

Automate Fresh Fruit Bunch Counting and Grading with AyaGrow



Accurate Fresh Fruit Bunch (FFB) count and grading is crucial for oil palm managers to optimize harvesting processes and assess block-by-block productivity. Typically, this process is conducted manually, if at all, which means it is prone to errors and subjectivity.

Our pioneering AI solution automates FFB count and grading, giving oil palm managers a direct insight into the exact count and grade of all FFBs produced on the plantation, block by block, in real-time. This empowers managers to flag areas producing fewer or worse quality FFBs than should be expected, whether due to poor agronomic or harvesting practices or supervision, and to take immediate action to mitigate this, ultimately intensifying oil yields, and leading to higher Oil Extraction Rate (OER).

The Challenges of Post-Harvest Management

- **Ineffective Monitoring and Auditing of Harvest Teams:** Ineffective monitoring and auditing of harvest teams can lead to inaccurate yield reporting, poor quality control, and revenue loss due to theft or inefficiencies.
- **Limited Visibility Into Plantation Performance:** Manual field processes leave top-level management in the dark, lacking a real-time, 360-degree view of plantation performance, which restricts informed decision-making and results in inefficiencies, reduced productivity, and unnecessary costs.
- **Inefficient Offtake Arrangements:** without reliable data on the count and quality of offtake / purchased FFBs, it's hard to manage the profitability and efficiency of offtake arrangements

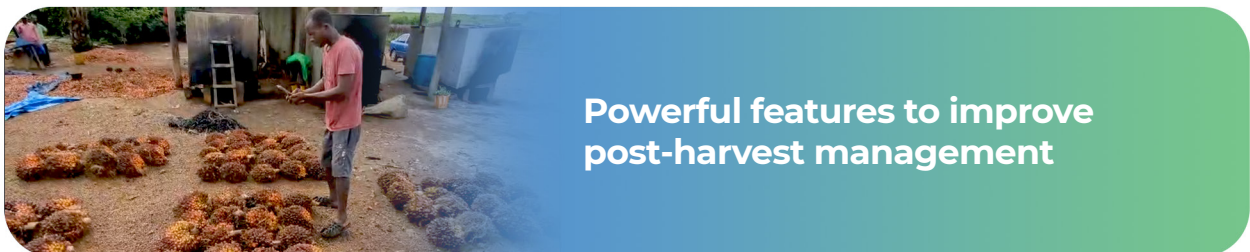
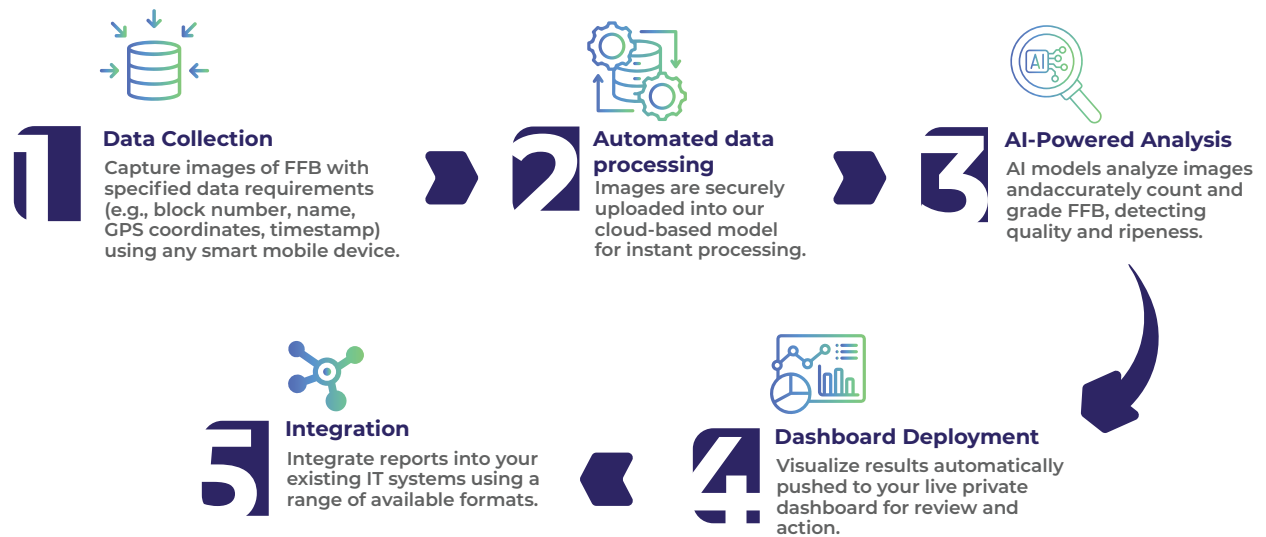
AyaGrow's FFB Automation Solution

AyaGrow offers an FFB Count and Grading solution that leverages advanced machine learning algorithms to automate and optimize the process. Here is how AyaGrow transforms your post-harvest management:

- **Automated Counting:** Utilize mobile camera imagery and AI, to accurately count FFBs in real-time
- **Precision Grading:** Evaluate the quality of FFBs based on standardized criteria (like; the number of loose fruits, and the colour of the stalk), ensuring consistent and reliable grading.
- **Real-Time Analytics:** Assess actionable insights through a user-friendly dashboard, enabling managers to make informed decisions promptly.

- **Seamless Integration:** Integrate Aya Grow with existing systems and platforms, ensuring a cohesive and efficient workflow.
- **Scalable Architecture:** Built to grow with your plantation, our scalable architecture ensures Aya Grow remains a reliable and efficient solution as your operations expand.

The AyaGrow Process: From Data to Insights



Mobile Data Collection App

- Collect data on the go using a handheld device with custom forms tailored to your requirements.
- Assign unique IDs to blocks, workers, and assets for streamlined data management.
- Offline capabilities allow you to sync data when connected to the internet.



Block-level FFB analysis

- Visualize aggregated data on a user-friendly dashboard, linking FFB count and grade to specific production areas for better decision-making. This includes:
 - Total FFB harvested
 - FFB grading classification
 - Time-series analysis of FFB



Workforce analysis

- Track workforce performance
- Total FFB harvested
- FFB grading classification
- Time-series analysis of workforce performance



AyaGrow IMS Integration

- Visualize FFB reports on a geospatial map for enhanced oversight.

Why Clients Choose AyaGrow

Experience smarter plantation management with our innovative solution. Our FFB count and grade solution can assist you with:



Identification of Poor Agronomic Practices:

Improving fresh fruit yield relies heavily on enhancing agronomic practices. Our solution helps estate managers identify areas and teams with poor agronomic practices, allowing them to quickly pinpoint inefficiencies and take corrective action. This can help bridge the annual fruit bunch yield gap by **5-10%**.



Data-Driven Decisions:

Our solution delivers real-time analytics, equipping plantation managers with vital insights to optimize yield and make informed decisions. By aggregating and analyzing count and grading data on a centralized platform, our solution provides granular block-level insights, identifying top-performing areas and guiding strategic improvements over time.



Monitoring & Auditing of Harvest Teams:

Our solution enables estate managers to monitor and audit harvest teams in real-time, ensuring accurate yield reporting, quality control, and reducing losses by up to **20%**.



More Efficient Offtake Processes:

Automatic FFB counting and grading make offtake arrangements more objective, fair, and efficient.

Make informed decisions, optimize resources, and drive your plantation's success with AyaGrow – your partner in precision agriculture. **Contact us today to start using our FFB Count and Grade solution.**

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