

## ABSTRACT

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***UTILIZATION OF PURPLE SWEET POTATO FLOUR (*Ipomoea batatas* (L.) Lam.) AND JICAMA FLOUR (*Pachyrrhizus erosus* (L.) Urb.) AS SOURCE OF FIBER IN THE MAKING OF GLUTEN FREE COOKIES***

Thesis, Faculty of Science and Technology (2018)

(xx + 76 pages, 14 tables, 31 figures, 22 appendices)

*Cookies are generally made from wheat flour containing gluten, which gives a negative effect to people with celiac disease, autism syndrome, and has a low fiber content. Consumption of dietary fiber in the society is still far from daily fiber requirement. The purpose of this research is to make gluten-free cookies made from purple sweet potato flour and jicama flour which has high dietary fiber content. The research begins with the making of jicama flour with various drying methods and time such as cabinet dryers (24, 26, and 28 hours), oven (24, 26, and 28 hours), and microwave oven (50, 55, and 60 minutes) so that can be obtained flour with high fiber content. The purple sweet potato flour and jicama flour obtained contains 11.03% and 16.32% of dietary fiber. Gluten-free cookies are made by formulating different ratio between purple sweet potato flour and jicama flour (90:10, 80:20, 70:30, 60:40, 50:50). Each formulation was analyzed for dietary fiber content, moisture content, color, texture, and organoleptic (color, flavor, taste, texture, overalls). The best formulation obtained is cookies made with purple sweet potato flour and jicama flour with the ratio of 50:50. The best formulation contains 3.75% moisture, 2.17% ash, 25.07% fat, 5.63% protein, 63.37% carbohydrate, and 12.20% dietary fiber.*

Keywords: *gluten free, jicama, cookies, dietary fiber, purple sweet potato*

References: 70 (1978-2017)

## ABSTRAK

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**PEMANFAATAN TEPUNG UBI JALAR UNGU (*Ipomoea batatas* (L.) Lam.)  
DAN TEPUNG BENGKUANG (*Pachyrrhizus erosus* (L.) Urb.) SEBAGAI  
SUMBER SERAT DALAM PEMBUATAN *COOKIES* BEBAS GLUTEN**  
Tugas Akhir, Fakultas Sains dan Teknologi (2018)

(xx + 76 halaman, 14 tabel, 31 gambar, 22 lampiran)

*Cookies* umumnya terbuat dari bahan baku tepung terigu yang mengandung gluten sehingga memberikan efek negatif terhadap penderita *celiac disease*, sindrom autisme, dan rendah kandungan seratnya. Konsumsi serat pangan masyarakat masih jauh dari kebutuhan serat harian. Tujuan dari penelitian ini adalah membuat *cookies* bebas gluten yang berbahan baku tepung ubi jalar ungu dan tepung bengkuang yang memiliki kandungan serat pangan tinggi. Penelitian diawali dengan pembuatan tepung bengkuang dengan berbagai metode dan waktu pengeringan seperti *cabinet dryer* (24, 26, dan 28 jam), oven (24, 26, dan 28 jam), dan *microwave oven* (50, 55, dan 60 menit), sehingga dapat diperoleh tepung dengan kandungan serat pangan yang tinggi. Tepung ubi jalar ungu dan tepung bengkuang yang dihasilkan memiliki kandungan serat pangan sebesar 11,03% dan 16,32%. *Cookies* bebas gluten dibuat dengan formulasi perbedaan rasio antara tepung ubi jalar ungu dengan tepung bengkuang (90:10, 80:20, 70:30, 60:40, 50:50). Setiap formulasi dianalisis kadar serat pangan, kadar air, warna, tekstur, dan organoleptik (warna, aroma, rasa, tekstur, *overall*). Formulasi terbaik diperoleh untuk *cookies* yang dibuat dengan rasio tepung ubi jalar ungu dan bengkuang 50:50. Formulasi terbaik mengandung kadar air 3,75%, abu 2,17%, lemak 25,07%, protein 5,63%, karbohidrat 63,37%, serta serat pangan 12,20%.

Kata kunci: bebas gluten, bengkuang, *cookies*, serat pangan, ubi jalar ungu

Referensi: 70 (1978-2017)