

ABSTRACT

Porang tubers are one of the natural wealth owned by Indonesia. Not many people know porang tubers as a local food that grows a lot on forest land in East Java. Porang tubers contain about 15% - 16% glucomannan. In addition to containing glucomannan, porang tubers also contain oxalate compounds. Oxalate compounds are in the form of needle crystals that can cause itching and irritation of the lips and tongue when consumed.

Oxalate compounds in porang tubers have two forms, namely water-soluble oxalate and water-insoluble oxalate, oxalic acid has water-soluble properties so that oxalate compounds can be derived through soaking in Lime solution. This study aims to determine the effect of stirring speed treatment using 5% lime solution on reducing oxalate compounds in porang tubers. Porang tubers are soaked in lime solution with variations in stirring speed of 300,500, and 700 rpm.

Determination of oxalate compound levels was carried out using the permanganometric titration method, the results showed that treatment in variations in the stirring speed of 5% lime solution could reduce total oxalate levels in porang tubers, The highest decrease was found in the 5% 500 rpm lime stirring speed variation of 19.0893%, while the lowest decrease was found in the 5% lime stirring speed variation of 5.6406%.

Keywords: Porang tuber, Permanganometrics, Lime 5%, Oxalate compound