

**Pengendalian Kualitas Produk *Pop Bites* Menggunakan Metode *Six Sigma* Di
PT Charoen Pokphand Indonesia Food Division Unit Ngoro**

*(Analysis of Waste Factors Affecting the Yield Reduction of Pop Bites Products at
PT Charoen Pokphand Indonesia Food Division Ngoro Unit)*

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ABSTRACT

This study aims to identify the factors causing waste, determine the Defect Per Million Opportunities (DPMO) and sigma level, and formulate improvement proposals for the Pop Bites production process at PT Charoen Pokphand Indonesia Food Division Unit Ngoro. A quantitative descriptive method based on Six Sigma DMAIC (Define, Measure, Analyze, Improve) was employed. In the Define stage, the highest waste occurred at the breeding process (1,275.21 kg), followed by frying (626.13 kg) and sorting defects (186.60 kg). The Measure stage showed that the breeding process had the lowest performance, with an average DPMO of 215,594.5 and a sigma level of 2.3, the frying process recorded a DPMO of 107,786.6 with a sigma level of 2.7, while sorting achieved the best performance, with a DPMO of 32,456.2 and a sigma level of 3.4. The Analyze stage identified the root causes of waste through a fishbone diagram covering Man, Machine, Method, and Material aspects in the breeding and frying processes. The Improve stage formulated corrective actions using the 5W+1H approach for each root cause, including operator training, machine maintenance, standardized loading SOPs, and raw material control, in order to reduce waste and bring the yield closer to the company's standard of 77%. Future research is recommended to proceed to the Control stage with a continuous monitoring system and to integrate Six Sigma with Failure Mode and Effect Analysis (FMEA).

Keywords: *Fishbone Diagram, Pop Bites, Six Sigma, Waste, Yield*