

**ANALYSIS OF PHYTOCHEMICAL PROPERTIES OF
PEEL AND PULP FROM CHESTNUT AND HORN
BANANA**

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ABSTRACT

ANALYSIS OF PHYTOCHEMICAL SCREENING OF PEELS AND PULPS FROM CHESTNUT AND HORN BANANA

In this study, The Total Phenolics Content (TPC) and Total Flavonoids Content (TFC) in peel and pulp of chestnut and horn banana extracts were identified and compared. The peel and pulp from chestnut and horn banana were extracted with 95% ethanol by using plant tissue homogenization method. The extracts were then used in qualitative and quantitative analysis for phytochemicals screening. Qualitative analysis were conducted using standard chemical tests which are ferric chloride test and shinoda test. Both tests for all extracts emerged as positive results. In peel and pulp extracts of chestnut banana, dark green and yellowish brown color produced from tested extracts respectively for ferric chloride test while for shinoda test produced reddish brown and brownish yellow in the extracts respectively. On the other hand, peel and pulp extracts of horn banana showed dark green and yellowish brown color respectively for ferric chloride test while, dark red and bright yellow respectively for shinoda test. Next, quantitative analysis for total phenolics and flavonoids contents were determined by using Folin-Ciocalteu assay and Aluminium Chloride Colorimetric assay respectively. Total phenolics content in peel and pulp extracts of chestnut and horn banana ranged from 9.941 ± 0.732717 mg GAE/g to 154.569 ± 0.959669 mg GAE/g. Meanwhile, total flavonoids content in peel and pulp extracts of chestnut banana and horn banana ranged from 5.519 ± 0.353695 mg CEQ/g to 35.146 ± 0.580074 mg CEQ/g. Independent-T test was conducted to compare the phenolics and flavonoids concentration in between peels and pulps of chestnut and horn banana as well as between cultivars in parts. The test revealed that TPC in between peel and pulp from both cultivars was significantly different from each other as well as in TFC. The test also revealed significance differences in TPC and TFC between chestnut and horn banana by pulp-to-pulp and peel-to-peel comparison. Phenolics and flavonoids were extracted the highest in peel extracts from chestnut and horn banana, compared to pulp extracts.