

RINGKASAN

Penelitian ini dilaksanakan di Laboratorium THP Fakultas Pertanian UISU.

Umbi porang merupakan salah satu jenis tanaman dalam suku talas-talasan yang banyak tumbuh di Indonesia. Umbi porang merupakan salah satu umbi yang dimanfaatkan kebutuhan hidup masyarakat Indonesia diantaranya sebagai bahan makanan, obat-obatan dan tanaman hias. Umbi porang mengandung polisakarida yang dapat menyerap air serta memiliki kandungan glukomanan yang tinggi. Masalah dalam pengembangan tepung umbi porang yang masih harus dilakukan adalah menurunkan kandungan oksalat pada umbi porang, dengan menggunakan cara sederhana seperti dilakukan metode dengan menggunakan jenis pelarut kimia, Kalsium oksalat yang terkandung dalam umbi porang ini menyebabkan rasa gatal dan ketika diekstraksi akan mempengaruhi kualitas tepung glukomanan, sehingga perlu dilakukan penurunan kadar kalsium oksalat dengan menggunakan pelarut asam, seperti asam sitrat dan asam askorbat.

Penelitian menggunakan rancangan acak lengkap (RAL) non faktorial yaitu : AS1 = Asam Sitrat 3%, AS2 = Asam Sitrat 5%, AS3 = Asam Sitrat 7%, AA1 = Asam Askorbat 3%, AA2 = Asam Askorbat 5%, AA3 = Asam Askorbat 7%. Parameter yang diamati meliputi kadar air, kadar abu, kalsium oksalat, glukomanan dan organoleptik warna.

Hasil penelitian : Kadar air tertinggi 12,78% (AS₂), terendah 11,59% (AA₃), Kadar abu tertinggi 3,22% (AA₁), terendah 2,87% (AS₃), Kalsium oksalat tertinggi 6,56% (AS₁), terendah 4,09% (AA₃), Glukomanan tertinggi 66,00% (AA₃), terendah 51,89% (AS₁), Warna tertinggi 2,95 (AA₃), terendah 2,45% (AS₁). Untuk membuat tepung porang yang baik dapat dilakukan perendaman dalam larutan asam askorbat konsentrasi 7%, dan larutan asam sitrat 7%.

Kata Kunci : *Tepung Porang, Asam Sitrat, Asam Askorbat.*

SUMMARY

This research was carried out at the THP Laboratory, Faculty of Agriculture, UISU.

Porang tuber is one type of plant in the taro tribe that grows in Indonesia. Porang tuber is one of the tubers that are used for the needs of Indonesian people, including as food, medicine and ornamental plants. Porang tubers contain polysaccharides that can absorb water and have a high glucomannan content. The problem in the development of porang tuber flour that remains to be done is to reduce the oxalate content in porang tubers, by using a simple method such as the method using a type of chemical solvent, calcium oxalate contained in porang tubers causes itching and when extracted will affect the quality of glucomannan flour, so it is necessary to reduce calcium oxalate levels by using acid solvents, such as citric acid and ascorbic acid.

This study used a non-factorial completely randomized design (CRD), namely: AS1 = 3% citric acid, AS2 = 5% citric acid, AS3 = 7% citric acid, AA1 = 3% ascorbic acid, AA2 = 5% ascorbic acid, AA3 = 7% ascorbic acid. Parameters observed included moisture content, ash content, calcium oxalate, glucomannan and color organoleptic.

Research results: Highest water content 12.78% (AS2), lowest 11.59% (AA3), highest ash content 3.22% (AA1), lowest 2.87% (AS3), highest calcium oxalate 6.56% (AS1), lowest 4.09% (AA3), highest Glucomannan 66.00% (AA3), lowest 51.89% (AS1), Highest color 2.95 (AA3), lowest 2.45% (AS1). To make good porang flour, you can soak it in a 7% concentration of ascorbic acid solution and a 7% citric acid solution.

Keywords : *Porang flour, citric acid, ascorbic acid.*