

## Effect of size grading and packaging along with transportation during storage on quality of *Jamun* (*Syzygium cuminii* Skeels) fruits

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**SUMMARY :** The experiment was conducted in the month of June, 2009 at Department of Horticulture, B. A. College of Agriculture, Anand Agricultural University, Anand to justify the effect of size grading and packaging along with transportation on quality of *Jamun* fruits during storage. The graded fruits (grade A and B) were packed in different containers (Bamboo basket, CFB box and Wooden crates) with and without lining (Newspaper, Polyethylene and *Jamun* leaves) and transported for 200 km and then kept in room at ambient temperature for four days. The fruits were examined on daily basis for physiological loss in weight and spoilage loss. While, chemical parameters viz., TSS, pH, acidity, ascorbic acid, reducing sugar and non reducing sugar were examined on 1<sup>st</sup> and 4<sup>th</sup> day of storage. The result revealed that grade A (16.00 to 22.00 g) fruits packed in CFB box having newspaper lining proved to be the best treatment than grade B (12.00 to 15.99 g) fruits as well as rest of the containers. The treatment effectively reduced physiological loss in weight and spoilage loss with minimum changes in chemical constituents than the rest of the treatments and hence can be used for post harvest management of *Jamun* fruits.

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The *Jamun* (*Syzygium cuminii* Skeels) is a nutritious fruit with a variety of uses. It is one of the most hardy fruit crops and can easily be grown in neglected and marshy areas, where other fruits plants cannot be grown successfully. The fruit is good source of iron, sugars, minerals, protein and carbohydrate etc. Fully ripened fruits are eaten as fresh fruit and can be processed into beverages like jelly, jam, squash, wine, vinegar and pickles. A little quantity of *Jamun* fruit's syrup is much useful for curing the diarrhea. *Jamun* seeds contain alkaloids like jambosin and glycoside, which reduce the diastatic conversion of starch in to sugars. Fruits are used as an effective medicine against diabetes, heart and liver trouble (Singh, 2001). Leaf extract of *Jamun* reduces the radiation induced DNA damage in the cultured human peripheral

blood lymphocytes (Prince *et al.*, 2003). Therefore, the *Jamun* fruits are having high value in terms of therapeutic and nutrition.

There is a considerable variation exists in the quality of harvested fruit due to genetical, environmental and agronomic factors and therefore requires grading to get suitable returns from the market. Systematic grading coupled with the scientific packaging and storage reduces the post harvest losses and marketing costs substantially, which enables the producer to fetch a competitive price. *Jamun* should be graded on the weight basis to fetch better price in the market.

Adequate packaging protects the fruits from physiological, pathological and physical deterioration in the marketing channels and retains their attractiveness. *Jamun* fruits are highly perishable and are normally packed in bamboo baskets for transport to local market.

Therefore, an experiment was planned to study the effect of grading and packaging along with transportation on quality of *Jamun* fruits.

### MEMBERS OF RESEARCH FORUM

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### EXPERIMENTAL METHODS

The present investigation was carried out during June, 2009 at the P.G. Laboratory, Department of Horticulture,