PENGARUH JENIS OTOT (*Longissimus dorsi* dan *Triceps brachii)* DENGAN LEVEL *FILLER* TEPUNG TAPIOKA TERHADAP KUALITAS FISIK, MIKROSTRUKTUR DAN *COOKING YIELD* BAKSO SAPI

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh jenis level *filler*, dan interaksi keduanya terhadap kualitas fisik, mikrostruktur dan *cooking yield* bakso sapi. Bahan yang digunakan adalah daging sapi (otot *Longissimus dorsi* dan *Triceps brachii*), tepung tapioka (10, 15, dan 20%), dan bumbu-bumbu (garam, bawang putih, merica, STPP dan es batu). Analisis statistik uji kualitas fisik dan *cooking yield* menggunakan Rancangan Acak Lengkap (RAL) dengan uji *Two Way Anova* dan jika terdapat perbedaan nyata dilanjutkan dengan *Duncan's New Multiple Ranges Test* (DMRT). Hasil penelitian menunjukkan bahwa jenis otot mempengaruhi kualitas fisik (nilai pH dan keempukan), mikrostruktur, dan *cooking yield* bakso sapi ($P<0,05$). Level penambahan *filler* yang berbeda mempengaruhi kualitas fisik (nilai pH), mikrostruktur dan *cooking yield* bakso sapi ($P<0,05$). Interaksi antara jenis otot dengan level penambahan *filler* yang berbeda mempengaruhi kualitas fisik (nilai pH), mikrostruktur dan *cooking yield* bakso sapi ($P<0,05$). Uji mikrostruktur menggunakan mikroskop dan dianalisis secara deskriptif. Hasil penelitian menunjukkan bahwa penggunaan jenis otot *Triceps brachii* memiliki kualitas fisik (pH, daya ikat air, keempukan, cooking yield) dan mikrostruktur lebih baik daripada otot Longissimus dorsi. Level filler 20% memiliki kualitas fisik (pH, daya ikat air, keempukan, cooking yield) dan mikrostruktur yang lebih baik daripada level filler 10% dan 15%. Interaksi jenis otot *Triceps brachii* dan level filler 20% menghasilkan produk bakso dengan kualitas terbaik.

Kata kunci: Bakso sapi, tepung tapioka, kualitas fisik, mikrostruktur

THE EFFECT OF MUSCLE TYPES (*Longissimus dorsi* and *Triceps brachii)* AND TAPIOCA FLOUR FILLER LEVELS TO THE PHYSIC QUALITY, MICROSTRUCTURAL, AND COOKING YIELD OF BEEF MEATBALLS

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ABSTRACT

This study aims to determine the effect of muscle type, filler level, and their interactions on physic quality, microstructure and cooking yield of beef meatballs. The ingredients used were beef (Longissimus dorsi and Triceps brachii muscle), tapioca flour (10%, 15%, and 20%), and spices (salt, garlic, pepper, sodium tripolyphosphate/STPP, and ice cubes). Statistic analysis test of physic quality and cooking yield used Completely Randomized Design (CRD) with Two Way Anova test and if showed significant difference followed by Duncan's New Multiple Range Test (DMRT). Microstructural test used a microscope and analyzed descriptively. The results showed that muscle types affect on the physic quality (pH value and tenderness), microstructure and cooking yield of beef meatballs (P<0,05). The different addition level of filler affected on the physic quality (pH value), microstructure and cooking yield of beef meatballs (P<0,05). interaction between muscle types and different addition level of filler affected on the physic quality (pH value), microstructure and cooking yield of beef meatballs (P<0,05). Microstructure test using a microscope and analyzed descriptively. The results showed that the use of the Triceps brachii muscle had better physic qualities (pH, air holding capacity, tenderness, cooking yield) and microstructure than the Longissimus dorsi muscle. The filler level of 20% has better physic quality (pH, air holding capacity, tenderness, cooking yield) and microstructure than the filler level of 10% and 15%. The use of Triceps brachii muscle type and a filler level of 20% produces the best beef meatball output as seen from the physic quality and microstructure.

Keywords: Beef Meatball, tapioca flour, physic quality, microstructure