

***Physical, Chemical, and Functional Characteristics of Atlantic Potato Flour with Calcium Chloride Immersion and Blanching as a Functional Food Ingredient***

Maharani Aghnil Majidah

***Clinical Nutrition Study Program  
Health Department***

***ABSTRACT***

*Potatoes are one of the alternative food sources with potential to be developed as raw materials for food products. Preperlakuan such as Blanching and calcium chloride soaking can affect flour characteristics through changes in tissue structure and chemical components. Processing into flour aims to improve shelf life and expand the utilization of potatoes in various food products. This study aimed to determine the characteristics of Atlantic potato flour with different perlakuan, namely without perlakuan (P0), Blanching, for 6 minutes (P1), and soaking in calcium chloride solution (P2). This research was conducted as a laboratory experiment using quantitative descriptive analysis of physical, chemical, and functional properties. The results showed that Blanching perlakuan produced the highest water holding capacity (WHC) of 310.77% in P1, followed by P2 at 184.31% and P0 at 177.12%; oil holding capacity (OHC) of 76.70% in P1, followed by P2 at 71.83% and P0 at 65.91%; and swelling power of 538.72% in P1, followed by P0 at 473.92% and P2 at 427.07%. Meanwhile, calcium chloride soaking resulted in the brightest color with the highest L\* value of 73.62, followed by P1 at 67.47 and P0 at 61.78. The highest moisture content was observed in P1 at  $12.14 \pm 0.04\%$ , followed by P0 at  $11.87 \pm 0.08\%$  and P2 at  $11.80 \pm 0.06\%$ . The highest fat content was found in P2 at  $0.19 \pm 0.03\%$ , followed by P0 at  $0.15 \pm 0.01\%$  and P1 at  $0.14 \pm 0.04\%$ . The highest protein content was also observed in P2 at  $1.39 \pm 0.03\%$ , followed by P0 at  $1.35 \pm 0.01\%$  and P1 at  $1.34 \pm 0.01\%$ .*

*Keywords: Blanching, Calcium chloride, Physical properties, Chemical properties, Functional properties, Potato starch.*