PENINGKATAN KANDUNGAN SERAT PANGAN LARUT AIR PADA KORO PEDANG PUTIH (*Canavalia ensiformis* L.DC.) MELALUI PERLAKUAN *AUTOCLAVING*- PENDINGINAN BERULANG

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ABSTRAK

Indonesia memiliki banyak tanaman polong-polongan termasuk koro pedang putih. Koro pedang putih memiliki kandungan protein yang tinggi yang dapat digunakan sebagai bahan sumber protein . Ekstraksi protein dari koro pedang putih menyisakan residu yang kaya serat pangan dan pati. Tujuan penelitian ini adalah untuk menentukan kondisi optimum *autoclaving* dan pendinginan berulang pada serat koro pedang putih untuk memperoleh serat larut yang tertinggi dan menentukan karakteristik fisik dan kimia tepung serat koro pedang putih tinggi serat pangan larut. Tahapan penelitian meliputi pembuatan tepung koro pedang putih, cara memperoleh serat koro pedang putih, deproteinasi tepung serat koro pedang putih, dilanjutkan perlakuan *autoclaving*-pendinginan berulang, serta penentuan sifat fisik dan kimia tepung serat koro pedang putih tinggi serat larut.

Hasil penelitian menunjukkan bahwa kadar serat pangan larut setelah 4 siklus *autoclaving*-pendinginan berulang berturut-turut adalah 2,08 ; 3,22 ; 5,36 ; 5,63 %bk. *Autoclaving*-pendinginan berulang mampu meningkatkan kandungan serat pangan larut pada koro pedang putih dan optimal pada siklus ketiga. Komposisi kimia tepung serat koro pedang putih tinggi serat larut yaitu kadar air 9,52%bb, kadar abu 1,20%bk, kadar lemak 1,79%bk, kadar protein 15,58%bk, kadar serat pangan larut 5,36%bk, kadar serat pangan tidak larut 32,74%bk, total serat pangan 38,10%bk. Karakteristik fisik tepung serat koro pedang putih tinggi serat larut yaitu memiliki nilai *bulk density* 0,6449g/ml, *water holding capacity* 5,0450g/g, *oil holding capacity* 2,0724g/g, *swelling capacity* 8,1163ml/g.

Kata kunci : Koro pedang putih, serat pangan, *autoclaving*-pendinginan

INCREASE THE SOLUBLE DIETARY FIBER CONTENT ON WILD JACK BEAN (*Canavalia ensiformis* L.DC.) THROUGH REPEATED AUTOCLAVING-COOLING TREATMENT

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ABSTRACT

Indonesia has a lot of leguminous crops including wild jack bean. Wild jack bean has high protein content that can be used as a protein source. Extraction of protein from wild jack bean leaving residue which is rich in dietary fiber and starch. The aim of this study are to determine the optimal conditions repeated autoclaving-cooling on wild jack bean dietary fiber to obtain the highest soluble dietary fiber and to determine the physical and chemical characteristics in the highest wild jack bean soluble dietary fiber flour. The phases of this study are produce jack bean flour, obtaining wild jack bean dietary fiber, deproteinasi of dietary fiber wild jack bean flour, continued by repeated autoclaving-cooling treatment, and determination the physical and chemical properties in the highest soluble dietary fiber wild jack bean flour.

The result showed that soluble dietary fiber content after four cycles of autoclaving cooling are 2,08 ; 3,22 ; 5,36 ; 5,63 %db. Repeated autoclaving cooling can increase soluble dietary fiber content on wild jack bean (*Canavalia ensiformis* L.DC) and optimal in the third cycle. Chemical composition on dietary fiber jack bean flour with high soluble dietary fiber content have water content 9,52%wb, ash 1,20%db, fat 1,79%db, protein 15,58%db, soluble dietary fiber 5,36%db, insoluble dietary fiber 32, 74%db, and total dietary fiber 38,10%db. The physical characteristics on dietary fiber wild jack bean flour with high soluble dietary fiber content have bulk density values 0,6449g / ml, water holding capacity 5,0450g / g, oil holding capacity 2,0724g / g, swelling capacity 8,1163ml / g.

Keyword : Wild jack bean, dietary fiber, autoclaving-cooling