

**PENGARUH SUBSTITUSI TEPUNG TERIGU DENGAN TEPUNG PISANG KEPOK (*Musa paradisiaca* L.) DAN TEPUNG LABU KUNING (*Cucurbita moschata*) TERHADAP SIFAT FISIK, KIMIA DAN ORGANOLEPTIK *COOKIES***

[THE EFFECT OF SUBSTITUTION OF WHEAT FLOUR WITH BANANA KEPOK FLOUR (*Musa paradisiaca* L.) AND PUMPKIN FLOUR (*Cucurbita moschata*) ON PHYSICAL, CHEMICAL AND SENSORY ATTRIBUTES OF *COOKIES*]

Nur Rizka Perussia<sup>1)</sup>, Eko Basuki<sup>2)</sup>, I Wayan Sweca Yasa<sup>2)</sup>

<sup>1)</sup>Mahasiswa Fakultas Teknologi Pangan Dan Agroindustri Universitas Mataram

<sup>2)</sup>Staf Pengajar Fakultas Teknologi Pangan Dan Agroindustri Universitas Mataram  
Jl. Majapahit No. 58 Mataram

\*email: [nurrikaperussia37@gmail.com](mailto:nurrikaperussia37@gmail.com)

**ABSTRACT**

*This study aim was to determine the effect of substitution of wheat flour with banana kepok flour (*Musa paradisiaca* L.) and pumpkin flour (*Cucurbita moschata*) on the physical, chemical and sensory attributes of cookies. The experiment was conducted in laboratory and arranged with Completely Randomized Design (CRD) of 6 levels of composite flour. The composite flour were 50% of wheat flour, 45% of banana kepok flour and 5% pumpkin flour (P1); 50% of wheat flour, 40% of banana kepok flour and 10% pumpkin flour (P2); 50% of wheat flour, 35% of banana kepok flour and 15% pumpkin flour (P3); 50% of wheat flour, 25% of banana kepok flour and 25% pumpkin flour (P4), 50% of wheat flour, 30% of banana kepok flour and 20% pumpkin flour (P5), and 100% of wheat as a control (P0). The parameters observed included physical parameters (hardness and color), chemical parameters (moisture content, ash content and protein content), and sensory attributes of cookies parameters (aroma, taste, texture and color). Data was analyzed with analysis of variance (ANOVA) at 5% level of significancy and post hoc test with Least Significant Difference (LSD) at the same significant level of 5%. The results showed that the substitution of wheat flour with banana kepok flour and pumpkin flour with different proportion significantly affected on the level of hardness, color, moisture content, protein content and sensories attributes of the cookies, however the ash content of cookies was not affected. The substitution level of wheat flour for the cookies quality met the quality standards of Indonesia cookies SNI 01-2973-1992, except the protein content. The best formulation of composite flour the cookies was in the 50% wheat flour:35% banana kepok flour:15% pumpkin flour (P3). The cookies had physical characteristic of colour (74,25% of <sup>0</sup>Hue ; 63,26% of L value), and hardness of 35,05 N/mm. The chemical characteristic such as moisture, ash, and protein content were 3.93%, 1.72%, and 5.09%, respectively. All sensories attributes of cookies score such as aroma, taste, texture, and color were preferred.*

**Keywords:** *Banana Kepok Flour, Cookies, Pumpkin Flour*

**ABSTRAK**

Penelitian ini bertujuan untuk mengetahui pengaruh substitusi tepung terigu dengan tepung pisang kepok (*Musa paradisiaca* L.) dan tepung labu kuning (*Cucurbita moschata*) terhadap sifat fisik, kimia dan organoleptik *cookies*. Percobaan dilakukan di laboratorium dan disusun dengan Rancangan Acak Lengkap (RAL) 6 kadar tepung komposit. Tepung komposit terdiri dari 50% tepung terigu, 45% tepung pisang kepok dan 5% tepung labu kuning (P1); 50% tepung terigu, 40% tepung pisang kepok dan 10% tepung labu kuning (P2); 50% tepung terigu, 35% tepung pisang kepok dan 15% tepung labu kuning (P3); 50% tepung terigu, 30% tepung pisang kepok dan 20% tepung labu kuning (P4); 50% tepung terigu, 25% tepung pisang kepok dan 25% tepung labu kuning (P5), dan 100% tepung terigu sebagai control (P0). Parameter yang diamati meliputi parameter fisik (tingkat kekerasan dan warna), parameter kimia (kadar air, kadar abu dan kadar protein), dan parameter organoleptik (aroma, rasa, tekstur dan warna). Data dianalisis dengan analisis keragaman (ANOVA) pada taraf signifikansi 5% dan uji lanjut dengan Beda Nyata Terkecil (BNT) pada taraf signifikansi yang sama 5%. Hasil penelitian menunjukkan bahwa substitusi tepung terigu dengan tepung pisang kepok dan tepung labu kuning dengan proporsi berbeda berpengaruh nyata terhadap tingkat kekerasan, warna, kadar air, kadar protein dan organoleptik *cookies*, namun kadar abu *cookies* tidak tidak berpengaruh nyata. Tingkat substitusi tepung terigu terhadap mutu *cookies* telah memenuhi standar mutu *cookies* Indonesia SNI 01-2973-1992, kecuali kandungan proteinnya. Formulasi terbaik dari tepung komposit *cookies* adalah pada tepung terigu 50%:35% tepung pisang kepok:15% tepung labu kuning (P3). *Cookies* memiliki sifat fisik warna (74,25% dari <sup>0</sup>Hue dan 63,26% dari nilai L) dan kekerasan 35,05 N/mm. sifat kimia seperti kadar air, kadar abu dan kadar protein berturut-turut adalah 3,93%, 1,72% dan 5,09%. Semua skor organoleptik *cookies* seperti aroma, rasa, tekstur dan warna disukai.

**Kata kunci:** *Cookies, Tepung Labu Kuning, Tepung Pisang Kepok*