

# Transforming Palm Oil Production Quality Inspection with Vision AI

Automating fruit inspection for consistent quality across the production line

In the lush landscapes of the Asia Pacific islands, where palm trees stretch as far as the eye can see, WIDE Agri has been quietly modernizing the agricultural industry with AI-powered solutions for monitoring quality assurance of palm fruit processing across production lines.

## The Palm Oil Predicament

Palm oil is derived from the fruit of oil palm trees. The quality of this oil is directly dependent on the ripeness of the fruit at the time of processing. WIDE Agri grappled with a critical issue they had no reliable method to assess the quality of palm fruits as farmers unloaded them onto the mill conveyor belts.

## Challenges Faced

- **Enhancing** crop quality assurance
- **Reducing variability** in inspection results of fruit ripeness.
- **Ensuring manual inspections** were being conducted.
- **Maintaining consistent quality standards** across production runs.



## Solution

WIDE Agri worked with Chooch to deploy advanced Vision AI on existing camera infrastructure to enable real-time assessment of palm fruit quality on conveyor belts. This automated continuous monitoring system replaced manual inspections and delivered more accurate categorization of fruit ripeness.

## Results

**98%**

Defect detection rate versus 80% with manual inspection

**4%**

Reduction in false positives of overripe fruit

**100%**

Reliability and uniformity of quality inspections