

ABSTRAK

Kekurangan iodium masih menjadi masalah besar di beberapa negara di dunia, khususnya negara-negara berkembang termasuk Indonesia. Kekurangan iodium dapat menurunkan kecerdasan dan konsentrasi anak, gangguan pertumbuhan fisik dan mental, serta memicu pertumbuhan gondok. Fortifikasi pangan dengan iodium merupakan pendekatan yang menarik untuk mengurangi resiko gangguan akibat kekurangan iodium (GAKI).

Tujuan penelitian ini adalah untuk meningkatkan nilai ekonomi ganyong menjadi makanan ringan yang bergizi dan bermanfaat bagi kesehatan. Penelitian ini memanfaatkan umbi ganyong yang diolah menjadi *cookies* difortifikasi iodium dengan mengkaji lama blanching umbi ganyong dan lama pemanggangan.

Metode penelitian terdiri dari penelitian pendahuluan; untuk mengetahui kadar air dan derajat putih dari tepung ganyong; dan penelitian utama. Rancangan percobaan yang digunakan dalam penelitian utama adalah pola faktorial (3×3) dalam rancangan acak kelompok (RAK). Rancangan perlakuan yang dilakukan pada penelitian ini terdiri dari dua faktor yang masing-masing terdiri dari 3 taraf yaitu faktor lama blanching umbi ganyong dengan lama pemanggangan. Respon penelitian utama meliputi respon kimia; kadar air, kadar iodium dan kadar serat kasar untuk sampel terpilih; respon organoleptik; warna, aroma, rasa, kerenyahan.

Hasil penelitian pendahuluan menunjukkan bahwa metode blanching yang dipilih dalam pembuatan tepung ganyong yaitu metode direbus dengan hasil analisis kadar air 7,41% dan derajat putih 68,88%. Hasil penelitian utama menunjukkan bahwa lama blanching berpengaruh terhadap aroma; lama pemanggangan berpengaruh terhadap warna, aroma, rasa, kerenyahan, kadar air dan kadar iodium. Selain itu interaksi lama blanching dengan lama pemanggangan berpengaruh terhadap aroma. Produk *cookies* ganyong memiliki rata-rata kadar air 3,44%-4,39%, rata-rata kadar iodium 71,181-27,535 ppm dan kadar serat kasar 6,5% (sampel terpilih).

Kata kunci : Umbi ganyong, *cookies*, fortifikasi, iodium.

ABSTRACT

Iodine deficiency still become a major public health problem in several areas of the world especially in developing countries including Indonesia. It can cause children intelligence and concentration decline, physical and mental disorder and promoted growth of goiter. Food fortified with iodine is an interesting approachment to decrease the risk of Iodine Deficiency Disorder (IDD).

The purpose of this research were to increased the economic value of arrowroot become a high nutrition and healthy snack. This research used arrowroot processed into cookies that has been fortified with iodine by consider the time of blanching and the time of baking.

The research method were carried out of two stages, that were preliminary research and primary research. Preliminary research was do to find out the moisture and white degree of arrowroot flour. The experimental design in primary research used factorial 3 x 3 on randomized factorial design. Experimental design used in this research consist of 2 factors were each factor had 3 stages, those two factor are; time blanching and time of baking. Response of the primary research included chemical response; moisture, iodine level and coarse fiber level as per selected sample; and organoleptic response include colour, flavour, taste, crispness.

The result of preliminary research showed that blanching metode selected during making of flour from arrowroot is by boiled process with moisture analys result 7,41% and white degree 68,88%. The result of primary research showed that the time of blanching metode can be influence to flavour; time of baking influence to colour, flavour, taste, crispness, moisture and iodine level. Therefore the interaction between time of blanching and time of baking can be influence to flavour. Arrowroot cookies has average moisture 3,44%-4,39%, iodine level 71,181-27,535 ppm and coarse fiber 6,5% (selected sample).

Key word: arrowroot, cookies, fortification, iodine.