

PENGARUH SUBSTITUSI *FILLER* TEPUNG UBI JALAR UNGU (*Ipomoea batatas poiret*) TERHADAP KUALITAS FISIK, SENSORIS DAN MIKROSTRUKTUR NUGGET DAGING KUDA

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh substitusi tepung terigu dengan tepung ubi jalar ungu terhadap kualitas fisik, sensoris dan mikrostruktur *nugget* daging kuda. Penelitian ini dilakukan dengan 5 perlakuan dengan 5 kali ulangan. Setiap ulangan dilakukan menggunakan 3 *nugget*. Perlakuan substitusi terigu dengan tepung ubi jalar ungu yaitu 0, 25, 50, 75, dan 100%. Variabel yang diuji dalam penelitian ini adalah kualitas fisik, sensoris, dan mikrostruktur. Penelitian ini menggunakan Rancangan Acak Lengkap pola searah. Data yang diperoleh dilakukan analisis variansi (ANOVA) kemudian apabila data berbeda nyata akan diuji lanjut dengan *Duncan's Multiple Range Test* (DMRT). Mikrostruktur *chicken nugget* dibuat dengan metode Hematoksilin-Eosin (HE), kemudian dilihat dengan mikroskop perbesaran 400 kali dan dianalisis secara deskriptif. Berdasarkan hasil penelitian diperoleh bahwa uji pH, daya ikat air mengalami penurunan dan tidak berpengaruh nyata ($P > 0,05$) terhadap penambahan tepung ubi ungu, sedangkan pada uji keempukan dan uji sensoris yang meliputi warna, rasa, daya terima dan kekenyalan berpengaruh nyata ($P < 0,05$) terhadap penambahan ubi ungu. Mikrostruktur *nugget* daging kuda tanpa substitusi tepung ubi ungu memiliki struktur yang lebih baik dibandingkan *nugget* dengan substitusi tepung ubi ungu. Kesimpulan yang didapat adalah substitusi tepung ubi ungu yang terbaik adalah substitusi tepung ubi jalar ungu sebesar 25%. Substitusi tepung ubi jalar ungu meningkatkan nilai keempukan *nugget* daging kuda sedangkan *nugget* daging kuda tanpa substitusi tepung ubi ungu memiliki mikrostruktur lebih baik.

Kata Kunci: Daging kuda, Tepung ubi ungu, Sifat fisik, Mikrostruktur, Sensoris

THE EFFECT OF PURPLE SWEET POTATOES (*Ipomoea batatas poiret*) FLOUR SUBSTITUTION FILLER ON PHYSICAL, SENSORICAL AND MICROSTRUCTURAL QUALITIES OF HORSE MEAT NUGGET

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ABSTRACT

This study aimed to determine the effect of substitution of wheat flour with purple sweet potato flour on physical, sensorical and microstructural qualities of horse meat nuggets. This research was conducted with 5 treatments with 5 replications. Each replication was performed using 3 nuggets. The substitution treatments for flour with purple sweet potato flour were 0, 25, 50, 75, and 100%. The variables tested in this study were physical, sensorical, and microstructural qualities. This study used a completely randomized design with a unidirectional pattern. The data obtained was analyzed of variance (ANOVA) then if the data was significantly different, it would be further tested with Duncan's Multiple Range Test (DMRT). The microstructure of chicken nuggets was made using the Hematoxylin-Eosin (HE) method, then viewed with a 400 magnification microscope and analyzed descriptively. Based on the results of the study, it was found that the pH test, water holding decreased and had no significant effect ($P > 0.05$) on the addition of purple sweet potato flour, while the tenderness and sensory tests which included color, taste, acceptability and elasticity had a significant effect ($P < 0.05$) on the addition of purple sweet potato. The microstructure of horse meat nuggets without purple sweet potato flour substitution has a better structure than nuggets with purple sweet potato flour substitution. The conclusion was that the best substitute for purple sweet potato flour is a substitute for purple sweet potato flour by 25%. Substitution of purple sweet potato flour increased the tenderness value of horse meat nuggets, while horse meat nuggets without substituting purple sweet potato flour had better microstructure.

Keywords: Horse meat, Purple sweet potato flour, Physical properties, Microstructure, Sensory