ABSTRACT

ANALISIS PENGARUH PENGOLAHAN TERHADAP KANDUNGAN FITOSTEROL PADA KACANG TOLO (Vigna unguiculata (L.) Walp.) DENGAN METODE KROMATOGRAFI GAS FID DAN SPEKTROMETRI MASSA

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The aims of this study was to determine the presence of phytosterol compounds in cowpea beans (Vigna unguiculata (L.) Walp.), and to determine the effect of boiling and frying on the phytosterol content of cowpea beans (Vigna unguiculata (L.) Walp). The cowpea beans that have been processed are then extracted with n-hexane, acetone, and chloroform. The extracts were analyzed using TLC, FTIR-ATR, GC-FID, and GC-MS. The GC-FID analysis results between raw, boiled and fried samples identified of cholesterol, campesterol, stigmasterol, and β-sitosterol. Statistical analysis using MANOVA. The results of the GC-MS SIM mode analysis on raw, boiled, and frying cowpea bean extract showed the content of phytosterols, namely cholesterol, campesterol, stigmasterol, and β-sitosterol.

Keywords : Vigna unguiculata (L.) Walp, cooking process, phytosterol, GC-FID, GC-MS