

# Effect of traditional and modern drying methods on nutrients, total polyphenol and anthocyanin content of *Garcinia indica* rinds

SONI TILARA AND MONALISA GUHATHAKURTA

Drying is one of the methods that are used to preserve fruits and vegetables. The aim of the present research was to estimate the nutritional, total anthocyanin and total polyphenol content in dried kokum (*Garcinia indica*) rind powders using 4 drying treatments *i.e.* sun drying, microwave drying, tray drying and osmotic drying. Results for proximate analysis indicated that sun dried samples had highest and significant retention ( $p < 0.05$ ) in crude protein, crude fat and crude fibre followed by microwave dried samples. Carbohydrate content was retained ( $p < 0.05$ ) in all the drying techniques, where in osmotically dried samples were found to contain the highest carbohydrate content ( $63.505 \pm 0.336$ ) as compared to other three samples. Regarding Anthocyanin content, the highest and the lowest content was found in sundried ( $2.259 \pm 0.122$ g/100g) and microwave dried samples ( $0.142 \pm 0.001$ g/100g), respectively. Further, total polyphenol content was found highest in sundried sample ( $76.266 \pm 0.053$ mg/100g), followed by tray dried ( $54.845$ mg/100g), osmotic dried ( $51.750 \pm 0.210$ mg/100g) and microwave dried samples ( $24.890$ mg/100g). Thus, in the present study sun drying was found as best drying method for preservation of kokum/ *Garcinia indica* as it showed highest retention of nutrients and minimum loss in anthocyanin and polyphenol contents as compared to microwave drying, tray drying and osmotic drying.

**Key Words :** Anthocyanin, Polyphenol, Osmotic drying, Tray drying, Microwave drying, Sundrying

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