

A CASE STUDY

Processing and value addition in jamun

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SUMMARY : Jamun (*Syzgium cumini*) is a fruit consumed by all sections of people in India. It is cheaply available and has certain medicinal properties too. The jamun seeds contain an alkaloid, jambosine, and a glycoside, jambolin or antimellin, which halts the diastatic conversion of starch into sugar. The seed extract lowered blood pressure by 34.6 per cent and this action was attributed to the ellagic acid content. It is widely used for the treatment of diabetes in various parts of world. Processing of jamun fruit into value-added products result in a wide variety of exotically flavored product with better nutritional and sensory qualities may unveil new market for export.

Key Words : Jamun, Jamun seed powder, Jamun vinegar, Jamun juice, Jamun wine

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Bugenia jambolana (Family Myrtaceae) is also known as Syzygium jambolanum and Syzygium cumini. It is commonly known as java plum, jambul, jamun, black plum, faux pistachier, Indian blackberry, doowet and jambolan (Morton and Miami, 1987; Zaman and Shariq, 1995). Jamun is native to the subtropical Himalayas, India, Sri Lanka, Malaysia and Australia (Bose, 1985). Its fruits are delicious and have great importance in folk medicine (Chopera, 1956). The jamun is of wider interest for its medicinal applications than for its edible fruit. Different parts such as bark, fruit and seed possess

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medicinal and therapeutic values (Kirtikar *et al.*, 1990; Noomrio and Dahot, 1996). Jamun fruit is one of those which contain a variety of important nutritional compositions. The jamun fruit contains 83.7-85.8g moisture, 0.7-0.129g protein, 0.15-0.3g fat, 0.3-0.9g crude fiber, 14g carbohydrate, 0.32-0.4g ash, 8.3-15mg calcium, 35mg magnesium, 15-16.2 phosphorus, 1.2-1.62mg iron, 26.2mg sodium, 55mg potassium, 0.23mg copper, 13mg sulfur, 8mg chlorine, 80 I.U. vitamin A, 0.008- 0.03mg thiamine, 0.009- 0.01mg riboflavin, 0.2-0.29 mg niacin, 5.7-18mg ascorbic acid, 7 mg choline and 3 mcg folic acid per 100 g of edible portion (Noomrio and Dahot, 1996).

Medicinal uses:

The jamun seed possess many medicinal properties in Ayurveda system of medicine. The fresh seeds are most effective in diabetes as they quickly reduce sugar in urine (Zaman and Shariq, 1995). Jamun fruit is used for the prevention of diarrhea, stomachache, astringent, diuresis and diabetes. The fresh jamun juice is mixed with goat's milk and then given to children in diarrhea (Zaman and Shariq, 1995). It is also used for enlarged spleen, chronic diarrhea and urine retention. Water diluted juice is used as a gargle for sore throat and as a lotion for ringworm of the scalp. The extract of jamun seed lowers blood pressure more than 30 per cent and this action is attributed to the ellagic acid content of the extract (Morton