

***Quality Control Analysis of Tempe Using the Statistical Quality Control (SQC)
Method at Tempe Super “Sumber Mas” in Jember Regency
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ABSTRACT

The Super Tempe Business "Sumber Mas" is an agroindustrial business engaged in tempe production located in Jember Regency with the main raw material being soybeans. This study aims to identify quality control methods and analyze the level of product defects using the Statistical Quality Control (SQC) method. This business has a production capacity of up to 500 kg of soybeans per day, but faces physical quality constraints such as uneven ripeness, damaged packaging, unclean surfaces, and non-uniform shapes. The research method used was quantitative descriptive with a survey approach through direct observation for 20 days. The results of data processing using np control maps for four defect variables showed that all observation data points were within the control limit, indicating that the production process was statistically stable. Through the pareto diagram, it was found that the highest types of defects were sorted starting from the cleanliness of the tempe surface with a total defect and a Cp index of 187 boards (27%), uneven maturity of 179 boards (26%), uniformity of shape of 169 boards (24%), and damaged packaging of 162 boards (23%). Based on the fishbone diagram, the factors causing the mismatch came from the physical fatigue of the workers (people), temperature instability due to the absence of a thermometer (management), plastic residue in the heating element of the sealer machine (machine), and the use of hollow fermentation racks (equipment). Recommendations for improvement include the preparation of written SOPs, the provision of a 15-minute break, the procurement of a digital thermometer, periodic cleaning of the machine, and the use of a flat base of fine wire ram on the fermentation rack.

Kata Kunci: *Quality Control, Tempe Quality, Statistical Quality Control (SQC)*