

# **Pengaruh Substitusi *Filler* Tepung Edamame Terhadap Kualitas Fisik Bakso Daging Itik Petelur Afkir**

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## **ABSTRAK**

Penelitian ini bertujuan untuk mengetahui pengaruh substitusi *filler* tepung edamame terhadap kualitas fisik bakso daging bakso itik petelur afkir. Materi penelitian terdiri dari daging itik petelur afkir, tepung tapioka, tepung edamame, putih telur, bawang putih, bawang merah, garam, lada, monosodium glutamat, sodium tripolifosfat, dan es. Perlakuan substitusi *filler* tepung edamame yaitu P0 (0%), P1 (5%), P2 (10%), P3 (15%), dan P4 (20%) dari total *filler*. Setiap perlakuan terdiri dari lima replikasi. Parameter yang diuji yaitu nilai pH, daya ikat air, susut masak, dan keempukan bakso. Data hasil uji kualitas fisik dianalisis dengan analisis variansi rancangan acak lengkap pola searah. Perbedaan rerata diuji dengan uji *Duncan's New Multiple Range Test*. Hasil penelitian menunjukkan bahwa substitusi *filler* tepung edamame sampai level 20% berpengaruh sangat nyata ( $P < 0,01$ ) terhadap nilai pH, daya ikat air, susut masak, dan keempukan terhadap bakso daging itik petelur afkir. Substitusi *filler* tepung edamame pada level 20% merupakan bakso daging itik afkir terbaik dengan nilai daya ikat air tertinggi 35,16%, susut masak terendah 18,18%, dan keempukan tertinggi 10,46 mm/g/10 detik.

**Kata Kunci:** Bakso, Daging Itik Petelur Afkir, *Filler*, Kualitas Fisik, Tepung Edamame

***The Effect of Edamame Flour Filler Substitution on the Physical Quality of Unproductive Duck Meatballs***

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***ABSTRACT***

This research conducted to determine the effect of edamame flour filler substitution on the physical quality of unproductive duck meatballs. The research material consisted of unproductive duck meat, tapioca flour, edamame flour, egg white, garlic, onion, monosodium glutamate, sodium tripolyphosphate, pepper, salt, and ice. The treatments substitution filler of edamame flour were P0 (0%), P1 (5%), P2 (10%), P3 (15%), and P4 (20%) from total filler. Each treatment consists of five replications. The parameters tested were pH value, water holding capacity, cooking loss, and tenderness of meatballs. The data of physical quality test results were analyzed by analyzing the variance of complete random designs in a unidirectional pattern. Mean differences were tested with the Duncan's New Multiple Range Test. The results showed that the substitution of edamame flour filler up to the level of 20% had a very significant effect ( $P < 0,01$ ) on pH value, water holding capacity, cooking loss, and tenderness of meatballs. The substitution of edamame flour *filler* at level of 20% was the best rejected duck meatballs with the highest water holding capacity of 35,16%, lowest cooking loss of 18,18%, and highest tenderness of 10,46 mm/g/10 seconds.

***Keywords:*** *Meatball, Unproductive Duck Meat, Filler, Physical Quality, Edamame Flour*