

EFFECTS OF COOKING ON THE DIETARY FIBER AND PHENOLIC CONTENTS OF SELECTED BEANS AND ITS COMBINATIONS

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ABSTRACT

*This study aimed to determine the effects of cooking on the dietary fiber and phenolic contents of chickpea (*Cicer arietinum* L), kidney bean (*Phaseolus vulgaris* L), mung bean (*Vigna radiata* L. R. Wilczek) and its combinations. The beans were cooked using an automatic rice cooker and combinations of beans were done by mixing each of the homogenized beans flour in the ratio of 1:1 (w/w) and 1:1:1 (w/w/w). Resulted showed cooking affects the dietary fiber and total phenolic content (TPC) of beans and its combinations to various extents. Comparing with the raw form, cooking significantly reduced ($p < 0.05$) the insoluble dietary fiber (IDF) of mung bean and chickpea. Combinations of cooked kidney bean, mung bean and chickpea (KMC) resulted in a significantly higher ($P < 0.05$) yield of IDF than all individual beans studied. Cooking causes a reduction or increment in the phenolic contents of beans and its combinations. This study suggests the possibility of using the beans combinations method to increase the dietary fiber and TPC.*

KEYWORDS: Legumes, Beans, Dietary fiber & Total Phenolic Content

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