

## PENGARUH LEVEL *FILLER* TERHADAP PERUBAHAN BERAT, KUALITAS FISIK DAN MIKROSTRUKTUR BAKSO DAGING KAMBING DAN DOMBA

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### ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh level *filler* terhadap kualitas fisik dan mikrostruktur bakso daging kambing dan domba. Bahan-bahan yang digunakan dalam pembuatan bakso adalah daging kambing dan domba, garam, bawang merah goreng, merica, bawang putih, misonyal, tepung tapioka dan air es. Perlakuan penambahan *filler* dengan level 10, 20, dan 30% dilakukan sebanyak 3 kali replikasi. Parameter yang diuji yaitu perubahan berat, kualitas fisik (nilai pH, daya ikat air, keempukan) dan mikrostruktur. Data perubahan berat diukur dari selisih berat adonan bakso dengan berat bakso yang telah direbus. Data hasil penelitian dianalisis dengan analisis variansi Rancangan Acak Lengkap pola faktorial dan perbedaan yang nyata dilanjutkan dengan *Duncan's New Multiple Ranges Test*. Mikrostruktur bakso diobservasi dengan perbesaran mikroskop 40x menggunakan Hematoxylin-Eosin sebagai metode analisis. Hasil penelitian menunjukkan bahwa perbedaan level *filler* dapat meningkatkan nilai perubahan berat, keempukan dan daya ikat air ( $P < 0,05$ ). Pada perbedaan jenis daging terdapat perbedaan nilai pada perubahan berat, pH dan keempukan ( $P < 0,05$ ). Hasil interaksi antar jenis daging dan *filler* terdapat pada perubahan berat dan daya ikat air. Berdasarkan penelitian yang dilakukan, disimpulkan bahwa kualitas bakso daging kambing lebih baik dibandingkan bakso daging domba dan bakso dengan level *filler* 20% memiliki kualitas yang lebih baik dibandingkan level *filler* yang berbeda.

(Kata kunci : Bakso, Daging kambing, Daging domba, Tepung tapioka, *Filler*, Perubahan berat, Kualitas fisik, Mikrostruktur )

## **THE EFFECT OF FILLER LEVEL ON WEIGHT CHANGES, PHYSICAL QUALITY AND MICROSTRUCTURE OF GOAT AND LAMB MEATBALLS**

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### **ABSTRACT**

This study was conducted to determine the effect of filler level on the physical and microstructure quality of goat and lamb meatballs. The ingredients used in making meatballs were goat meat and lamb meat, salt, fried shallots, pepper, garlic, flavoring, tapioca, and ice water. The filler level of tapioca were 10, 20, and 30% with 3 replications. The parameters tested were weight changes, physical quality (pH, water holding capacity, tenderness) and microstructure. Weight changes data were measured from the weight difference of meatball dough with the weight of boiled meatballs. The results of the research data were analyzed by Complete Randomized Design analysis of factorial patterns and significant differences followed by Duncan's New Multiple Ranges Test. Meatball microstructure was observed with 40x magnifications microscope and analysed by using Hematoxylin-Eosin. The results showed that the differences in tapioca level had a significant effect ( $P < 0.05$ ) on weight changes, tenderness and binding capacity of water. Different types of meat, there were significant effect ( $P < 0.05$ ) on weight changes, pH, and tenderness. The results of interactions between type of meat and fillers are found in weight changes and water holding capacity. Based on the research, it was concluded that the quality of goat meatballs was better than lamb meatballs and meatballs with 20% filler level had better quality than different filler levels.

(Keys words : Meatball, Goat meat, Lamb meat, Tapioca flour, Filler, Weight changes, Physical quality, Microstructure)