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**Pharmacognostical Identification of Sri Lankan grown Sandalwood *Santalum album* Linn.**

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**Abstract**

Pharmacognosy is a branch of science that deals with the identity, quality and purity of materials used in medicine. *Santalum album* L. heartwood is a well known raw material used in both Traditional Medical Systems as well as in cosmetic industry in Sri Lanka. Because of the high demand and lengthy maturity period of the heartwood it is prone to be adulterated with sapwood of the same plant and similar looking woody materials. The present study was undertaken to identify genuine Sri Lankan grown sandal wood. Matured heartwood sample of *Santalum album* L. was collected from Ayurveda Drugs Corporation, Nawinna, Maharagama during May 2014. Organoleptic characters, wood microscopical characters of Transverse, Longitudinal cross sections and powder characters were studied under light microscope and diagnostic characters were highlighted. Thin Layer Chromatography of the hexane extract on pre-coated silica gel plate with florescent indicator at 254 nm was studied with Toluene: Ethyl acetate (9.7:0.3) as mobile phase to show non polar compounds of the wood. Colour of the wood was pale brown, taste was bitter and fracture was short. Transverse section of the heart wood consists of thick walled fibres with boarded pits, rarely septate. Parenchyma cells were boarded pitted often filled with simple and compound starch grains. Vessels often solitary and moderate in size, often found with small tracheids. Medullary rays are uni to biseriate at places filled with very few light brownish content and oil drops throughout. Chambered crystals of calcium oxalate and crystal fibres are found in the Radial Longitudinal Section. Powder shows fragments of crystal fibres, isolated tracheids, starch grains embedded in parenchyma, longitudinally cut fragments of medullary rays and oil drops throughout. TLC separation showed 8 spots at Rf 0.17(Purple), 0.21(Purple), 0.34(Purple), 0.39(Purple), 0.43(Purple), 0.71(Purple), 0.76(yellowish pink), 0.82 after derivatisation with vanilline sulfate. Above results indicated that the genuine Sri Lankan grown *Santalum album* L. heartwood or powder can be identified by above Pharmacognostical methods cost effectively in order to minimize adulteration in commerce.

**Keywords:** Sandalwood, microscopical characters, TLC