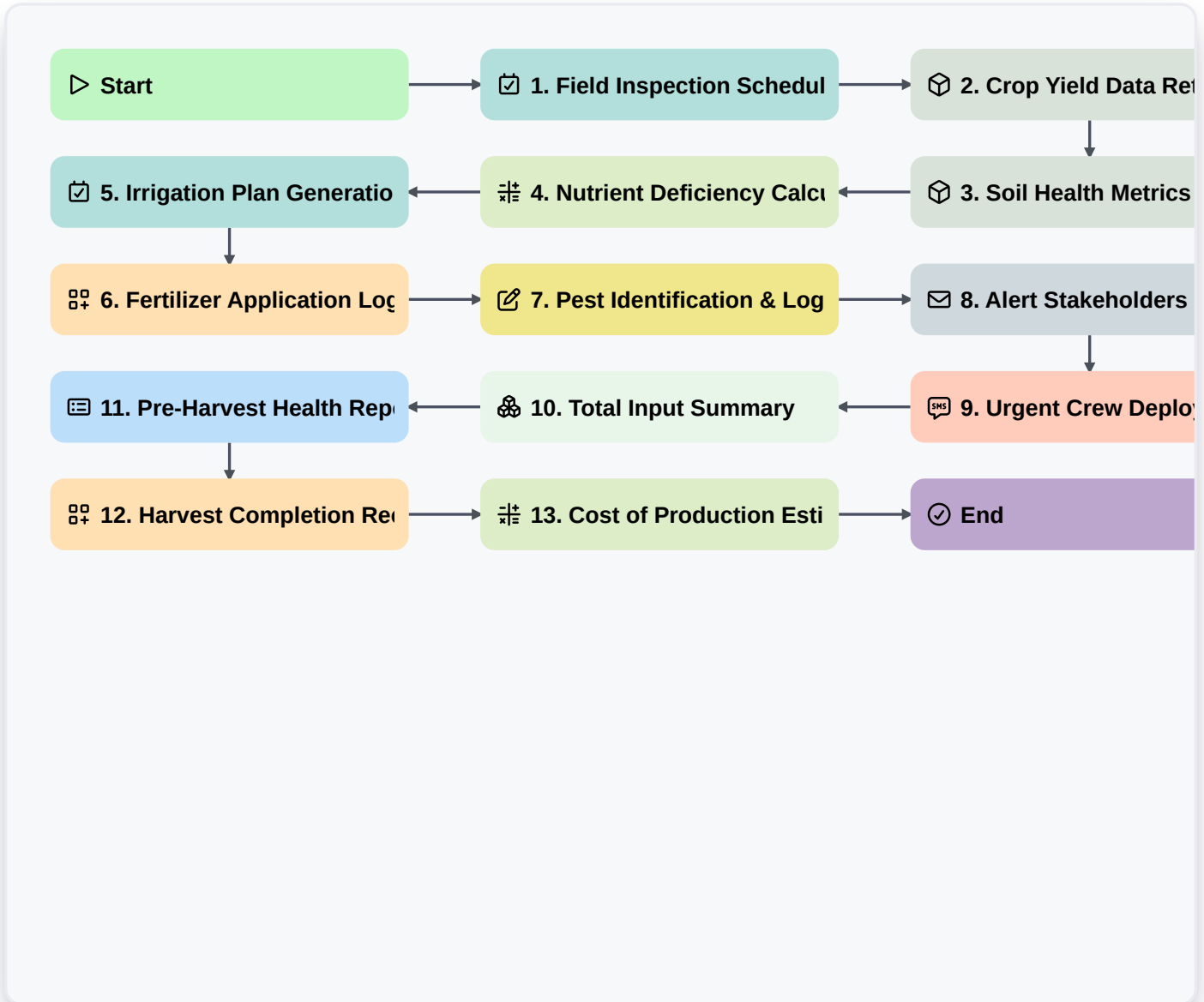


Smart Farm Operations Workflow: Optimize Agriculture Management Processes



▷ **Start**

Start of the Workflow/Process.

 **1. Field Inspection Scheduled**

Create task for agronomist to conduct physical field inspection.

 **2. Crop Yield Data Retrieval**

Get historical yield data for the specific crop and field location.

 **3. Soil Health Metrics Lookup**

Retrieve current and historical soil nutrient and moisture data.

 **4. Nutrient Deficiency Calculation**

Calculate necessary nutrient additions based on soil test results and crop needs.

 **5. Irrigation Plan Generation**

Create task for farm manager to schedule and adjust irrigation based on evapotranspiration models.

6. Fertilizer Application Log

Create record of applied fertilizer type, amount, and date.

7. Pest Identification & Logging

Update the main field record with newly identified pests and their severity.

8. Alert Stakeholders of Issues

Send email notification to farm manager and owner regarding critical issues (e.g., severe pest outbreak).

9. Urgent Crew Deployment Alert

Send SMS alert to field crew for immediate action (e.g., emergency spraying).

10. Total Input Summary

Aggregate total usage (fertilizer, water, chemicals) for the current growing cycle.

11. Pre-Harvest Health Report

Generate comprehensive report summarizing health, yield projections, and necessary actions.

12. Harvest Completion Record

Log the final harvest details, total tonnage, and quality grade.

13. Cost of Production Estimate

Estimate total operational cost per acre using logged inputs and labor hours.

End

Start of the Workflow/Process.