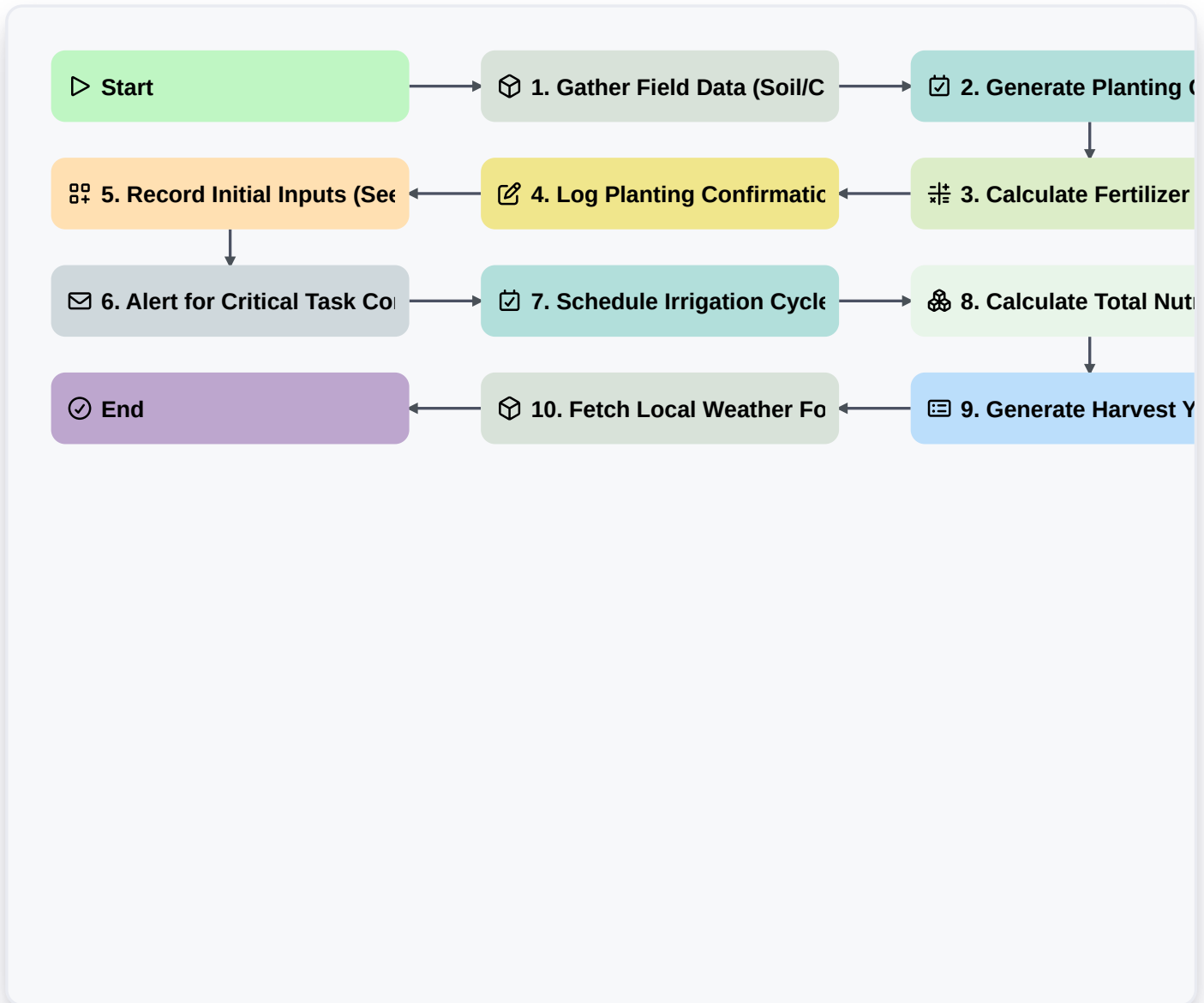


Farm Lifecycle Management Workflow For Modern Agriculture



▷ **Start**

Start of the Workflow/Process.

 **1. Gather Field Data (Soil/Crop)**

Retrieve initial soil test results or existing crop inventory data from the Farm Data Model.

 **2. Generate Planting Checklist**

Create a set of actionable tasks for the farm crew based on the chosen crop type and field size.

 **3. Calculate Fertilizer Needs**

Execute formula (Required Nutrient / Soil Test Value) to determine precise fertilizer application rates.

 **4. Log Planting Confirmation**

Update the specific field record once planting has been confirmed, including actual start dates.

 **5. Record Initial Inputs (Seeds/Fertilizer)**

Create a new inventory entry detailing the initial purchase and application of seeds or chemicals.

✉ **6. Alert for Critical Task Completion**

Send automated email notification to the farm manager when pre-harvest maintenance tasks are overdue.

📅 **7. Schedule Irrigation Cycle**

Assign recurring tasks to the irrigation department based on predicted weather and crop growth stage.

🧮 **8. Calculate Total Nutrient Usage**

Aggregate all fertilizer and pesticide application entries to determine total resource consumption for the current cycle.

📄 **9. Generate Harvest Yield Report**

Compile a comprehensive report summarizing expected vs. actual yield data upon harvest completion.

📦 **10. Fetch Local Weather Forecast**

Retrieve current and forecasted weather data to adjust spray timing or irrigation schedules.

🏁 **End**

Start of the Workflow/Process.