

ABSTRACT

Analysis of Boiling Process Effects of Komak Bean (*Lablab purpureus* L. Sweet) on Phytosterol Content

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Komak bean is a tropical legume that is usually consumed as food by boiling it into water. It can be found in East Java, especially in Sebalong, Sanganom, and Klampok. This study aims to investigate the effects of boiling process in (black and white) komak bean also in Sebalong, Sanganom, and Klampok on the phytosterol content. The sample was extracted using *n*-hexane, acetone, and chloroform. Phytosterol content was analysed in *n*-hexane extract of raw (black and white) komak bean using thin layer chromatography (TLC). The result showed the purple spot in TLC and it proved that komak bean might contain phytosterol. Besides all of the extracts were analysed using gas chromatography-flame ionization detector (GC-FID). Analysis GC-FID showed stigmaterol in raw and boiled (black) komak bean. Raw and boiled (white) komak bean contained stigmaterol while in raw (white) komak bean also contained β -sitosterol. Then the powder of (black and white) komak bean were also analysed using attenuated total reflection-fourier transform infrared (ATR-FTIR) and showed the coefficient correlation of two beans in three area were more than 99%. Two-way ANOVA statistical analysis showed the differences of phytosterol content in raw and boiled (black and white) komak bean also in Sebalong, Sanganom, and Klampok. Boiling process of (black and white) komak bean in Sebalong, Sanganom, and Klampok could affect the phytosterol content.

Keyword: *Komak bean, Lablab purpureus* L. Sweet, Boiling process, Phytosterol, Gas chromatography