

PENGARUH LAMA PENYIMPANAN BEKU TERHADAP KUALITAS FISIK DAGING SAPI PERANAKAN ONGOLE

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INTISARI*

Penelitian ini bertujuan untuk mengetahui pengaruh lama penyimpanan beku terhadap kualitas fisik daging sapi Peranakan Ongole (PO). Penelitian ini dilaksanakan pada 11 Mei 2022 sampai dengan 9 Agustus 2022. Penelitian ini dilakukan di Laboratorium Nutrisi dan Teknologi Hasil Ternak, Prodi Peternakan, Fakultas Agroindustri, Universitas Mercu Buana Yogyakarta. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) pola searah dengan 5 perlakuan lama penyimpanan beku kontrol (P1), 1 minggu (P2), 2 minggu (P3), 3 minggu (P4), dan 4 minggu (P5), dengan masing-masing perlakuan terdapat 3 ulangan. Masing-masing ulangan terdiri dari 500 gram otot *Longissimus dorsi*. Data yang diperoleh dianalisis menggunakan analisis variansi (ANOVA) dan apabila diperoleh hasil yang berbeda nyata, dilanjutkan dengan analisis *Duncan's New Multiple Range Test* (DMRT). Variabel pengamatan meliputi pH, Daya Ikat Air (DIA), Susut Masak (*Cooking Loss*), dan Keempukan daging. Hasil penelitian menunjukkan rerata pH berturut-turut dengan lama penyimpanan beku adalah 5,77; 6,5; 6,33; 5,87; dan 5,9. Rerata Daya Ikat Air (DIA) berturut-turut adalah 35,44%; 37,66%; 30,54%; 30,12%; dan 39,69%. Rerata Susut Masak (*Cooking Loss*) berturut-turut adalah 39,89%; 32,22%; 32,11%; 31,89%; dan 23,22%. Rerata Keempukan berturut-turut adalah 1,10 kg/cm²; 1,22 kg/cm²; 1,31 kg/cm²; 1,10 kg/cm²; dan 1,14 kg/cm². Hasil analisis variansi menunjukkan pH, Daya Ikat Air (DIA), dan susut masak berbrda tidak nyata ($P > 0,05$), sedangkan keempukan daging berbeda nyata ($P < 0,05$), terhadap lama penyimpanan beku. Berdasarkan hasil penelitian dapat disimpulkan bahwa kualitas fisik daging sapi Peranakan Ongole (PO) dengan lama penyimpanan beku selama 4 minggu mempunyai kualitas fisik relatif sama.

Kata Kunci : Daging, kualitas fisik, sapi Peranakan Ongole, pembekuan.

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THE EFFECT OF FROZEN STORAGE TIME ON MEAT PHYSICAL QUALITY OF ONGOLE CROSSBREED

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ABSTRACT*

This study aims to determine the effect of the length of frozen storage on the physical quality of Ongole Breed beef. This research was conducted from May 11, 2022 to August 9, 2022. This research was conducted at the Laboratory of Nutrition and Animal Products Technology, Animal Husbandry Study Program, Faculty of Agroindustry, Mercu Buana University, Yogyakarta., Faculty of Agroindustry, University of Mercu Buana. This study used a Complete Randomized Design pattern in the direction of 5 control frozen storage duration treatments (P1), 1 week (P2), 2 weeks (P3), 3 weeks (P4), and 4 weeks (P5), with each treatment having 3 repeats. Each test consists of 500 grams of *Longissimus dorsi* muscle. The data obtained were analyzed using variance analysis (ANOVA) and if significantly different results were obtained, followed by *duncan's New Multiple Range Test* (DMRT) analysis. Observation variables include pH, Water Holding Capacity (WHC), Cooking Loss, and Tenderness of meat. The results showed that the average pH in a row with the duration of freezing storage was 5.77; 6.5; 6.33; 5.87; and 5.9. The average water binding power (DIA) in a row is 35.44%; 37.66%; 30.54%; 30.12% ; and 39.69%. The average cooking loss in a row is 39.89%; 32.22%; 32.11%; 31.89% ; and 23.22%. The average consecutive Tenderization is 1.10 kg/cm²; 1.22 kg/cm² ; 1.31 kg/cm² ; 1.10 kg/cm²; and 1.14 kg/cm². The results of the variance analysis showed that pH, Water Holding Capacity (WHC), and cooking shrinkage had an unreal effect (P>0.05), while meat tenderness had a real effect (P<0.05) with a long frozen storage on the length of frozen storage. Based on the results of the study, it can be concluded that the physical quality of Peranakan Ongole (PO) beef with 4 weeks of frozen storage has relatively the same physical quality.

Keywords: Meat, physical quality, ongole peranakan cattle, freezing.

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