

ABSTRACT

EFFECT OF CONCENTRATION OF NaCl SOLUTION ON CALCIUM OXALATE LEVELS OF PORANG (*Amorphophallus muelleri* Blume)

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Porang tuber (*Amorphophallus muelleri* Blume) is an iles-iles plant from the Araceae family with a diameter of ± 28 cm which has a higher glucomannan content than other tubers. This glucomannan content is often used as an alternative food source to lower cholesterol levels and diet foods. Porang tubers also contain calcium oxalate which becomes an obstacle when it is processed and consumed. Deficiency of calcium oxalate, namely itching, burning and causing health problems.

One of them to reduce calcium oxalate levels is to use a salt solution (NaCl). In this study, NaCl solution was used because of the ionization between Na⁺ and Cl⁻ compound ions that bind oxalate compounds. Researchers used variations in the concentration of NaCl solution to reduce levels of calcium oxalate contained in porang tubers. After peeled and washed samples were then cut into sizes of 2x2 cm with a thickness of 0.5 cm and then soaked with NaCl solution with concentrations of 3, 5 and 7%. After soaking, do dried under sunlight. Then analyzed by permanganometric titration method.

The results obtained from this study are a decrease in levels from the effect of variations in concentration on calcium oxalate levels. The percentages of variation in the concentration of NaCl solution of 3, 5 and 7% respectively were 54%; 62.68%; 69.83%. So it can be seen that the higher the concentration used, the greater the decrease in calcium oxalate levels in porang tubers.

Keywords: concentration, porang tuber, sodium chloride