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Storage studies of ber powder at room temperature

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ABSTRACT

The present studies were undertaken in the Department of Horticulture, Marathwada Agricultural University, Parbhani. The treated samples were dried by two methods *viz*., sundrying and cabinet drying. The completely dried fruit pieces were grinded to powder form and stored in 80 gauge and 400 gauge polythene bags at room temperature for two months. The freshly prepared *ber* powder was analyzed for moisture content, acidity, ascorbic acid, sugars and non-enzymatic browning. The analysis of *ber* powder was undertaken at monthly interval. From the present studies it can be concluded that there is suitability of *ber* powder dried by sun drying and cabinet drying and available for utilization during off-season.

Key words : Ber, Fruit power, Sundrying

INTRODUCTION

The *ber* belongs to genus Ziyphus of the family Rhammaceae which has about 50 genera and more than 600 species. The Arabic name of fruit is Zizyphus lotus (Bailey, 1947). *Ber* has great medicinal value. *Ber* fruits are beloved to purify blood and help digestion and laxative, invigoration removing burning sensation, thirst omitting and blood diseases. The astringent seed is a tonic for heart and brain and allarys thirst. *Ber* fruit crop occupy about 12,000 ha area in India. The present study is useful to available *ber* powder in off-season.

MATERIALS AND METHODS

The present studies were carried out during 2000-2001 at Department of Horticulture, Marathwada Agricultural University, Parbhani. The *ber* fruits of same maturity were collected from the Central farm, Marathwada Agricultural University, Parbhani. Before drying and dehydration the following pre-treatment were given.

Blanching :

Weighed quantity of *ber* fruits was taken in muslin cloth and was dipped in boiling water for 5 to 8 minutes (Kurdiya, 1980).

Sulphitation

Sulphitation was done by steeping pieces in 1 per cent solution of potassium metabisulphite (KMS), the weight of the water was twice the weight of the pieces. The pieces were kept in the solution for 30 minutes (Khedkar, 1977). The drying and dehydration was carried out by sun drying and cabinet drying.

The *ber* powder prepared from unblanched, blanched and sulphited samples, sundried and cabinet dried pieces were converted into powder form and then packed in different packaging materials.

- Packaging in polythene bags (80 gauge)
- Packaging in polythene bags (400 gauge)

The powder packed was stored at room temperature ($27+5^0$ C).

Preparation of sample of dried powder for chemical analysis :

Known weight of dried powder was blended with little distilled water in pestle and mortaur to homogeneous pulp and then was taken for estimation. Acid, sugars and ascorbic acid was estimated as stated earlier.

Non-enzymatic browsing :

Non-enzymatic browsing (NEB) was measured as alcohol extractable colour, by soaking the product in 50 per cent ethanol for 24 hours with occasional shaking, filtering and recording the optical density at 420 nm (Thorat *et al*., 1963).

RESULTS AND DISCUSSION

The results obtained from the present investigation are summarized below :

Changes in chemical constituents of ber powders prepared from Gola variety during storage :

The data regarding the changes in chemical constituents of the stored *ber* powder prepared from unblanched, blanched and sulphited powder packed in polythene bags of 80 and 400 gauge of Gola variety of *ber* are presented in Table 1 and 2. The data revealed that there was slight uptake of moisture after two months

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