

# Pharmacognostic Investigations on the Seeds of *Butea Monosperma* (Lam.) Taub

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**Abstract:** *Butea monosperma* is commonly known as Flame of forest, belonging to the family Fabaceae. It is locally called as palas, palash, mutthuga, bijasneha, dhak, khakara, chichra, Bastard Teak, Bengal Kino, Nourouc and is common throughout India, Burma and Ceylon except in very acrid parts. All parts of the plant are traditionally used for curing various diseases and disorders. The plant is traditionally reported to possess astringent, bitter, alterative, aphrodisiac, anthelmintic, antibacterial and anti-asthmatic properties. The Seeds have anthelmintic property especially for roundworms and tapeworms. Hence, the objectives of the present work were pharmacognostic, physicochemical and phytochemical studies of *Butea monosperma* un-ripe and ripe seeds. Macroscopic, microscopic and powder features, phytochemical, physicochemical properties and were determined using standard methods. The Seed flat, kidney-shaped, 2.5 to 4 cm long, 1 to 3 cm wide, seeds coat raddish brown thin waxy, hilum was of simple and oblong, margin was smooth, unripe seed was creamiest whitishgreen in colour while ripe seed was dark brown in colour. The seed; odour, faint; taste, slightly acrid and bitter. The seed is characterized by finely ridged seed coat and palisade like malpighian cells, discontinuous transparent linealucida in upper half of malpighian layers. The microscopic study showed seed was divided into four parts epicarp, mesocarp, testa and endocarp. The epicarp was single layered with thin smooth cuticle layer, polygonal parenchymatous cells. Endocarp consisted of sclerenchyma cells with oil globules; The plasmodesma was yellowish in colour with radially elongated thick walled mucilaginous cells. Palasonin and nitrogenous acidic compounds is present in seeds. Seed also contains isomonospermoside, monospermoside and allophanic acid. The parameters evaluated in physicochemical analysis were all within limits. All the extractive values of un-ripe seed were more than that of ripe seed. The crude powder of un-ripe seeds showed presence of alkaloids, phenols and glycoside while ripe seed showed presence of alkaloids. *Butea monosperma* seeds contain fixed oil, mixed fatty acids, and unsaponifiable matter. The parameters evaluated in this study are the diagnostic features of the unripe and ripe seeds.

**Keywords:** *Butea monosperma*.

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