

## **PENGARUH SUBSTITUSI *FILLER* TEPUNG TAPIOKA DENGAN TEPUNG UBI JALAR PUTIH TERHADAP KUALITAS KIMIA, FISIK, DAN SENSORIS SOSIS KAMBING**

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### **INTISARI**

Penelitian ini bertujuan untuk mengetahui pengaruh substitusi *filler* tepung tapioka dengan tepung ubi jalar putih terhadap kualitas kimia, fisik, dan sensoris sosis kambing. Level substitusi *filler* menggunakan tepung ubi jalar putih yaitu 0, 5, 10, 15, dan 20% dengan tiga kali pengulangan untuk masing-masing perlakuan. Parameter yang diamati yaitu kualitas kimia (kadar air, protein dan lemak), kualitas fisik (nilai pH, daya ikat air, dan keempukan), dan kualitas sensoris (warna, aroma, rasa, tekstur, dan daya terima). Data kualitas kimia dan fisik dianalisis menggunakan ANOVA Rancangan Acak Lengkap (RAL) pola searah. Data kualitas sensoris dianalisis menggunakan analisis non-parametrik *Kruskal and Wallis Test*. Perbedaan rerata diuji menggunakan *Duncan's New Multiple Range Test*. Hasil analisis statistik menunjukkan bahwa level 10 dan 20% berpengaruh nyata terhadap penurunan kadar air. Level 5, 10, 15, dan 20% berpengaruh nyata terhadap peningkatan kadar protein. Kadar lemak meningkat pada level 15 dan 20% ( $P < 0,05$ ). Substitusi *filler* tepung ubi jalar putih meningkatkan nilai DIA dan menurunkan keempukan, meskipun nilai pH tidak berpengaruh nyata. Warna, tekstur, dan daya terima sosis kambing menurun pada level 15 dan 20% ( $P < 0,05$ ), untuk aroma dan rasa tidak berpengaruh nyata. Kesimpulan dari penelitian ini adalah tepung ubi jalar putih dapat digunakan sebagai substitusi *filler* hingga level 10% karena dapat meningkatkan kadar protein, lemak, dan nilai DIA, serta tidak menurunkan kualitas sensoris.

(Kata kunci: Sosis kambing, Tepung ubi jalar putih, Kualitas kimia, Kualitas fisik, Kualitas sensoris)

**EFFECT OF FILLER SUBSTITUTION OF TAPIOCA FLOUR WITH  
WHITE SWEET POTATO FLOUR ON CHEMICAL, PHYSICAL,  
AND SENSORY QUALITY OF GOAT SAUSAGE**

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**ABSTRACT**

This study aimed to determine the effect of filler substitution of tapioca flour with white sweet potato flour on chemical, physical, and sensory qualities of goat sausage. The treatment of filler substitution levels for white sweet potato flour were 0, 5, 10, 15, and 20% with three repetitions for each test. The parameters observed were chemical quality (water, protein, and fat content), physical quality (pH value, water holding capacity, and tenderness), and sensory quality (color, aroma, taste, texture, and acceptability). Chemical and physical quality data were analyzed using ANOVA Completely Randomized Design (CRD). Sensory quality data was analyzed using the non-parametric Kruskal and Wallis Test. Mean differences were tested using Duncan's New Multiple Range Test. The results of statistical analysis showed that the level of 10 and 20% had a significant effect on decreasing in water content. The 5, 10, 15, and 20% levels had a significant effect on increasing protein content. Fat content increased at the 15 and 20% levels ( $P < 0.05$ ). Substitution of white sweet potato flour filler increased the WHC value and decreased tenderness, although the pH value had no significant effect. Color, texture, and acceptability of goat sausage decreased at the 15 and 20% levels ( $P < 0.05$ ), for aroma and taste has no significant effect. Based on the research, it can be concluded that white sweet potato flour can be used as filler substitution on goat meat up to 10% level which increase protein, fat content, and WHC value, and did not reduce sensory qualities.

(Keywords: Goat sausage, White sweet potato flour, Chemical quality, Physical quality, Sensory quality)