

EXPERIMENT OF MIXING CHICKEN CLAWS AND TOFU TOWARDS PHYSICAL CHARACTERISTIC, ORGANOLEPTIC CHARACTERISTIC AND CALCIUM LEVELS OF CHICKEN NUGGET

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ABSTRACK

Background: 89.4% of school children ages 6-12 years only consume calcium <15% RDA of breakfast.² Whereas calcium is very necessary especially for body growth.³ The source of calcium can be obtained from fresh and processed food, for example, it can be obtained from chicken claws and tofu. Both foodstuff are easily obtained in the market with low prices and high nutritional containing mainly calcium, so it could be used to make a food product in the form of nuggets.

Objective: To know the influence of variation of mixing chicken claws and tofu towards physical characteristic, organoleptic characteristic and calcium levels of chicken nuggets.

Methods: The research was quasi experimental with simple random design. The research was carried out in march until april 2018. The research sample was chicken nuggets with the four treatments (A, B, C, D). The organoleptic test was done by 25 panelists from Poltekkes Kemenkes Yogyakarta. The data were analyzed using kruskall wallis and continued with mann-whitney to assess organoleptic and one-way anova for levels of calcium.

Result: There was an effect of variation of chicken claws and tofu mixture against physical characteristic, organoleptic characteristic, calcium levels, and nutritional economic value of chicken nuggets. The more chicken claws and tofu added, the smell was more typical chicken claws and tofu as well as the texture became rough, while color and flavor remained the same which was white bone color and savory taste. The result showed the influence on color ($p=0.006$), the smell ($p=0.007$), the flavor ($p=0.000$) and the texture ($p=0.000$). The most preferred color of chicken nugget was on treatment B, while in terms of smell, flavor, and texture was on treatment C. The more chicken claws and tofu added, the higher levels of calcium and the lower (cheap) nutritional economic value of chicken nuggets.

Conclusion: There is an effect of variation of chicken claws and tofu mixture against physical characteristic, organoleptic characteristic, calcium levels, and nutritional economic value of chicken nuggets.

Keywords: Mixing chicken claws and tofu, physical characteristic, organoleptic characteristic, calcium levels, chicken nuggets.

EKSPERIMEN PENCAMPURAN CEKER AYAM DAN TAHU TERHADAP SIFAT FISIK, SIFAT ORGANOLEPTIK DAN KADAR KALSIMUM *NUGGET* AYAM

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ABSTRAK

Latar Belakang: Sebanyak 89,4% anak sekolah usia 6-12 tahun hanya mengonsumsi kalsium <15% AKG dari sarapan.² Padahal kalsium sangat diperlukan tubuh terutama untuk pertumbuhan.³ Sumber kalsium banyak diperoleh dari bahan pangan dan hasil olahannya, misalnya dapat diperoleh dari ceker ayam dan tahu. Kedua bahan makanan ini mudah diperoleh di pasaran dengan harga yang murah serta mengandung gizi yang tinggi terutama kalsium, sehingga dapat dimanfaatkan untuk membuat produk makanan berupa *nugget*.

Tujuan: Mengetahui pengaruh variasi campuran ceker ayam dan tahu terhadap sifat fisik, sifat organoleptik dan kadar kalsium *nugget* ayam.

Metode: Jenis penelitian adalah eksperimental semu dengan Rancangan Acak Sederhana (RAS). Penelitian dilaksanakan pada bulan Maret hingga April 2018. Sampel penelitian adalah *nugget* ayam dengan 4 perlakuan (A, B, C, D). Uji organoleptik dilakukan oleh panelis berjumlah 25 orang yang berasal dari mahasiswa Poltekkes Kemenkes Yogyakarta. Analisis data menggunakan *Kruskall Wallis* dilanjutkan *Mann-Whitney* untuk uji organoleptik dan *One way Anova* untuk kadar kalsium.

Hasil: Ada pengaruh variasi campuran ceker ayam dan tahu terhadap sifat fisik, sifat organoleptik, kadar kalsium, dan nilai ekonomi gizi *nugget* ayam. Semakin banyak penambahan jumlah adonan ceker ayam dan tahu, aroma semakin khas ceker ayam dan tahu serta tekstur menjadi kasar, sedangkan warna dan rasa tetap sama yaitu warna putih tulang dan rasa gurih. Hasil penelitian menunjukkan adanya pengaruh pada warna ($p=0.006$), aroma (0.007), rasa (0.000), dan tekstur (0.000). Warna *nugget* ayam paling banyak disukai panelis adalah pada perlakuan B, sedangkan dari segi aroma, rasa, dan tekstur adalah perlakuan C. Semakin banyak penambahan jumlah adonan ceker ayam dan tahu, maka semakin tinggi kadar kalsium dan semakin rendah (murah) nilai ekonomi gizi *nugget* ayam.

Kesimpulan: Ada pengaruh variasi campuran ceker ayam dan tahu terhadap sifat fisik, sifat organoleptik, kadar kalsium, dan nilai ekonomi gizi *nugget* ayam.

Kata kunci: Pencampuran ceker ayam dan tahu, sifat fisik, sifat organoleptik, kadar kalsium, *nugget* ayam