Dry Cake Quality Control Using Statistical Process Control Method (Case Study of UD Sudarsi, Nganjuk Regency)

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ABSTRACT

Dry cake was a bread made from wheat flour, sugar, and eggs. UD Sudarsi has a dry cake production business located in Kemlokolegi Village, Baron District, Nganjuk Regency. This study aimed to determine how to implement cake quality control and the root causes of problems related to dry cake's incompleteness, nonuniformity, and uncleanliness. This type of research uses quantitative descriptive through a survey approach in 20 observations. The sampling technique uses a random sampling sample of 900 pcs. The method used is Statistical Process Control (SPC). The SPC method tools use check sheets, p control charts, Pareto diagrams, cause and effect diagrams (Ishikawa), and process capability (Cp). The results of the study obtained a p control chart which showed that the variables of dry sponge cake's incompleteness, dry sponge cake's non-uniformity, and dry sponge cake's uncleanliness were still within the control limits. The Pareto diagram showed that the most common problem with dry sponge cake products was the variable of dry sponge cake's color non-uniformity of 976 pcs. The results of the cause-effect diagram, the cause of the defective dry sponge cake product occurred due to human factors that were less careful in working due to fatigue, hasty smearing method factors that were uneven and less than optimal machine performance factors. The overall process capability (Cp) showed that UD Sudarsi's quality control was good with a value of 96% producing dry sponge cake with appropriate integrity, 94% producing appropriate color, 98% producing appropriate dry sponge cake cleanliness. However, UD Sudarsi still had to maintain its quality in every production process so that dry sponge products were maintained and minimized the occurrence of excessive defects.

Keywords: Dry Cake, Quality, SPC