



Farm Greenhouse Climate Control Monitoring Checklist 2026

Temperature Monitoring & Regulation

Routine checks of ambient air temperature, substrate temperature, and the functionality of heating/cooling systems to prevent thermal stress.

Inspection Date

Time of Reading

Current Ambient Air Temperature (°C/°F)

Substrate/Root Zone Temperature

Heating System Status

- ☐ Operational
- ☐ Maintenance Required
- ☐ Offline/Faulty

Temperature Deviation Observations

- ☐ Fluctuations detected
- ☐ Heat spikes observed
- ☐ Unusually low nighttime temperatures
- ☐ No deviations noted

Temperature Incident Notes

Write something...

Inspector Signature

Humidity & Vapor Pressure Deficit (VPD) Control

Monitoring relative humidity levels and managing misting/fogging systems to maintain optimal transpiration rates and prevent fungal growth.

Current Relative Humidity (%)

Enter a number...

Calculated VPD (kPa)

Enter a number...

Humidity Level Status

- ☐ Optimal
- ☐ Too Low (Dry)
- ☐ Too High (Humid)
- ☐ Critical Alert

Fogging/Misting System Observations

Write something...

Action Items Taken

- ☐ Increased Ventilation
- ☐ Activated Misters/Foggers
- ☐ Adjusted Shading
- ☐ No Action Required

Technician Verification

CO2 Enrichment & Ventilation Management

Verification of CO2 enrichment levels,-ventilation fan operation, and automated window/shading deployment for gas exchange optimization.

Inspection Date

Enter date...

Current CO2 Level (PPM)

Enter a number...

Ventilation Fan Status

- ☐ Operational
- ☐ Maintenance Required
- ☐ Non-Functional

CO2 Enrichment Components Checked

- ☐ CO2 Tank/Cylinder Levels
- ☐ Gas Regulator Pressure
- ☐ Injection Nozzle Functionality
- ☐ CO2 Sensor Accuracy

Ventilation & CO2 Observations

Write something...

Supervisor Verification

Irrigation & Fertigation System Integrity

Inspection of drip lines, emitters, nutrient dosing accuracy, and moisture sensor calibration within the greenhouse substrate.

Inspection Date

Irrigation Zone/Bed ID

- ☐ Zone A - North Greenhouse
- ☐ Zone B - South Greenhouse
- ☐ Zone C - Tropical Wing

Measured Fertigation EC (Electrical Conductivity)

Measured Irrigation pH Level

System Component Inspection Checklist

- ☐ Drip Emitters Flow Check
- ☐ Main Line Pressure Verification
- ☐ Filter/Screen Cleaning
- ☐ Nutrient Tank Level Verification
- ☐ Solenoid Valve Functionality

Discrepancies or Leakage Observations

Write something...

Photo Evidence of Irrigation Setup

 Upload File

Technician Signature

Lighting & Photosynthetic Active Radiation (PAR) Audit

Assessment of supplemental lighting schedules, grow light intensity (PPFD), and shading cloth deployment for light management.

Audit Date

Enter date...

Light Source Type

- ☐ LED Grow Lights
- ☐ HPS (High Pressure Sodium)
- ☐ Fluorescent
- ☐ Natural Sunlight Only

Measured PPFD ($\mu\text{mol}/\text{m}^2/\text{s}$)

Enter a number...

Maintenance Tasks Completed

- ☐ Cleaned light fixtures/covers
- ☐ Checked ballast functionality
- ☐ Adjusted hanging height
- ☐ Replaced faulty bulbs/LED diodes

Observations & Discrepancies

Write something...

PAR Meter Reading Photo

 Upload File

Technician Approval

Sensor Calibration & Automated Controller Review

Routine calibration of digital hygrometers, thermometers, and PLC (Programmable Logic Controller) software integrity checks.

Calibration Date

Sensor Type Calibrated

- ☐ Temperature Sensor
- ☐ Humidity/Hygrometer Sensor
- ☐ CO2 Sensor
- ☐ Soil Moisture/Substrate Sensor
- ☐ Light/PAR Sensor

Deviation Found (Celsius/Percentage)

Calibration Notes & Adjustment Details

Write something...

Upload Calibration Certificate/Log

 Upload File

Technician Signature

Greenhouse Structure & Perimeter Security

Physical inspection of glazing integrity, structural frames, door seals, and pest-proof screening to maintain the internal microclimate.

Structural Inspection Checklist

- ☐ Glazing/Plastic Film Integrity (No tears or leaks)
- ☐ Frame and Support Stability
- ☐ Door and Gate Seals (Pest prevention)
- ☐ Ventilation Opening/Closing Mechanism
- ☐ Shade Cloth Condition

Identified Damage or Leaks

Write something...

Notes on Perimeter Security Vulnerabilities

Write something...

Photo Evidence of Structural Repairs Needed

 Upload File

Last Structural Inspection Date

Enter date...

Inspector Verification

< Previous

> Next

✓ Finish

 Generate Sample Report