

***“Analysis of Quality Control of Aromatic White Organic Rice Using the Statistical Process Control (SPC) At the Al Barokah Farmers Group, Bondowoso Regency”***

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***ABSTRACT***

*Al-Barokah Farmers Group (Gapoktan Al-Barokah) is one of the main actors in organic rice production in Bondowoso Regency. Since its establishment, this Gapoktan has developed a superior product in the form of aromatic white organic rice which has its own market. However, in the production process, various types of product defects are still found, so effective quality control is needed to maintain quality and competitiveness. This study aims to analyze the application of control charts, measure the value of process capability, and evaluate dominant defects using a Pareto diagram and identify problems and solutions using a cause-and-effect diagram. The production process of aromatic white organic rice in Al-Barokah Farmers Group includes weighing harvested grain, drying, milling and packaging. The analytical techniques used in this study include control charts, process capability, Pareto diagrams, and cause-and-effect diagrams. Based on the results of 25 observations, it is known that all quality criteria (rice integrity, rice color discrepancy, and rice uncleanliness) are within the statistical control limits. The process capability values show that the highest capability is 92.78% for rice color discrepancies, 89.94% for rice uncleanliness, and 87.70% for rice uncleanliness. Based on the Pareto diagram, the dominant defects were found to be rice uncleanliness (61.5%) and rice uncleanliness (20%). The main factors causing product defects include human, machine, method, material, and environmental aspects.*

***Keywords:*** *Quality Control, Aromatic White Organic Rice, Statistical Process Control*