

ABSTRACT

PT Asiatic Persada is a company engaged in the business of oil palm plantations to the processing unit of fresh fruit bunches into crude palm oil (CPO). Preliminary observations indicate the quality of CPO produced did not meet quality standards free fatty acid levels of 4.74%, 0.23% and moisture content of 0.025%. To evaluate the performance of the quality control of the production process, applied method of Statistical Process Control (SPC).

Using: check sheet, control chart \bar{x} and the R and the causal diagram. Known causes of quality deviations are: raw materials, work methods, machinery and work environment. Once the causes are known, then do the proposed improvements and implementation.

Proposed improvements and implementation done to control the quality of CPO to the action of harvesting oil palm fruits implementation schedule with respect to the criteria of maturity, and use the system to control the harvest remains raw materials and for process control is necessary to control the production machinery is done by checking routine. The results of the implementation of free fatty acid levels of 4.48%, 0.19% and moisture content of 0.020% impurities.

Keywords: *Statistical Process Control (SPC), check sheet, control chart \bar{x} and the R, causal-and-effect diagrams.*