RESEARCH PAPER

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Drying effect on storage and organoleptic qualities of okra [Abelmoschus esculentus (L.) Moench.]

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● ABSTRACT ●

Okra is an important commercial crop grown in India. As it is seasonal in nature its availability is limited only to some part of the year. Okra is harvested at green, tender stage. Hence, the produce cannot be stored for longer period. Drying is one of the most widely used and a primary method of preservation. In this connection investigations were carried out to study the effect of drying on storage and organoleptic qualities of okra slices to make it available in off season. Okra slices were made and dried under three conditions *viz.*, sun drying, ambient temperature drying and convectional drying at selected levels of temperature. Results indicated that okra slices dried at 40°C under conventional drying recorded better results in maintaining good organoleptic qualities than those dried in sun drying and ambient drying methods.

KEY WORDS: Organoleptic qualities, Sun drying, Ambient temperature drying, Convectional drying

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● Introduction ●

Vegetables and fruits are indispensable part of human diet and can be regarded as the fuel for physiological processes. 25-30% of total produce is being wasted during handling from point of production to consumer's plates. This wastage can be effectively reduced by applying appropriate method of processing and preservation. In this regard some of the vegetables have been traditionally processed by drying to extend their storage life well beyond few weeks and make them available in off season.

Okra [Abelmoschus esculentus (L.) Moench.] is one of the fruit vegetable, normally consumed as a vegetable in large scale throughout India and other parts of the

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world. The immature, fresh and tender fruits which are generally cooked as vegetable for culinary and soup purposes. The fruits also have some medicinal value and provides moderate amount of vitamins, dietary fiber, energy and minerals. They may also be dried and ground into the powder and added for flavoring in various dishes. In India okra is traditionally preserved by slicing and sun drying on the ground, concrete floors, racks, trays and other drying surfaces up to 5-6 days till it becomes brittle. (Kalra and Bharadwaj 1981). The present investigation was carried to find out the most effective drying method for storage and organoleptic qualities of okra.

■ MATERIALS AND METHODS

The experiment was conducted on effect of drying on storage and organoleptic qualities of okra in the Department of Horticulture, UAS, Dharwad, Karnataka state, India. The fresh okra fruits were collected from Dharwad local market during Jan- March, 2008. The average dimensions of fruit were 60-80 mm long and 15-20 mm diameter. Dark green coloured fruits were selected for the study. The fruits were thoroughly washed and sliced into 5 mm thickness using sharp sterilized knife. The slices were then weighed exactly 50 grams for each treatment.

These were kept for drying in three replications. The convection drying was carried by drying the samples at