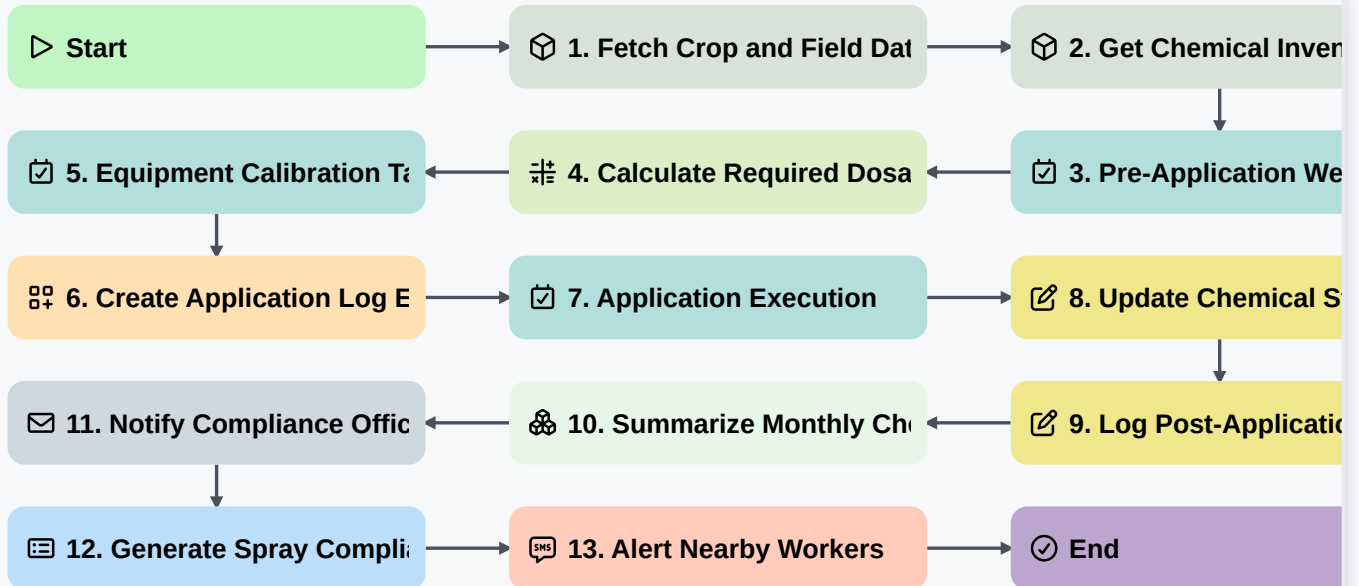


Pesticide And Herbicide Application Tracking



Start

Start of the Workflow/Process.

1. Fetch Crop and Field Data

Retrieve existing field locations and crop types from the Farm Inventory data model to ensure correct application parameters.

2. Get Chemical Inventory

Retrieve available pesticide/herbicide stocks and their active ingredient concentrations from the Chemical Database.

3. Pre-Application Weather Check

Create a task for the Field Supervisor to verify wind speed, humidity, and precipitation forecasts before spraying.

4. Calculate Required Dosage

Calculate the total volume of product needed based on field area, application rate per hectare, and concentration levels.

5. Equipment Calibration Task

Create a task for the Technician to calibrate spray nozzles and pressure regulators for the specific application rate.

6. Create Application Log Entry

Create a new entry in the Application Logs data model to record the start of the spraying process.

7. Application Execution

Create a task for the Operator to perform the actual spraying, including a checklist for safety gear (PPE) and nozzle height.

8. Update Chemical Stock Levels

Update the quantity of the used pesticide/herbicide in the Chemical Inventory data model by subtracting the amount used.

9. Log Post-Application Observations

Update the Application Log entry with end-of-task data such as actual volume used, weather conditions during spray, and any observed issues.

10. Summarize Monthly Chemical Usage

Aggregate the total volume of all pesticides used during the current month to monitor budget and usage trends.

11. Notify Compliance Officer

Send an email to the Compliance Officer containing the summary of the application for regulatory record-keeping.

12. Generate Spray Compliance Report

Generate a PDF report summarizing the field, chemical, dosage, and operator details for the completed application.

13. Alert Nearby Workers

Send an SMS to all farm workers in the vicinity to alert them of the active chemical application and required safety buffer zones.

End

End of the Workflow/Process.