

**PENGARUH PENAMBAHAN TEPUNG UBI JALAR UNGU  
(*Ipomoea batatas* L.) TERHADAP AKTIVITAS  
ANTIOKSIDAN DAN KUALITAS  
FISIK NUGGET AYAM**

**Natasya Artamevia Putri  
21/482967/PT/09112**

**INTISARI**

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan tepung ubi jalar ungu (*Ipomoea batatas* L.) terhadap aktivitas antioksidan dan kualitas fisik pada nugget ayam. Bahan yang digunakan dalam pembuatan nugget ayam yaitu daging ayam broiler, tepung tapioka, tepung ubi jalar ungu, telur, garam, bawang putih, merica, pala, ketumbar, dan air es. Penelitian dilakukan dengan penambahan tepung ubi jalar ungu (*Ipomoea batatas* L.) sebanyak 0%; 5%; 10%; 15%; 20% dari total adonan. Variabel yang diamati pada penelitian ini meliputi aktivitas antioksidan dan kualitas fisik berupa uji pH, uji daya ikat air, dan uji profil tekstur. Analisis data untuk pengujian aktivitas antioksidan dan kualitas fisik dilakukan menggunakan analisis variansi pola searah (ANOVA) dan uji lanjutan menggunakan *Duncan's Multiple Range Test* (DMRT). Hasil penelitian menunjukkan penambahan tepung ubi jalar ungu pada nugget ayam memberikan pengaruh yang nyata ( $P < 0,05$ ) terhadap aktivitas antioksidan, nilai pH, *hardness*, dan *cohesiveness*, namun tidak berpengaruh nyata ( $P > 0,05$ ) terhadap daya ikat air, *springiness*, *gumminess*, dan *chewiness*. Nilai aktivitas antioksidan pada kisaran 26,31-79,42. Nilai pH pada kisaran 6,17-6,53. Nilai daya ikat air pada kisaran 60,36-57,13. Nilai *hardness* pada kisaran 25,49-38,87. Nilai *cohesiveness* pada kisaran 0,26-0,43. Nilai *springiness* pada kisaran 74,29-78,47. Nilai *gumminess* pada kisaran 822,95-1.082,52. Nilai *chewiness* pada kisaran 633,52-801,12. Berdasarkan penelitian yang telah dilakukan dapat disimpulkan bahwa penambahan tepung ubi jalar ungu sebanyak 15% memiliki aktivitas antioksidan yang tinggi dan kualitas fisik yang baik.

**Kata kunci:** Aktivitas antioksidan, Kualitas fisik, Nugget ayam, Tepung ubi jalar ungu

## EFFECT OF PURPLE SWEET POTATO FLOUR (*Ipomoea batatas* L.) ADDITION ON THE ANTIOXIDANT ACTIVITY AND PHYSICAL QUALITIES OF CHICKEN NUGGETS

Natasya Artamevia Putri  
21/482967/PT/09112

### ABSTRACT

This research aims to determine the effect of the addition of purple sweet potato flour (*Ipomoea batatas* L.) on antioxidant activity and physical quality in chicken nuggets. The ingredients used in making chicken nuggets are broiler meat, tapioca flour, purple sweet potato flour, eggs, salt, garlic, pepper, nutmeg, coriander, and ice water. The research was conducted by adding purple sweet potato flour (*Ipomoea batatas* L.) as much as 0%; 5%; 10%; 15%; 20% of the total dough. The variables observed in this study included antioxidant activity and physical qualities in the form of pH test, water binding capacity test, and texture profile test. Data analysis for antioxidant activity and physical qualities testing was conducted using unidirectional pattern analysis of variance (ANOVA) and further tests using Duncan's Multiple Range Test (DMRT). The results showed that the addition of purple sweet potato flour to chicken nuggets had a significant effect ( $P < 0.05$ ) on antioxidant activity, pH value, hardness, and cohesiveness, but no significant effect ( $P > 0.05$ ) on water binding capacity, springiness, gumminess, and chewiness. Antioxidant activity values were in the range of 26.31-79.42. The pH value was in the range of 6.17-6.53. Water binding capacity value in the range of 60.36-57.13. Hardness value in the range of 25.49-38.87. Cohesiveness value in the range of 0.26-0.43. Springiness value in the range of 74.29-78.47. Gumminess value in the range of 822.95-1,082.52. Chewiness value in the range of 633.52-801.12. Based on the research conducted, it can be concluded that the addition of 15% purple sweet potato flour has high antioxidant activity and good physical qualities.

**Keywords:** Antioxidant activity, Chicken nuggets, Physical qualities, Purple sweet potato flour