

Analysis Of Coconut Sugar Product Quality Control Using Statistical Processing Control (SPC) Method at UD. Nuril In Jember Regency

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ABSTRACT

UD Nuril is one of the coconut sugar producers in Jember Regency that still uses traditional processing methods. This study aims to determine whether the production process carried out has produced coconut sugar products that are in accordance with the standards set by the company. Quality control is carried out using the Statistical Process Control method. Based on observations of the p control chart in the color test, there was no data that was out of control, the process capability value was 0.947 or 94.7%. Ash content testing using the X-bar and R control charts, all data was within the control limits, the process capability value of 1.04 indicated that the process was in the good category. Based on the X-bar and R control charts in the water content test, there was data that was out of control on the X-bar control chart indicating that the data was not statistically controlled, the process capability of 2.09 indicated that the process was very good. The results of the fishbone diagram analysis showed that there were four main factors that caused high water content, namely human factors, work methods, machines, raw materials, and the environment. Human factors are related to the lack of job training for employees which causes inaccuracy in carrying out the production process. Work method factors include operational standards that are not yet consistent, resulting in variations in the final product results. Raw material factors are influenced by the unstable quality of sap which has a direct impact on the quality of coconut sugar. Environmental factors are caused by unpredictable weather which affects the durability and physical quality of the product.

Keywords: *Quality Control, Coconut Sugar, Statistical Processing Control*