

FARMING ANALYTICS INTELLIGENCE

Scalable Field & Yield Performance Platform

Executive Overview

A cloud-based agricultural intelligence solution that delivers real-time visibility into crop performance, input utilization, labor productivity, and equipment efficiency.

Built on the Microsoft Azure + Power BI ecosystem, the platform consolidates field data, IoT inputs, operational logs, and financial metrics into a secure, scalable analytics layer enabling data-driven decisions from field to finance.

Core Capabilities:

- **Crop & Yield Intelligence:** Yield tracking per hectare by crop, field, and season
- **Input Optimization:** Fertilizer and pesticide usage efficiency by field
- **Equipment Monitoring:** Uptime vs. downtime tracking
- **Workforce Productivity:** Task efficiency measurement

- Labor Productivity Index
- Field Cost vs. Revenue
- Equipment Downtime

Secure Deployment & Governance:

- Azure Active Directory for user segmentation
- Row-Level Security by field, region, or department
- Secure data refresh from IoT devices and operational log systems

Metrics & Data Modelling

The solution leverages a structured Star Schema model for performance and scalability.

- **Core Fact Tables:** Yield, Labor Hours, Input Usage
- **Dimension Layers:** Field Zones, Crop Type, Task, Time

Business Impact:

- Reduced fertilizer and pesticide waste
- Optimized labor allocation and measurable productivity gains
- Improved equipment utilization and maintenance planning
- Centralized performance visibility across farms and regions

KPIs:

- Yield per Hectare
- Input Efficiency Ratio

Talk to us Today