

**PENGARUH SUBSTITUSI *FILLER* TEPUNG TAPIOKA DENGAN
TEPUNG OAT (*Avena sativa* L.) TERHADAP KUALITAS
KIMIA DAN SENSORIS BAKSO
AYAM PETELUR AFKIR**

**Ghafira Sabila Mitayani
20/455743/PT/08423**

INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh substitusi *filler* tepung tapioka dengan tepung oat (*Avena sativa* L.) terhadap kualitas kimia dan sensoris bakso ayam petelur afkir. Bahan yang digunakan meliputi daging ayam petelur afkir, tepung tapioka, tepung oat, bawang putih, bawang merah, gula, garam, merica, penyedap rasa, es batu, dan STPP. Parameter uji kualitas kimia yaitu kadar air, kadar protein, kadar lemak, kadar abu, kadar serat pangan, kadar karbohidrat, dan estimasi indeks glikemik. Parameter uji kualitas sensoris yaitu warna, aroma, tekstur, rasa, dan daya terima. Data kualitas kimia dianalisis dengan *One Way Anova* dan uji lanjut DMRT serta *Kruskal Wallis* dan uji lanjut *Mann-Whitney* untuk data kualitas sensoris. Faktor perlakuan substitusi tepung oat terdiri dari lima level meliputi 0, 25, 50, 75, dan 100%. Hasil substitusi tepung oat terhadap kualitas kimia berpengaruh signifikan ($P < 0,05$) pada kadar protein, kadar lemak, kadar serat pangan, kadar karbohidrat, dan indeks glikemik, dengan kadar protein level 0% sebesar 11,71% dan level 100% sebesar 15,64%, kadar lemak level 0% sebesar 2,24% dan 100% sebesar 4,32%, kadar serat pangan level 0% sebesar 3,91% dan level 100% sebesar 5,53%, kadar karbohidrat level 0% sebesar 16,64% dan level 100% sebesar 8,52%, dan estimasi indeks glikemik level 0% sebesar 64,65 dan level 100% sebesar 50,44. Hasil substitusi tepung oat terhadap kualitas sensoris berpengaruh signifikan ($P < 0,05$) terhadap warna, aroma, tekstur, rasa, dan daya terima, dengan hasil terbaik pada level 50% dengan nilai tekstur 4,39, rasa 4,56, dan daya terima 4,28. Kesimpulan penelitian ini bakso ayam petelur afkir dengan substitusi tepung oat terhadap kualitas kimia dan sensoris mendapatkan hasil terbaik pada level 50%.

Kata kunci: Bakso, Ayam Petelur Afkir, Tepung Tapioka, Tepung Oat, Kualitas Kimia, Kualitas Sensoris

THE EFFECT OF OAT FLOUR (*Avena sativa* L.) AS A SUBSTITUTION OF TAPIOCA FLOUR ON CHEMICAL AND SENSORY QUALITY OF CULLED LAYING HENS MEATBALL

Ghafira Sabila Mitayani
20/455743/PT/08423

ABSTRACT

This study aims to determine the effect of substituting tapioca flour filler with oat flour (*Avena sativa* L.) on the chemical and sensory quality of meatballs from pastured laying hens. The ingredients used included meat from pastured laying hens, tapioca flour, oat flour, garlic, shallots, sugar, salt, pepper, flavoring, ice cubes, and STPP. Chemical quality test parameters are moisture content, protein content, fat content, ash content, dietary fiber content, carbohydrate content, and estimated glycemic index. Sensory quality test parameters were color, aroma, texture, taste, and acceptability. Chemical quality data were analyzed by *One Way Anova* and *DMRT* further test and *Kruskal Wallis* and *Mann-Whitney* further test for sensory quality data. The oat flour substitution treatment factor consisted of five levels including 0, 25, 50, 75, and 100%. The results of oat flour substitution on chemical quality had a significant effect ($P < 0.05$) on protein content, fat content, dietary fiber content, carbohydrate content, and glycemic index, with protein content level 0% 11.71% and level 100% 15.64%, fat content level 0% 2.24% and level 100% 4.32%, dietary fiber content level 0% 3.91% and level 100% 5.53%, carbohydrate content level 0% 16.64% and level 100% 8.52%, and estimated glycemic index level 0% 64.65 and level 100% 50.44. The results of oat flour substitution on sensory quality had a significant effect ($P < 0.05$) on color, aroma, texture, taste, and acceptability, with the best results in 50% with a texture value of 4,39, taste 4,56, and acceptability 4,28. The conclusion of this study is that meatballs of culled laying hens with oat flour substitution on chemical and sensory quality get the best results in 50%.

Keywords: Meatballs, Culled Laying Hens, Tapioca Flour, Oat Flour, Chemical Quality, Sensory Quality