

RINGKASAN

Koro pedang (*Canavalia ensiformis L.*) berpotensi sebagai sumber protein untuk bahan pangan pengganti kedelai karena keseimbangan asam aminonya yang baik. Salah satu upaya pemanfaatan koro pedang adalah dengan pembuatan *chips* koro pedang. Akan tetapi, saat ini masyarakat belum memanfaatkannya secara optimal karena karakteristik fisiknya yang mempunyai kulit luar dan daging kacang yang sangat keras serta adanya zat antigizi. Perlakuan metode pengupasan menggunakan NaOH dan CaCO₃ serta *hot water blanching* merupakan upaya dalam mengurangi permasalahan tersebut. Penelitian ini bertujuan untuk: 1) Mengetahui pengaruh perbedaan metode pengupasan kacang koro dengan larutan NaOH dan CaCO₃, 2) Menetapkan waktu *hot water blanching* yang optimal, 3) Menetapkan proporsi tepung koro dan tapioka yang sesuai untuk pembuatan *chips*, 4) Menetapkan kombinasi perlakuan terbaik terhadap sifat kimia, fisikokimia dan sensori *chips* yang dihasilkan.

Rancangan percobaan yang digunakan adalah Rancangan Acak Kelompok (RAK). Faktor yang diteliti yaitu metode pengupasan (M): M1= larutan NaOH 3% panas selama 7 menit, M2= perendaman larutan CaCO₃ 15% selama 1 jam, lama *hot water blanching* (H): H1= 30 menit dan H2= 40 menit serta proporsi tepung koro-tapioka b/b (P): P1= 60 : 40, P2= 70 : 30, P3= 80 : 20. Perlakuan disusun secara faktorial dengan 12 kombinasi perlakuan dan 3 kali ulangan sehingga diperoleh 36 unit percobaan.

Hasil penelitian menunjukkan bahwa metode pengupasan dengan larutan CaCO₃ menghasilkan kadar air yang lebih rendah dan tekstur *chips* lebih renyah dibanding pengupasan dengan larutan NaOH. Lama *hot water blanching* yang baik adalah 30 menit yang menghasilkan kadar air dan absorpsi minyak yang lebih rendah pada *chips* koro pedang. Proporsi tepung koro-tapioka yang menghasilkan tekstur renyah, flavor enak dan tingkat kesukaan yang tinggi adalah 60:40% b/b. Kombinasi perlakuan terbaik *chips* koro pedang adalah M2H1P1 (pengupasan dengan larutan CaCO₃, *hot water blanching* 30 menit, dan proporsi tepung koro-tapioka 60:40 b/b) yang memiliki absorpsi minyak 7,77 %, derajat pengembangan 26,82 %, kadar air 8,31 %bb, kadar abu 4,02%bb (4,38%bk), kadar protein 11,89%bb (12,97%bk), lemak 0,92%bb (1%bk), karbohidrat (*by difference*) 74,86%bb (81,64%bk), nilai rasa kacang 3,32 (agak terasa), tekstur 4,13 (renyah), flavor 3,87 (enak), dan kesukaan 3,84 (suka).

SUMMARY

Jackbean (Canavalia ensiformis L.) has a high potency as a source of protein as an alternative to soy protein in food because of its amino acid content. One of the way to use jackbean is by making jackbean chips. However, today people still do not use it optimally because of its physical characteristics that have very hard skin and the existence of antinutrient substances become obstacles in the process to use jackbean in food. Peeling with NaOH and CaCO₃ and hot water blanching is an effort to reduce the problem. This research aims to: 1) Know the effect of different methods peeling with NaOH and CaCO₃ solution 2) Establish optimum hot water blanching time 3) Establish suitable proportion jackbean flour and tapioca flour for the manufacture of chips 4) Establish the best combination of treatments against chemical, physicochemical and sensory qualities of chips.

The experimental design used was Randomized Block Design (RBD). The factors studied were peeling method (M): M1 = 3% hot NaOH solution for 7 minutes, M2 = soaking in 15% CaCO₃ solution for 1 hour, hot water blanching period (H): H1 = 30 minutes and H2 = 40 minutes and weight ratio of tapioca flour and jackbean flour (P) = P = 60: 40, P2 = 70: 30, P3 = 80: 20. The treatments were arranged factorially with 12 treatment combinations and 3 replications so that 36 experimental units were obtained.

The results showed that chips made of jackbean which peeled with CaCO₃ solution had a lower water content and crisper texture than chips made of jackbean which peeled with NaOH solution. Hot water blanching of 30 minutes resulted in lower moisture content and oil absorption in the jackbean chips. The proportion of jackbean flour-tapioca flour which had a good crispy texture, flavor and high preferences was 60: 40% w/w. The result of evaluation of data with effectiveness index showed the best treatment combination of jackbean chips was M2H1P1 (peeling with CaCO₃ solution, hot water blanching 30 minutes, and proportion of jackbean flour-tapioca flour 60:40 w/w). M2H1P1 Jackbean chips had an oil absorption of 7.77%, 26.82% development grade, water content of 8.31% wb, ash content of 4.02% wb (4.38% db), protein content of 11.89% wb (12.97% db), fat 0.92% wb (1% db), carbohydrate (by difference) 74.86% wb (81.64% db), peanut flavor 3.32 (slightly noticeable), texture 4.13 (crunchy), flavor 3.87 (delicious), and likes 3.84 (like).