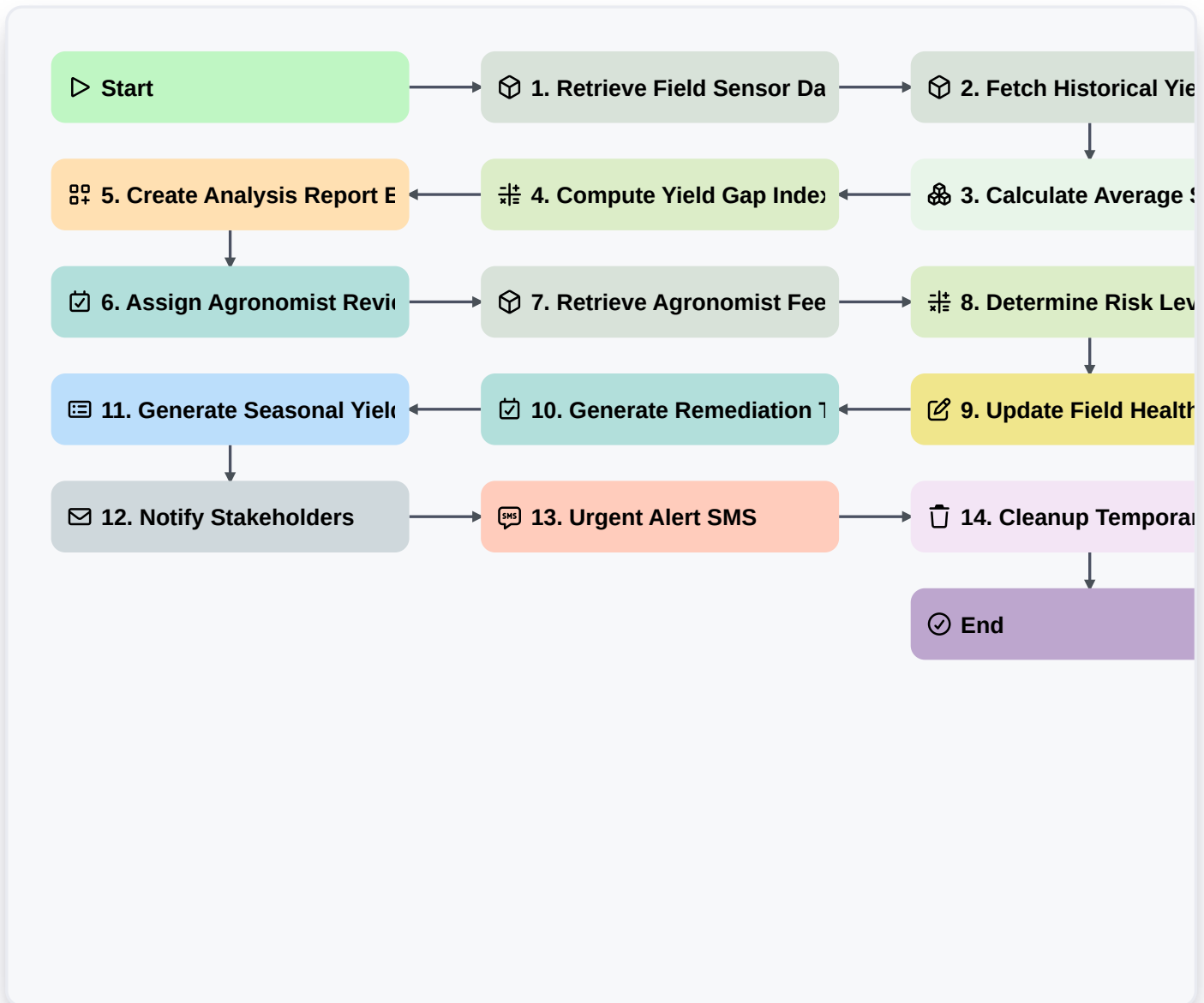


Crop Yield Monitoring And Analysis Workflow



Start

Start of the Workflow/Process.

1. Retrieve Field Sensor Data

Fetch the latest soil moisture, temperature, and humidity readings from the Sensor Data Model.

2. Fetch Historical Yield Records

Retrieve previous season's yield data for the specific field plots being analyzed.

3. Calculate Average Soil Moisture

Calculate the average moisture level from all retrieved sensor entries to determine drought risk.

4. Compute Yield Gap Index

Calculate the difference between the current predicted yield and the historical average yield.

5. Create Analysis Report Entry

Create a new record in the Yield Analysis Model containing the calculated metrics and findings.

6. Assign Agronomist Review

Create a task for the assigned Agronomist to manually verify the automated findings.



7. Retrieve Agronomist Feedback

Fetch the notes and verification status entered by the Agronomist in their task completion.

8. Determine Risk Level

Use a formula to categorize risk (Low, Medium, High) based on moisture and yield gap values.

9. Update Field Health Status

Update the 'Status' property in the Field Data Model based on the calculated Risk Level.

10. Generate Remediation Task

If risk is High, create a task for the Farm Manager to implement irrigation or fertilization.

11. Generate Seasonal Yield Report

Compile all processed analysis entries into a comprehensive seasonal performance report.

12. Notify Stakeholders

Send an email summary of the yield analysis and risk alerts to the Farm Owners.

13. Urgent Alert SMS

Send an SMS notification to the Field Supervisor if moisture levels drop below a critical threshold.

14. Cleanup Temporary Calculations

Delete temporary calculation logs once the final Analysis Report has been successfully created.

End

End of the Workflow/Process.