

PENGARUH PENAMBAHAN TEPUNG BAWANG DAYAK (*Eleuntherine palmifolia* L. Merr.) TERHADAP KUALITAS NUGGET AYAM BROILER SELAMA PENYIMPANAN

INTISARI

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Penelitian ini bertujuan untuk mengetahui pengaruh penambahan tepung bawang dayak (*Eleuntherine palmifolia* L. Merr.) dan lama penyimpanan terhadap total mikroba, angka peroksida, kualitas fisik, kimia, dan sensoris nugget ayam broiler. Bahan-bahan yang digunakan untuk pembuatan nugget yaitu daging ayam broiler, tepung tapioka, tepung terigu, telur, bumbu-bumbu, air es, dan tepung bawang dayak. Variabel yang diamati meliputi *total plate count* (TPC), angka peroksida, kualitas fisik yang meliputi nilai pH, warna, tekstur dan daya ikat air (DIA), kualitas kimia yang meliputi kadar air, protein, dan lemak, serta kualitas sensoris yang meliputi; warna, rasa, tekstur, aroma dan daya terima. Rancangan percobaan yang digunakan adalah Rancangan Acak Lengkap (RAL) pola faktorial 4x3 dengan 4 kali pengulangan. Faktor pertama yaitu penambahan tepung bawang dayak dengan level 0, 1, 1,5, dan 2% dari total adonan nugget dan faktor kedua yaitu lama penyimpanan dalam refrigerator bersuhu $\pm 4^{\circ}\text{C}$ selama 0, 7, dan 14 hari. Apabila terjadi perbedaan nyata dilanjutkan dengan uji *Duncan new Multiple Range Test* (DMRT). Data hasil pengujian sensoris dianalisis menggunakan analisis non parametrik dengan uji *Friedman*. Penambahan tepung bawang dayak sangat nyata ($P < 0,01$) menghambat pertumbuhan mikroba dan menghambat terjadinya oksidasi. Rerata nilai TPC dan angka peroksida pada nugget tanpa penambahan bawang dayak yaitu $4,38 \pm 0,72$ (log CFU/g) dan $5,43 \pm 0,69$ (ml eq/kg). Rerata nilai TPC dan angka peroksida nugget dengan penambahan bawang dayak 2% yaitu $3,48 \pm 0,30$ (log CFU/g) dan $4,26 \pm 0,33$ (ml eq/kg). Penambahan tepung bawang dayak hingga 2% meningkatkan redness (a^*) dan DIA, menurunkan lightness (L^*), yellowness (b^*), dan kualitas sensoris, namun tidak memengaruhi nilai pH, tekstur, dan kualitas kimia nugget ayam. Hasil uji kualitas sensoris nugget ayam hanya dapat diterima hingga level penambahan 1,5%. Selama penyimpanan 14 hari terjadi peningkatan angka peroksida dan TPC serta penurunan nilai pH dan DIA, tetapi tidak mempengaruhi L^* , a^* , b^* , tekstur, kualitas kimia dan kualitas sensoris nugget. Terdapat interaksi pada hasil total mikroba, pH, serta DIA. Berdasarkan hasil dapat disimpulkan bahwa penambahan tepung bawang dayak 1,5% adalah penambahan paling baik pada nugget ayam dan dapat memperpanjang masa simpan sampai dengan 14 hari pada suhu refrigerator.

Kata kunci : Kualitas nugget, Nugget ayam, Tepung bawang dayak, Lama penyimpanan

EFFECT OF ADDITION OF DAYAK ONION POWDER (*Eleuntherine palmifolia* L. Merr) ON BROILER CHICKEN NUGGET QUALITY DURING STORAGE

ABSTRACT

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The aim of research was to determine the effect of adding dayak onion (*Eleuntherine palmifolia* L. Merr) powder on broiler chicken nugget quality during storage. The ingredients used for making nuggets are broiler chicken meat, tapioca flour, wheat flour, eggs, spices, ice water, and dayak onion powder. This study used a completely randomized design with 4x3 factorial. The first factor was dayak onion powder (0%, 1%, 1.5%, and 2%) then the second factor was storage period (0, 7, and 14 day) in refrigerator temperature. Total plate count (TPC), peroxide value, physical quality, and chemical quality data were collected and analyzed using analysis of variance. Data of sensory quality were collected and analyzed using Friedman test. It was continued to Duncan's Multiple Range Test (DMRT) if the treatment indicated significant effect at the probability level of 1%. The result showed that the additional of dayak onion powder significantly inhibited microbial growth and oxidation. The mean of TPC and peroxide value in nuggets without the addition of dayak onion powder is 4.38 ± 0.72 (log CFU/g) and 5.43 ± 0.69 (ml eq/kg). The mean of TPC and peroxide value of nuggets with the addition of 2% dayak onion powder is 3.48 ± 0.30 (log CFU/g) and 4.26 ± 0.33 (ml eq/kg). Addition of dayak onion powder up to 2% increased ($P < 0.01$) the color redness (a^*) and water holding capacity (WHC). It also decreased ($P < 0.01$) the color lightness (L^*), yellowness (b^*), and sensory quality, while pH, texture, and chemical quality were not affected. The sensory quality results were only acceptable up to 2%. Storage time increased was decreased ($P < 0.01$) the pH and WHC but increased ($P < 0.01$) TPC and peroxide value, while L^* , a^* , b^* , texture, chemical and sensory quality not affected. There was an interaction in the result of TPC, pH, and WHC. The addition of 1.5% dayak onion powder was recommended to increase the broiler chicken nugget quality during storage without decreased the sensory quality of nugget.

Keyword: Chicken nugget, nugget quality, dayak onion powder, storage period,