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The purpose of this research was to determine the concentration of hydrochloric acid and the hydrolysis right time in the production of liquid sugar from sweet potato Cilembu.

The design used in this research to analyze the experimental data is a simple linear regression method with the independent variable (x) is the concentration of hydrochloric acid consisting of 0.1 N, 0.3 N and 0.5 N and long hydrolysis is at 1.5 hours, 2 hours and 2.5 hours. The dependent variable (y) consists of water content, TSS, and viscosity.

Results of preliminary research by physical responses using TSS test results obtained by the roasting time of 45 minutes with a value of TSS 9.257 0 Brix.

The main research results potato Cilembu liquid sugar that has been done on the long hydrolysis of 1 hour, 2 hours and 2.5 hours, and the concentration of hydrochloric acid 0.1 N, 0.3 N and 0.5 N, showed a correlation old hydrolysis and concentration hydrochloric acid to a decrease in water content, TSS and viscosity indicated by the value of the correlation coefficient (r) of linear regression on a combination of each treatment. Based on the analysis of water content of liquid sugar sweet potato Cilembu shows that there is an indirect linear correlation between the old sugar hydrolysis with liquid water content Cilembu. TSS analysis and viscosity of liquid sugar potato showed a direct correlation that has a perfectly linear relationship between long hydrolysis of the TSS concentration and viscosity of the molten sugar Cilembu.

Keywords: Liquid Sugar Sweet Cilembu, concentrations of hydrochloric acid and a long hydrolysis