

**PENGARUH SUBSTITUSI EKSTRAK BUNGA TELANG
(*Clitoria ternatea*) TERHADAP AKTIVITAS ANTIOKSIDAN
DAN SIFAT KIMIA BAKSO DAGING AYAM DENGAN
LAMA PENYIMPANAN BERBEDA**

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh substitusi ekstrak bunga telang (*Clitoria ternatea*) dan lama penyimpanan dalam *refrigerator* terhadap sifat kimia dan aktivitas antioksidan bakso daging ayam. Perlakuan pada penelitian ini adalah substitusi ekstrak bunga telang (*Clitoria ternatea*) sebagai antioksidan dengan 4 level substitusi yaitu (P₁)=0%; (P₂)=0,25%; (P₃)=0,5% dan (P₄)=0,75%. Variabel yang diamati berupa aktivitas antioksidan dan sifat kimia (Kadar air, kadar lemak dan kadar protein). Bakso daging ayam disimpan dalam *refrigerator* kemudian dilakukan uji antioksidan dan sifat kimia pada minggu ke 0,1,2 dan 3. Setiap level perlakuan diulang sebanyak 3 kali. Data aktivitas antioksidan dan sifat kimia yang telah diperoleh dianalisis statistik menggunakan Analisis Variansi Rancangan Acak Lengkap (RAL) pola faktorial. Perbedaan rerata yang nyata dari perlakuan diuji dengan *Duncan's Multiple Range Test* (DMRT). Hasil penelitian menunjukkan substitusi ekstrak bunga telang mampu meningkatkan pada aktivitas antioksidan, kadar air, kadar protein dan kadar lemak secara berurutan pada aktivitas antioksidan 14,09;24,87;29,31 dan 40,70%, pada kadar air 62,07; 63,76; 63,78 dan 64,67%, kadar protein 18,62;18,58;18,75 dan 19,08% serta kadar lemak 2,34;2,46;2,56; dan 2,60%. Bakso ayam dengan substitusi ekstrak bunga telang pada penyimpanan tiga minggu memperoleh hasil yang mampu menurunkan aktivitas antioksidan, kadar air, kadar protein dan kadar lemak secara berurutan yaitu aktivitas antioksidan 45,39; 31,90; 17,80; dan 13,89%, kadar air 65,72; 64,33; 62,56 dan 60,67%, kadar protein 19,93; 18,96; 18,26 dan 17,88% serta kadar lemak 2,49; 2,41; 2,52 dan 2,56%. Kesimpulan dari penelitian yang telah dilakukan adalah substitusi ekstrak bunga telang pada bakso ayam dengan lama penyimpanan selama tiga minggu pada suhu *refrigerator* yang terbaik terdapat pada level substitusi (P₄)=0,75% minggu pertama dimana meningkatkan aktivitas antioksidan, kadar air, kadar protein dan kadar lemak.

Kata kunci: bakso daging ayam, ekstrak bunga telang (*Clitoria ternatea*), penyimpanan *refrigerator*, aktivitas antioksidan, sifat kimia.

**EFFECT OF TELANG FLOWER EXTRACT SUBSTITUTION
(*Clitoria ternatea*) ON ANTIOXIDAN ACTIVITY DAN
CHEMICAL QUALITY OF CHICKEN MEATBALLS
WITH DIFFERENT STORAGE TIME**

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ABSTRACT

This research aims to determine the effect of substitution of butterfly pea flower extract (*Clitoria ternatea*) and storage time in the refrigerator on the chemical properties and antioxidant activity of chicken meatballs. The treatment in this study was substitution of butterfly pea flower extract (*Clitoria ternatea*) as an antioxidant with 4 levels of substitution, namely (P1)=0%; (P2)=0.25%; (P3)=0.5% and (P4)=0.75%. The variables observed were antioxidant activity and chemical properties (water content, fat content and protein content). The chicken meatballs were stored in the refrigerator and then tested for antioxidants and chemical properties at weeks 0, 1, 2 and 3. Each level of treatment was repeated 3 times. Data on antioxidant activity and chemical properties that were obtained were statistically analyzed using a factorial pattern of Completely Randomized Design (CRD) Analysis of Variance. Real mean differences between treatments were tested using Duncan's Multiple Range Test (DMRT). The results showed that substitution of butterfly pea flower extract was able to increase antioxidant activity, water content, protein content and fat content, respectively, with antioxidant activity of 14.09; 24.87; 29.31 and 40.70%, with water content of 62.07; 63.76; 63.78 and 64.67%, protein content 18.62; 18.58; 18.75 and 19.08% and fat content 2.34; 2.46; 2.56; and 2.60%. Chicken meatballs with the substitution of butterfly pea flower extract in three weeks of storage obtained results that were able to reduce antioxidant activity, water content, protein content and fat content respectively, namely antioxidant activity 45.39; 31.90; 17.80; and 13.89%, water content 65.72; 64.33; 62.56 and 60.67%, protein content 19.93; 18.96; 18.26 and 17.88% and fat content 2.49; 2.41; 2.52 and 2.56%. The conclusion from the research that has been carried out is that the substitution of butterfly pea flower extract for chicken meatballs with a storage period of three weeks at refrigerator temperature is best at the substitution level (P4) = 0.75% in the first week which increases antioxidant activity, water content, protein content and fat level.

Keywords: chicken meatballs, telang flower (*Clitoria ternatea*) extract, refrigerator storage, antioxidant activity, chemical properties.