



Drone Crop Inspection Checklist: Precision Agriculture Data Collection & Analysis

Pre-Flight Checks

Ensuring drone and equipment are ready for flight.

Drone Battery Level (%)

Camera Battery Level (%)

Propeller Condition (1-5, 1=Excellent, 5=Damaged)

Software Version (Drone & Camera)

- ☐ Latest
- ☐ Previous
- ☐ Unknown

GPS Status

- ☐ Acquired
- ☐ Searching
- ☐ Lost

Any Pre-Flight Issues Noted?

Write something...

Flight Planning & Permissions

Verifying flight area, airspace regulations, and necessary approvals.

Flight Date

Enter date...

Planned Flight Start Time

Airspace Class

- ☐ Class A
- ☐ Class B
- ☐ Class C
- ☐ Class D
- ☐ Uncontrolled

Altitude (Feet)

Enter a number...

NOTAM Requirements

- ☐ Required
- ☐ Not Required

Flight Authorization Document (if required)

 Upload File

Weather Conditions

- ☐ Clear
- ☐ Cloudy
- ☐ Rain
- ☐ Windy

Data Acquisition Settings

Confirming camera settings, flight path, and data resolution for optimal crop data.

Flight Altitude (meters)

Enter a number...

Camera Exposure Time (seconds)

Enter a number...

Camera Mode

- ☐ Manual
- ☐ Auto
- ☐ Custom

Bands/Filters (if applicable)

- ☐ RGB
- ☐ NDVI
- ☐ NIR
- ☐ Red Edge

Image Resolution (pixels/meter)

- ☐ Low
- ☐ Medium
- ☐ High

Overlap (lateral, %)

Overlap (front, %)

Visual Inspection – Vegetation Health

Observing and documenting visible signs of stress, disease, or nutrient deficiencies.

Presence of Visible Stress Symptoms?

- ☐ None
- ☐ Yellowing (Chlorosis)
- ☐ Wilting
- ☐ Stunted Growth
- ☐ Leaf Scorch
- ☐ Other (Specify in Long Text)

Describe any other observed stress symptoms:

Write something...

Estimated Percentage of Affected Area (if applicable):

Enter a number...

Suspected Cause (based on visual cues):

- ☐ Nutrient Deficiency
- ☐ Disease
- ☐ Pest Infestation
- ☐ Water Stress
- ☐ Unknown

Upload Supporting Photos (close-up views)

 Upload File

Overall Crop Health Rating (Visual)

- ☐ Excellent
- ☐ Good
- ☐ Fair
- ☐ Poor

GPS Coordinates of Observed Area

 [Set My Current Location](#)



Data Logging & GPS Accuracy

Monitoring GPS signal strength and ensuring accurate geotagging of captured data.

GPS Signal Strength (dB)

Enter a number...

Altitude (meters)

Enter a number...

Flight Speed (km/h)

Enter a number...

GPS Accuracy (estimated)

☐ < 1m

☐ 1-3m

☐ 3-5m

☐ > 5m

Any GPS Error Messages?

Write something...

Time of GPS Data Recording

Enter date...

Post-Flight Data Download & Organization

Downloading imagery, organizing files, and noting any discrepancies.

Data Download Start Time

Data Download End Time

Total Data Download Size (MB)

Enter a number...

Download Location (If Applicable)

 [Set My Current Location](#)



Data Format(s) Downloaded

- ☐ Orthomosaic
- ☐ NDVI
- ☐ RGB
- ☐ DSM
- ☐ Contour Maps

Screenshot of Download Summary (Optional)

 [Upload File](#)

Equipment Maintenance & Battery Status

Checking drone health, camera lens, and battery levels for future flights.

Battery Voltage (Post-Flight)

Enter a number...

Flight Time (Minutes)

Enter a number...

Propeller Condition

- ☐ Good
- ☐ Minor Damage
- ☐ Significant Damage - Replace

Gimbal Stability

- ☐ Stable
- ☐ Slight Wobble
- ☐ Significant Instability

Last Propeller Replacement Date

Enter date...

Notes on Drone Performance or Issues

Write something...

Battery Cycle Count

Environmental Conditions & Observations

Documenting weather, soil conditions, and any notable observations impacting crop health.

Date of Observation

Time of Observation

Air Temperature (°C)

Soil Temperature (°C)

Wind Speed (km/h)

Cloud Cover (%)

Rainfall (Pre/Post Flight)

- ☐ No Rainfall
- ☐ Light Rainfall
- ☐ Moderate Rainfall
- ☐ Heavy Rainfall

Additional Observations/Comments

Write something...