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COMPARISION OF PHYSICOCHEMICAL PARAMETERS OF DIFFERENT PARTS OF *ARTOCARPUS HETEROPHYLLUS* LAM

DN Serasinghe[1], G Rajkumar[1*], V. Sanmugarajah[2]

[1]*Department of Botany, Faculty of Science, University of Jaffna, Jaffna, Sri Lanka*

[2] *Unit of Siddha Medicine, University of Jaffna, Jaffna, Sri Lanka*

Artocarpus heterophyllus Lam. (Moraceae) is a latex producing erect tree with vast medicinal properties. It is known as Jackfruit, which is one of the commonly consumed foods in Sri Lanka. The present study was performed to compare the physicochemical properties of different parts such as leaves, fruits, seeds and bark of *A. heterophyllus* according to the standard laboratory procedures. The selected parts of *A. heterophyllus* were collected, and their identification was authenticated. The comparative results showed the moisture content of the bark (4.41%), leaves (7.78%) and seeds (9.16%) to be lower than the fruits (38.41%). The pH of 1% w/v and 10% w/v solutions of different parts were between 5.1-6.1 and 4.7-7.1, respectively. Electric conductivity of 1% solutions (953±0.71) and 10% solutions (401.33±0.23) were higher in bark. The solubility percentage of leaves in methanolic (12.2±0.05) and aqueous (7.6±0.37) extraction were higher when compared with seeds in ethanolic (8.6±0.59) extraction. Total ash on a wet basis (5.30±0.93), dry basis (6.48±0.60) and water-soluble ash (3.78±0.18) were found to be higher in bark, while sulphated ash (10.14±0.10) and acid insoluble ash (14.80±0.53) were higher in fruits and leaves respectively. Protein content (1.55±0.74) was higher in fruits whereas fat (9.04±3.69) and carbohydrate (27.87±0.30) contents were higher in seeds. Mineral analysis also found that Na^+, K^+, Ba^+ elements were rich in seeds. It can be concluded that each part of the *A. heterophyllus* can be used in traditional system of medicine and to prepare ready to use functional products and nutraceuticals.

Keywords: *Artocarpus heterophyllus*, Different Parts, Medicinal Plant, Physicochemical, Standardization

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