamins especially vitamin C or ascorbic acid. Vitamin C has been advocated to be essential for human health and longevity. Being a strong reducing agent, it protects the cellular components from oxidative damage and supplementary vitamin C may reduce the risk of colorectal cancer (Flood *et al.*, 2002) and cancer of the gastrointestinal tract (Ames *et al.*, 1993). Fruits and vegetables continue to respire even after they are harvested (Protter and Hotchkiss, 1977). Ascorbic acid is present in reduced form in them and it is susceptible to oxidation and exposure to air changes it

into a form of vitamin with no vitamin in value.

Usually in homes, market purchased vegetables are kept open in plastic containers (Padma *et al.*, 1982) without knowing how much of ascorbic acid is lost. Therefore, an investigation was carried out to find out the effect of storage on ascorbic acid content in fresh fruits and vegetables and to evaluate the fruits organoleptically during the same period.

RESOURCES AND METHODS

Two fruits and two vegetables viz., aonla, guava, cauliflower and cabbage which are rich to fair sources of ascorbic acid were taken

Author for correspondence :

KUMARI SUNITAKrishi Vigyan Kendra,
Madhopur, WEST
CHAMPARAN (BIHAR)
INDIAEmail : sunitascientist@gmail.comSee end of the article for
authors' affiliations