

## PENGARUH SUBSTITUSI *FILLER* TEPUNG TAPIOKA DENGAN TEPUNG TALAS (*Colocasia esculenta*) TERHADAP KUALITAS FISIK DAN SENSORIS SOSIS AYAM BROILER

Alif Rama Yogiyantara  
19/442945/PT/08077

### INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh substitusi *filler* tepung tapioka dengan tepung talas terhadap kualitas fisik dan sensoris sosis ayam broiler. Bahan yang digunakan dalam pembuatan sosis antara lain daging ayam broiler, tepung tapioka, tepung talas, air es, susu skim, garam, minyak sayur, STPP, merica, pala, bawang putih, dan selongsong plastik. Sosis dibuat sebanyak 25 adonan untuk 5 perlakuan dan 5 kali pengulangan pada uji kualitas fisik, dengan berat 384 g per adonan, sisanya dipotong 2 cm sebanyak 30 buah per perlakuan untuk diuji sensoris dengan 1 pengulangan saja. Persentase *filler* yang digunakan sebesar 15,63% dari total adonan. Perlakuan yang diterapkan pada penelitian ini yaitu penggunaan tepung tapioka dan tepung talas dengan yang terbagi menjadi 100%:0% (P0), 99%:1% (P1), 98%:2% (P2), 97%:3% (P3), dan 96%:4% (P4) dari total *filler*. Uji yang dilakukan pada penelitian ini terdiri dari uji kualitas fisik yang terdiri dari uji nilai pH, uji daya ikat air, uji profil tekstur, dan uji warna, serta uji kualitas sensoris yang terdiri dari parameter berupa warna, tekstur, rasa, aroma, dan daya terima. Data uji kualitas fisik dianalisis menggunakan analisis variansi dengan Rancangan Acak Lengkap pola searah dan dilanjutkan dengan Uji *Duncan's New Multiple Range Test*. Data hasil pengujian sensoris dianalisis dengan menggunakan Kruskal Wallis. Hasil penelitian menunjukkan bahwa substitusi *filler* tepung tapioka dengan tepung talas berpengaruh nyata ( $P < 0,05$ ) terhadap daya ikat air dan profil tekstur sosis. Daya ikat air meningkat sebesar 1,95% (P1), 5,83% (P2), 7,32 (P3), dan 9,97% (P4) dibandingkan kontrol. Nilai *hardness*, *gumminess*, dan *chewiness* berturut-turut meningkat sebesar 116,23%, 103,63%, 273,75% (P1); 175,97%, 134,98%, 317,16%, (P2); 211,26%, 171,85%, 368,54%, (P3); dan 266,92%, 199,87%, 466,34% (P4) dibandingkan kontrol, sedangkan *springiness* menurun sebesar 3,44% (P1), 7,81% (P2), 12,59% (P3), dan 19,12% (P4) dibandingkan kontrol. Hasil penelitian tidak menunjukkan pengaruh yang nyata ( $P > 0,05$ ) terhadap nilai pH, warna, dan kualitas sensoris sosis. Kualitas sosis paling baik berada pada level substitusi 99%:1% (P1) karena memiliki nilai profil tekstur terbaik, penambahan paling efisien, dan parameter kualitas lainnya tidak berbeda dengan kontrol, dengan nilai daya ikat air 43,76%, *hardness* 4634,85 g, *gumminess* 2065,07, *springiness* 71,47%, dan *chewiness* 1543,05.

(Kata kunci: sosis ayam broiler, tepung tapioka, tepung talas, kualitas fisik, kualitas sensoris)

## **THE SUBSTITUTION EFFECT OF TAPIOCA FLOUR WITH TARO FLOUR (*Colocasia esculenta*) AS FILLER ON PHYSICAL AND SENSORY QUALITY OF BROILER SAUSAGE**

**Alif Rama Yogiyantara**  
**19/442945/PT/08077**

### **ABSTRACT**

This study aims to determine the effect of tapioca flour filler substitution with taro flour on the physical and sensory qualities of broiler chicken sausage. The materials used in the sausage gets made include broiler chicken meat, tapioca flour, taro flour, ice water, skim milk, salt, vegetable oil, STPP, pepper, nutmeg, garlic, and plastic sleeves. Sausages were made of 25 doughs for 5 treatments and 5 repetitions in the physical quality test, with a weight of 384 g per dough, the remaining 2 cm was cut as many as 30 pieces per treatment for sensory testing with only 1 repetition. The percentage of filler used was 15.63% of the total dough. The treatment applied in this study was the use of tapioca flour and taro flour with a ratio that was divided into 100%:0% (P0), 99%:1% (P1), 98%:2% (P2), 97%:3% (P3), and 96%:4% (P4) of total filler. The tests carried out in this study consisted of a physical quality test consisting of a pH value test, a water holding capacity test, a texture profile test, and a color test, as well as a sensory quality test consisting of parameters such as color, texture, taste, aroma, and performance accept. Physical quality test data were analyzed using analysis of variance with a one-way Completely Randomized Design followed by Duncan's New Multiple Range Test. Sensory test results data were analyzed using Kruskal Wallis. The results showed that the filler substitution of tapioca flour with taro flour had a significant effect ( $P < 0.05$ ) on the sausage's water-holding capacity and texture profile. Water holding capacity increased by 1.95% (P1), 5.83% (P2), 7.32 (P3), and 9.97% (P4) compared to control. The values of hardness, gumminess, and chewiness increased by 116.23%, 103.63%, 273.75% (P1); 175.97%, 134.98%, 317.16%, (P2); 211.26%, 171.85%, 368.54%, (P3); and 266.92%, 199.87%, 466.34% (P4) compared to control, while springiness decreased by 3.44% (P1), 7.81% (P2), 12.59% (P3), and 19.12% (P4) compared to control. The results showed no significant effect ( $P > 0.05$ ) on the pH value, color, and sensory quality of the sausages. The best quality of sausage is at the substitution level of 99%:1% (P1) because it has the best texture profile value, the most efficient addition, and other quality parameters are the same as the control, with a water holding capacity of 43.76%, hardness 4634.85 g, gumminess 2065.07, springiness 71.47%, and chewiness 1543.05.

(Key words: broiler chicken sausage, tapioca flour, taro flour, physical quality, sensory quality)