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EFFECT OF TEMPERATURE AND SULPHURDIXIDE CONCENTRATION ON THE RETENTION OF ASCORBIC ACID IN SOME DEHYDRATED VEGETABLES.

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ABSTRACT

The effects of various levels of $K_2 S_2 O_5$ concentration and different storage temperatures, containers and storage periods, retention of ascorbic acid in three summer vegetables viz Lady's finger, spong gourd and bitter gourd were studied during the year 1966, in the College of Agri : University of Peshawar. The fresh Ladys' finger contained, 14.9 mg, sponge gourd contained 12.66 mg. and Bitter gourd had 88.21 mg of ascorbic acid 100 gms on moist weight basis. The dried Ladys' finger blanched and sulphited in 0 5%, 1.0% and 1 5% metabisulphite solution contained 140.3 mg 145.8 mg and 152.0 mg of ascorbic acid/100 gms, sponge gourd contained 45.9, 49.2 and 42.4 mg and Bitter gourd 320.7, 342.2 and 345.90 mg/100 gm respectively.

When stored at room temperature ascorbic acid content decreased with passage of time. After a storage period of 320 days a loss of 83% of ascorbic acidtreated with 1.5% metabisulphite solution and loss of 90% treated with 0 5% metabisulphite, solution was recorded.

In sponge gourd a loss of 97.7% to 100% was recorded where as the losses in Vit C contents of bitter gourd was 61% to 70%. Samples treated with higher concentrations of potassium metabisulphite solution retained higher quantities of ascorbic acid. Samples similarly treated, stored at 40°F retained greater quantities of Vit C. The average losses of Vit C for Ladys' finger, sponge gourd and bitter gourd were 20.8%, 24.4% and 15.6% respeetively. In all the treatment bitter gourd experienced minimum losses in Vit. C content, whereas in sponge gourd maximum losses occured in ascorbic acid. Increase in concentration of metabisulphite solution had favourable effect on Vit. C retention in the dried vegetables.

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