

WULAN ARFINA RYANI (110331100011). Karakteristik Sifat Fisik Roti Tawar *Gluten-Free* Berbahan Tepung Uwi Ungu (*Dioscorea alata*), Tepung Beras, Dan Tepung Gathotan. Dibawah Bimbingan Sri Hastuti, SPt., MP dan Ir.Umi Purwandari, M.App. Sc. Ph.D.

ABSTRAK

Produk bebas gluten mulai banyak dikaji untuk tujuan pengurangan ketergantungan pada terigu dan memenuhi kebutuhan makanan yang tidak menggunakan terigu. Tujuan dari penelitian ini mengetahui dan mengkaji pengaruh komposisi adonan roti tawar gluten-free berbahan tepung uwi ungu, tepung beras, dan tepung gathotan terhadap karakteristik tekstural (hardness), crumb density, crumb porosity, volume pengembangan, dan karakteristik warna. Perlakuan terdiri dari lima kombinasi yang mengandung tepung uwi ungu (40 gr), tepung beras (32,5 gr, 30 gr, 27,5 gr, 25 gr, 22,5 gr), dan gathotan (27,5 gr, 30 gr, 32,5 gr, 35 gr, 37,5 gr). Hasil penelitian roti tawar gluten-free berpengaruh nyata ($P < 0,05$) terhadap kekerasan (hardness) dan warna L dalam dan a^* dalam. Namun tidak berbeda nyata ($P \geq 0,05$) terhadap volume pengembangan, crumb density, crumb porosity, dan warna L luar, a^* luar, b^* dalam, dan b^* luar. Roti tawar gluten-free dengan hardness terendah pada perlakuan P3 sebesar 3894,9 g, volume pengembangan tertinggi sebesar 23mL pada perlakuan P4. Nilai crumb density terendah terdapat pada perlakuan P4 sebesar 0,4298 gr/ml, crumb porosity tertinggi pada perlakuan P5 sebesar 0,7593. Karakteristik warna roti tawar nilai L luar 42,9667 (P3), L dalam 47,2000 (P2) dan nilai a^* luar, b^* luar, a^* dalam, dan b^* dalam roti tawar gluten-free yaitu 12,9000, 9,0333, 9,7667, 10,2667.

Kata kunci : Roti tawar, gluten-free, tekstural, fisik, warna.

ABSTRACT

Gluten-free products ranging widely studied for the purpose of reduction dependence on wheat and meet the needs of food that does not use wheat. The purpose of this research were determine and assess the effect of white bread dough composition gluten-free made from purple yam flour, rice flour, and gathotan flour against tekstural characteristics (hardness), crumb density, crumb porosity, volume expansion, and color. The treatment consisted of five combinations starchy purple yam (40 grams), rice flour (32,5 g, 30 g, 27,5 g, 25 g, 22,5 g), and gathotan (27,5 g, 30 g, 32,5 g, 35 g, 37,5 g). Research of result gluten-free bread significant ($P < 0,05$) against violence (hardness), L and a^* outside. But not significantly different ($P \geq 0,05$) to the volume of development, crumb density, crumb porosity, and color on gluten-free bread. Gluten-free bread with low hardness in treatment P3 (3894,9 g), the volume of 23 ml development in P4 treatment. Crumb density values contained in P4 treatment (0,4298 g/ml), crumb porosity in treatment P5 (0,7593). Characteristic color of white bread L value beyond 42,9667 (P3), L in 47,2000 (P2) and the value of a^* outside, b^* outside, a^* in, and b^* in gluten-free bread 12,9000, 9,0333, 9,7667, and 10,2667.

Keywords: bread, gluten-free, tekstur, physic, color.