

**PENGARUH PENAMBAHAN TEPUNG TULANG
IKAN TUNA (*Thunnus albacares*) TERHADAP
KARAKTERISTIK *COOKIES* BERBAHAN
DASAR TEPUNG TERIGU DAN TEPUNG BIJI
ALPUKAT (*Persea americana* Mill)**

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PENGARUH PENAMBAHAN TEPUNG TULANG IKAN TUNA (*Thunnus albacares*) TERHADAP KARAKTERISTIK *COOKIES* BERBAHAN DASAR TEPUNG TERIGU DAN TEPUNG BIJI ALPUKAT (*Persea americana* Mill)

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ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan tepung tulang ikan tuna terhadap karakteristik *cookies* berbahan dasar tepung terigu dan tepung biji alpukat. Rancangan yang digunakan pada penelitian ini Adalah rancangan acak lengkap (RAL) dengan 5 perlakuan dan 3 ulangan. Data penelitian di analisis secara statistik menggunakan *Analysis of Variance* (ANOVA) dan selanjutnya dilakukan analisis *Duncan's New Multiple Range Test* (DNMRT) pada taraf 5%. Hasil penelitian ini menunjukkan bahwa penambahan tepung tulang ikan tuna terhadap *cookies* berpengaruh nyata terhadap analisis fisik, analisis kimia yang meliputi kadar air, kadar abu, kadar protein, kadar lemak, kadar karbohidrat dan kadar kalsium serta organoleptik aroma, rasa, tekstur dan angka lempeng total, namun tidak berpengaruh nyata terhadap analisis kadar serat kasar dan organoleptik warna *cookies*. Perlakuan terbaik *cookies* yang dihasilkan adalah *cookies* perlakuan C (penambahan tepung tulang ikan tuna 20%) dengan nilai kekerasan $368,35 \text{ N/cm}^2$, kadar air 2,65%, kadar abu 8,86%, kadar protein 9,89%, kadar lemak 21,20%, kadar karbohidrat 57,40%, serat kasar 1,94%, kalsium 6,81%, angka lempeng total $1,28 \times 10^3$ dan organoleptik warna 3,84 (suka), aroma 3,56 (suka), rasa 3,96 (suka), dan tekstur 4,40 (suka).

Kata kunci: *Cookies*; kalsium; tepung tulang ikan tuna; tepung biji alpukat.

THE EFFECT OF ADDING TUNA FISH BONE FLOUR (*Thunnus albacares*) ON THE CHARACTERISTICS OF COOKIES MADE FROM WHEAT FLOUR AND AVOCADO SEED FLOUR (*Persea americana* Mill)

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ABSTRAK

This research aimed to determine the effect of adding tuna fish bone flour on the characteristics of cookies made from wheat flour and avocado seed flour. The experimental design used in this study was a completely randomized design (CRD) with 5 treatments and 3 replications. The research data were analyzed statistically using Analysis of Variance (ANOVA) and subsequently subjected to Duncan's New Multiple Range Test (DNMRT) at the 5% level. The results of this study indicate that the addition of tuna bone flour to cookies has a significant effect on physical analysis, chemical analysis including moisture content, ash content, protein content, fat content, carbohydrate content, and calcium content, as well as a significant effect on organoleptic aroma, taste, texture, and total plate count. However, it does not significantly affect the analysis of crude fiber content and the organoleptic color of the cookies. The best cookies treatment produced was treatment C (20% tuna fish bone flour addition) with a hardness value of 368,35 N/cm², moisture content of 2.65%, ash content of 8,86%, protein content of 9.89%, fat content of 21.20%, carbohydrate content of 57,40%, crude fiber 1.94%, calcium 6,81%, total plate count 1.28×10^3 and organoleptic color 3.84, aroma 3.56, taste 3,96, and texture 4.40

Key words: Avocado seed flour; calcium; cookies; tuna fish bone flour