



DIOSPYROS MELANOXYLON (TENDU): A DIVERSIFIED NTFP FOR TRIBALS

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ABSTRACT: *Diospyros melanoxylon*, an evergreen (moist climate) and deciduous (dry climate), multipurpose, drought and frost hardy medium sized tree/shrub of family Ebenaceae native to most of the states in India. It is commonly known as "Tendu" in central India and "Kendu" in Odisha. The plant is distributed in Jharkhand, Madhya Pradesh, Chhattisgarh, West Bengal, Odisha, and Bihar. The special property due to which the leaf of this plant is used to make beedis is an NTFPs most popularly used by tribals. Proximate analysis of fruit reveals approximately 81 % carbohydrate, 11 % fibre, 2 % protein and fat with rich sources of minerals like magnesium (62 %), calcium (11.8 %), iron (3.4 %), zinc (1.28 %) and copper (0.2 %). Underutilized Tendu fruits are nowadays can be used to develop various value-added products like nectar, jam, powder and bar. The studies regarding the storage of Tendu fruits indicated that they could easily be stored from 6 months to 12 months for each of their storage conditions. Thus, the value-addition of Tendu products improves its commercial demands, stabilises the livelihood of the tribals in terms of economic sustainability and their nutritional requirements. Wine prepared from the fruits of Tendu plant is analysed and it reveals that it contains some anti-oxidant properties, pH 3.12, total sugar of 3.78 g/100 mL, β -carotene 8 μ g/100 mL and total phenolics 0.95 g/100 mL. *D. melanoxylon* is also known as a good fuel wood with a calorific value of heartwood is 5030 kcal/kg and of sapwood, 4957 kcal/kg. Recent study mainly focused on nutritional importance and synthesis of activated carbon by the carbonization of Tendu fruit.

Keywords: β -carotene, carbonation, phenolics, physico-chemical

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INTRODUCTION

Diospyros melanoxylon, an evergreen (moist climate) and deciduous (dry climate), multipurpose, drought and frost hardy medium sized tree/shrub of family Ebenaceae native to most of the states in India and Sri Lanka. It has around 500 species which are distributed over tropical and sub-tropical zone of the world. Arora and Pandey (1996) gave an account of twelve species being found in different agroclimatic zones of India, whereas Zeven and Zhukosky (1975) reported 8 species. Tendu is a rich source of phenols and antioxidants.

The leaves of these trees are commonly used for production of bidi (a traditional indigenous cigarette, which uses the Tendu leaf for rolling instead of general paper cigarette). The Tendu leaves are wrapped with

tobacco to make Indian beedi, (Lal, 2009) which has outsold conventional cigarettes in India. Its trade name is Kendu/Tendu, ebony, also called coromandel ebony. It is one of the essential lesser-known fruits mainly available during summer in the local market of Jharkhand, Orissa, Madhya Pradesh and Chattisgarh state and used as a delicacy. It has a crucial benefaction to the socio-economic condition of the tribals in India (Gupta *et al.*, 2013). Tendu leaves act as an economic backbone to state forest departments providing seasonal employment and income to 7.5 million nomadic tribes in 12 states of the country (Kukreti, 2017). About 3,50,000 tonnes of Kendu leaves worth US \$2,000 million are collected annually from the forests of India, out of which state of Maharashtra contributes 10% share providing income