

RINGKASAN

Tanaman Porang (*Amorphophalus oncophyllus*) atau seringkali disebut dengan iles-iles adalah tumbuhan semak herbal yang berumbi dalam tanah dan dapat ditemukan di kawasan hutan. Umbi porang merupakan tanaman penghasil umbi yang telah lama dikenal di Indonesia namun belum banyak dimanfaatkan dan tumbuh secara liar di hutan, di bawah rumpun bambu, dan di lereng-lereng gunung. Pada saat ini Tanaman porang merupakan tanaman yang tengah populer diperbincangkan di masyarakat, hal ini dibuktikan dengan adanya petani sukses yang menjadi seorang miliader karena berperan sebagai pebisnis ekspor umbi porang

Kandungan oksalat dalam umbi dapat dihilangkan dengan beberapa perlakuan seperti, perlakuan fisik, kimiawi dan mekanis. Beberapa perlakuan secara fisik sederhana diantaranya melalui proses pencucian, perebusan serta pengukusan. Upaya lainnya dalam mereduksi kandungan kalsium oksalat adalah dengan perlakuan kimia. Proses tersebut dilakukan dengan tujuan dekomposisi kalsium oksalat menjadi asam oksalat yang dapat larut dalam air dengan cara melarutkan kalsium oksalat ke dalam pelarut kimia.

Penelitian ini dilaksanakan di Laboratorium Fakultas Pertanian UISU. Model rancangan yang digunakan pada penelitian ini adalah Rancangan Acak Lengkap (RAL) faktorial yang terdiri atas dua faktor utama yaitu : Faktor I: Konsentrasi Natrium Metabisulfit (N) terdiri atas 4 taraf perlakuan yaitu : $N_1 = 0\%$, $N_2 = 0.2\%$, $N_3 = 0.4\%$, $N_4 = 0.6\%$. Faktor II: Lama Perendaman (L) yang terdiri atas 4 taraf yaitu : $L_1 = 15$ menit, $L_2 = 30$ menit, $L_3 = 45$ menit dan $L_4 = 60$ menit. Parameter yang diamati terdiri dari kadar air, kadar abu, kalsium oksalat, glukomanan dan organoleptik warna. Hasil penelitian menunjukkan bahwa konsentrasi natrium metabisulfit berpengaruh berbeda sangat nyata ($P > 0.01$) terhadap organoleptik warna, namun berpengaruh tidak nyata ($P < 0.05$) terhadap kadar air, kadar abu, kalsium oksalat dan glukomanan. Lama perendaman berpengaruh berbeda sangat nyata ($P > 0.01$) terhadap kadar air, kadar abu, kalsium oksalat dan glukomanan namun berpengaruh tidak nyata ($P < 0.05$) terhadap organoleptik warna. Interaksi perlakuan berpengaruh tidak nyata ($P < 0.05$) terhadap seluruh parameter yang diamati.

Kata Kunci : umbi porang, Natrium Metabisulfit, Perendaman Asam Asetat

SUMMARY

The Porang plant (*Amorphophalus oncophyllus*) or often called iles-iles is a herbal shrub that grows bulbs in the ground and can be found in forest areas. Porang tubers are a tuber-producing plant that has long been known in Indonesia but has not been widely used and grows wild in forests, under bamboo groves and on mountain slopes. Currently, the porang plant is a plant that is being popularly discussed in the community, this is proven by the existence of a successful farmer who has become a billionaire because of his role as a porang tuber export businessman.

The oxalate content in tubers can be removed by several treatments such as physical, chemical and mechanical treatment. Some simple physical treatments include washing, boiling and steaming. Another effort to reduce calcium oxalate content is by chemical treatment. This process is carried out with the aim of decomposing calcium oxalate into oxalic acid which can be dissolved in water by dissolving the calcium oxalate in a chemical solvent.

This research was carried out at the UISU Faculty of Agriculture Laboratory. The design model used in this research is a factorial Completely Randomized Design (CRD) which consists of two main factors, namely: Factor I: Concentration of Sodium Metabisulfite (N) consisting of 4 treatment levels, namely: $N_1 = 0\%$, $N_2 = 0.2\%$, $N_3 = 0.4\%$, $N_4 = 0.6\%$. Factor II: Soaking Time (L) which consists of 4 levels, namely: $L_1 = 15$ minutes, $L_2 = 30$ minutes, $L_3 = 45$ minutes and $L_4 = 60$ minutes. The parameters observed consisted of water content, ash content, calcium oxalate, glucomannan and organoleptic color. The results showed that the concentration of sodium metabisulfite had a very significant ($P > 0.01$) effect on organoleptic color, but had no significant effect ($P < 0.05$) on water content, ash content, calcium oxalate and glucomannan. Soaking time had a very significant different effect ($P > 0.01$) on water content, ash content, calcium oxalate and glucomannan but had no significant effect ($P < 0.05$) on organoleptic color. The treatment interaction had no significant effect ($P < 0.05$) on all observed parameters.

Keywords: porang tubers, Sodium Metabisulfite, Acetic Acid Soaking