RINGKASAN

Daging sandung lamur termasuk daging kualitas III yang mempunyai tekstur daging cenderung kasar, sehingga agar kualitas daging menjadi lebih empuk dapat dilakukan proses restrukturisasi menjadi pangan olahan, salah satunya yaitu patties burger. Penambahan enzim transglutaminase menyebabkan proses restrukturisasi menjadi lebih efektif. Tujuan dari penelitian ini adalah: 1) Mengkaji pengaruh perlakuan mekanis yang berbeda terhadap karakteristik fisik, kimia dan sensori patties daging restrukturisasi, 2) Mengkaji pengaruh kadar enzim *transglutaminase* yang berbeda terhadap karakteristik fisik, kimia dan sensori patties daging sandung lamur, 3) Mengkaji pengaruh interaksi perlakuan mekanis dan kadar enzim transglutaminase yang berbeda terhadap karakteristik fisik dan kimia patties daging sandung lamur 4) Menetapkan perlakuan mekanis terbaik patties burger berdasarkan sifat fisikokimia dan sensori yang dihasilkan.

Penelitian ini terdiri dari dua tahap dengan rancangan percobaan yang digunakan yaitu Rancangan Acak Lengkap Faktorial, dengan 6 kombinasi perlakuan dengan jumlah ulangan sebanyak 4 kali. Penelitian tahap pertama, daging sandung lamur diberikan perlakuan mekanis (digiling dan dicincang) dan penambahan enzim *transglutaminase* (0,5%; 0,75%; 1%). Penelitian tahap kedua terdiri atas analisis elektroforesis, profil asam lemak, profil asam amino dan TPC *(Total Plate Count)*.

Hasil penelitian tahap satu menunjukkan bahwa : 1) Patties daging sandung lamur yang digiling memiliki nilai parameter *hardness, cohesiveness, springiness* yang lebih tinggi, sementara daging sandung lamur yang dicincang memiliki nilai WHC,a_w dan kadar protein yang lebih tinggi 2) Patties daging sandung lamur dengan pemberian enzim transglutaminase sebesar 1% memiliki parameter nilai *hardness, cohesivenees, springiness* dan kadar protein lebih tinggi 3) Interaksi perlakuan pada patties sandung lamur yang digiling dengan penambahan enzim *transglutaminase* 1% memiliki nilai parameter *hardness, cohesiveness* dan *springiness* tertinggi, 4) Kombinasi perlakuan daging sandung lamur giling dengan penambahan enzim transglutaminase sebesar 1% menurut analisis De Garmo merupakan kombinasi perlakuan terbaik berdasarkan sifat fisikokimia dan sensori. Hasil penelitian tahap dua menunjukkan bahwa nilai berat molekul, profil asam amino, profil asam lemak tidak berbeda antara produk terbaik dan produk kontrol. Analisis TPC menunjukkan bahwa sampel produk terbaik memiliki nilai TPC yang lebih tinggi dibandingkan produk kontrol.

Kata kunci : daging sandung lamur, *transglutaminase*, restrukturisasi

SUMMARY

Brisket meat is classified as quality III meat with a meat texture that tends to be rough so that in order to improve the quality of the meat to make it more tender a restructuring process can be carried out into processed food, namely burger patties. The restructuring process becomes more effective with the addition of the transglutaminase enzyme at several concentration levels. The aims of this study were 1) to examine the effect of different mechanical treatments on the physical, chemical and sensory characteristics of restructured meat patties, 2) to study the effect of different transglutaminase enzyme levels on the physical, chemical and sensory characteristics of restructured meat patties, 3) to study the effect of treatment interactions mechanical and different levels of transglutaminase enzymes on the physical, chemical and sensory characteristics of restructuring meat patties 4) Determine the best treatment of burger patties based on the physicochemical and sensory properties produced.

This study consisted of two stages with the experimental design used, namely Completely Randomized Factorial Design, with 6 treatment combinations and four repetitions were carried out. The first phase of the research consisted of physicochemical and sensory analysis, then determining the best treatment combination using De Garmo's effectiveness analysis. The second phase of the research consisted of electrophoretic analysis using SDS PAGE, fatty acid profiles, amino acid profiles and TPC.

The results of the first phase research show that; 1) The brisket patties given the mechanical treatment of grinding have parameter values of hardness, cohesiveness, springiness which are higher than those given the mechanical treatment of chopped, while the chopped brisket has a higher WHC,aw value and protein content 2) Patties of brisket meat with transglutaminase enzyme concentration of 1% have the parameters values of hardness, cohesiveness, springiness and protein content higher than that given a lower enzyme concentration. 3) The brisket patties in the treatment interaction on ground meat with the addition of 1% transglutaminase enzyme had the highest hardness, cohesiveness and springiness parameters compared to the other treatment combinations. 4) Based on the analysis of the De Garmo effectiveness index, the combination of ground brisket with the addition of 1% transglutaminase enzyme can be an effective combination to improve the texture profile and physicochemical properties of brisket burger patties. The results of the second phase of the research on electrophoretic analysis showed amino acids with a molecular weight of 60 kDa, 45 kDa, 39 kDa, 35 kDa, 26 kDa, 17 kDa. In the analysis of fatty acids and amino acids, there was no statistically significant difference between the best product and the control product. While the TPC analysis shows that the best product sample has a higher TPC value than the controlproduct.

Keywords: brisket meat, transglutaminase, restructured