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**Pengaruh Penambahan Infusa Bayam Merah (Amaranthus tricolor) terhadap Aktivitas Antioksidan, Sifat
Fisik, dan Sensoris Sosis Ayam Petelur Afkir**
Arfi Oktafida, Dr. Ir. Rio Olympias Sujarwanta, S.Pt., M.Sc., IPM., ASEAN Eng.
Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

PENGARUH PENAMBAHAN INFUSA BAYAM MERAH (*Amaranthus tricolor*) TERHADAP AKTIVITAS ANTIOKSIDAN, SIFAT FISIK, DAN SENSORIS SOSIS AYAM PETELUR AFKIR

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan infusa bayam merah (*Amaranthus tricolor*) terhadap aktivitas antioksidan, sifat fisik (pH, daya ikat air, *hardness, springiness, gumminess, chewiness, lightness, redness,*dan *yellowness*), dan sensoris (warna aroma, tekstur, rasa, dan daya terima) pada sosis ayam petelur afkir. Bahan yang digunakan dalam pembuatan sosis ayam petelur afkir adalah daging ayam petelur afkir, infusa bayam merah, tepung tapioka, bawang putih, lada bubuk, garam, ketumbar, STPP, susu skim, air es, dan selongsong. Penelitian ini dilakukan dengan penambahan infusa bayam merah pada empat perlakuan, yaitu 0%, 0,5%, 1%, dan 1,5% dari total adonan. Setiap perlakuan dilakukan pengulangan sebanyak 4 kali pengulangan. Aktivitas antioksidan dan sifat fisik dianalisis menggunakan *One Way Anova*, apabila terdapat perbedaan yang nyata maka dilanjut dengan uji *Duncan's Multiple Range Test* (DMRT). Data pengujian sensoris yang diperoleh dianalisis menggunakan uji *Statistic Non Parametric* dari *Kruskal Wallis Test.* Hasil penelitian menunjukkan penambahan infusa bayam merah dengan level 1,5% dapat meningkatkan aktivitas antioksidan dengan rata-rata 79,08±1,41, peningkatan sifat fisik warna nilai *redness* 7,52±0,28, *yellowness* 17,81±0,74 dan uji sensoris warna dan daya terima berturut-turut 3,45±0,78 dan 4,13±0,91. Kesimpulan yang diperoleh penambahan infusa bayam merah dengan level 1,5% menunjukkan hasil terbaik pada peningkatan aktivitas antioksidan, warna *redness, yellowness,* warna sensori dan daya terima.

Kata Kunci: Sosis Ayam Petelur Afkir, Bayam Merah (*Amaranthus tricolor*), Aktivitas Antioksidan, Sifat Fisik, Sensoris

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THE EFFECT OF RED SPINACH (*Amaranthus tricolor*) INFUSION ADDITION ON ANTIOXIDANT ACTIVITY, PHYSICAL, AND SENSORY PROPERTIES OF CHICKEN SAUSAGE MADE FROM CULLED LAYER CHICKEN

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ABSTRACT

This study aimed to determine the effect of adding red spinach (*Amaranthus tricolor*) infusion on antioxidant activity, physical properties (pH, water-holding capacity, hardness, springiness, gumminess, chewiness, lightness, redness, and yellowness), and sensory properties (color, aroma, texture, taste, and acceptability) in culled layer chicken sausage. The ingredients used in making of chicken sausage from culled layer chicken include culled layer chicken meat, red amaranth infuse, tapioca flour, garlic, ground pepper, salt, cumin, STPP, skim milk, cold water, and casings. The study was conducted with adding red spinach infusion at four levels: 0%, 0.5%, 1%, and 1.5% of the total dough. Each treatment was repeated four times. Antioxidant activity and physical test were analyzed using One Way Anova, followed by Duncan's Multiple Range Test if significant differences were observed. Sensory quality data were analyzed using the Kruskal-Wallis nonparametric test. The results showed that addition of 1,5% red spinach infusion provided the best outcomes, with an average increase in antioxidant activity of 79.08±1.41, and physical properties analysis redness of 7.52±0.28, yellowness of 17.81±0.74 and sensory testing showed reduced color and acceptability content at 3.45±0.78 and 4.13±0.91. In conclusion the addition of red amaranth infusion at different levels can enhance antioxidant activity, redness, yellowness, sensory color, and acceptability in culled layer chicken sausage.

Keywords: Culled Layer Chicken Sausage, Red Amaranth (*Amaranthus tricolor*), Antioxidant Activity, Physical Properties, Sensory