

ABSTRAK

Penelitian ini bertujuan untuk menganalisis pengendalian kualitas minyak goreng brand minyakita kemasan 1L dan 2L di PT Industri Nabati Lestari yang berlokasi di Sei Mangkei dengan menggunakan *Seven Tools of Quality*. Permasalahan utama yang ditemukan adalah kadar Asam Lemak Bebas (FFA), *Peroxide Value* (PV), dan *Cloud Point* (CP) yang melebihi spesifikasi internal meskipun masih sesuai standar SNI 7709:2019. Data diperoleh melalui observasi, *check sheet*, serta hasil uji laboratorium periode Maret–April 2025. Hasil analisis menunjukkan bahwa FFA berada pada kisaran 0,189–0,197%, PV pada 1,33–1,66 meqO₂/kg, dan CP sebesar 10,2°C. Diagram Pareto mengidentifikasi ketiga parameter tersebut sebagai penyumbang utama penyimpangan mutu terhadap visual *cloudy*, sedangkan analisis *fishbone* menunjukkan akar penyebab berasal dari mutu bahan baku, ketidakstabilan proses fraksinasi dan deodorizer, serta penyimpanan yang kurang optimal. *Control chart* mengindikasikan proses stabil secara statistik, namun belum memenuhi standar internal. Kesimpulan penelitian ini adalah penerapan *Seven Tools* efektif untuk mengidentifikasi masalah dominan dan akar penyebab, sehingga dapat digunakan sebagai dasar perbaikan mutu berkelanjutan

Kata kunci: Pengendalian Kualitas, Minyak Goreng, *Seven Tools*, FFA.

ABSTRACT

This study aims to analyze the quality control of 1L and 2L packaging of cooking oil brand Minyakita at PT Industri Nabati Lestari located in Sei Mangkei using Seven Tools of Quality. The main problems found were the levels of Free Fatty Acid (FFA), Peroxide Value (PV), and Cloud Point (CP) which exceeded internal specifications even though they still met the SNI 7709:2019 standard. Data were obtained through observation, check sheets, and laboratory test results for the period March–April 2025. The analysis results showed that FFA was in the range of 0.189–0.197%, PV at 1.33–1.66 meqO₂/kg, and CP at 10.2°C. The Pareto diagram identified these three parameters as the main contributors to quality deviations towards visual cloudy, while the fishbone analysis showed that the root causes came from the quality of raw materials, instability of the fractionation and deodorizer processes, and suboptimal storage. The control chart indicated that the process was statistically stable, but had not yet met internal standards. The conclusion of this study is that the application of the Seven Tools is effective in identifying dominant problems and root causes, so that it can be used as a basis for continuous quality improvement.

Keywords: *Quality Control, Cooking Oil, Seven Tools, FFA.*