Himalayan Fruits and Berries

Bioactive Compounds, Uses and Nutraceutical Potential

Edited by

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Chapter 38

Syzygium cumini (L.) Skeels.

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38.1 Introduction

Scientific name: *Syzygium cumini* (L.) Skeels.

Family: Myrtaceae (Nair, 2017).

Synonyms: *Eugenia cumini* (L.) Druce, *Eugenia jambolana* Lam., *Myrtus cumini* L., *Syzygium jambolanum* (Lam.) DC. (Nair, 2017).

Common names: Bengali: Jam, Jambul, Jambhul, Jambula, Jamboola; Marathi: Jambhool; Hindi: Jamun, Jomuna, Raja Jambu; English: Java plum, Jamun, Jaam/Kalojaam, Jamblang, Jam, Black plum, Damson plum, Duhat plum, Jam plum, Portuguese plum; Sanskrit: Brahaspati, Jambavam, Mahajambu, Ksudrajambu; Assamese: Jam; Gujrati: Jambu, Jambuda; Kannada: Merale, Jamneralae, Jambu, Neralamara; Malayalam: Njaval, Naval; Oriya: Jamukoli, Jamu, Jam; Punjabi: Jammu; Tamil: Naaval, Navval Sambu, Mahamaram, Nagal; Nepali: Jamun, Jamuna, Kalo Jamun, Phanir.

Syzygium cumini (L.) Skeels is a large evergreen flowering tree, that grows up to 30 m in height belonging to the family of Myrtaceae, originally from the Indian subcontinent and widely distributed in many countries in South Asia, such as India, Bangladesh, Burma, Nepal, Pakistan, Sri Lanka, as well as Indonesia, and some other countries like Africa, and South America. (Thorat, 2017; Chagas et al., 2015; Ayyanar and Subash-Babu, 2012). In India, *S. cumini* is available more in the Himalayas, Kerala, Karnataka, Andhra Pradesh, North India, and East India (Agarwal et al., 2019). It is commonly known as Jamun in India, black plum in Europe, jambolan in Spanish-spoken countries, and jambolão in Brazil (Chagas et al., 2015). The different parts of the plant (Fig. 38.1) have been used medicinally for the treatment of various kinds of diseases. The bark is used as antidiabetic, gastroprotective, and antiulcerogenic (Nadeem et al., 2019; Schossler et al., 2004; Ramirez and Roa, 2003); the seed uses as an anti-inflammatory, radioprotective, antibacterial (Shinde et al., 2008; Kumar et al., 2009; Jagetia et al., 2005; Roy et al., 2011). The leaves of the plant have anti-allergic and antivibrio cholera activity (Ahsan et al., 2012). The berries have a deep purple to violet color with pinkish pulp and are broadly consumed as fruit. In addition to their nutraceutical value, fruits are used in traditional medicine for the treatment of various kinds of diseases (Ayyanar and Subash-Babu, 2012). The ripe fruits of *S. cumini* were found to have cardiovascular effects like hypotensive, vasorelaxant & antihypertensive in rats. The ripe fruits are used for making health drinks, preserves, squashes, jellies, and wine (Agarwal et al., 2019).

38.2 Traditional/ethnomedicinal/local uses, socio-economic aspect, and market value

The medicinal values of plants were known even from the periods of prehistoric humans, regardless of any scientific data or chemical constituents of the plants. From the ancient days, Ayurveda and the Unani system of medication have given significant value to various therapeutic properties of Syzygium (Jadhav et al., 2009). From the tropical to the subtropical world, the fruits of this family have an affluent history of use both as nutritious food and traditional medicines in ethnobotanical practices (Ayyanar and Subash-Babu, 2012). In the southern, it was well-regarded by Buddhists, and it is usually planted by Hindu temples because it is considered a blessing of Lord Krishna (Morton, 1987). Jamun fruits and leaves are used in worshipping the Lord Ganesha (Sowjanya et al., 2013). Regarding traditional uses, all parts of *S. cumini,* with

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