



Farm Greenhouse Climate Control And Humidity Management Checklist 2026

Temperature Regulation & Monitoring

Verification of thermostat accuracy, heater functionality, and cooling system performance to maintain optimal thermal ranges.

Inspection Date

Current Ambient Temperature (°C/°F)

Target Temperature Setpoint

Heating System Status

- ☐ Operational
- ☐ Maintenance Required
- ☐ Offline/Repairing

Temperature Anomalies Detected

- ☐ Hot Spots
- ☐ Cold Drafts
- ☐ Sensor Inaccuracy
- ☐ None

Maintenance Notes & Observations

Write something...

Inspector Signature

Humidity & Vapor Pressure Deficit (VPD) Control

Inspection of humidifiers, dehumidifiers, and misting systems to ensure moisture levels prevent pathogen growth and dehydration.

Current Relative Humidity (%)

Enter a number...

Calculated VPD Value (kPa)

Enter a number...

Dehumidifier Operational Status

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

Humidity Control Hardware Check

- ☐ Misting Nozzles Intact
- ☐ Humidifier Reservoir Full
- ☐ Dehumidifier Filters Clean
- ☐ Fogging System Pressure Stable

Observations of Condensation or Surface Moisture

Write something...

Technician Verification

Ventilation & Air Circulation

Assessment of exhaust fans, intake vents, and horizontal airflow (HAF) fans to ensure consistent air movement and CO2 distribution.

Ventilation Fan Operational Status

- ☐ Fully Operational
- ☐ Operational with Issues
- ☐ Non-Functional

Air Exchange Rate (Air Changes Per Hour)

Enter a number...

Ventilation Components Inspected

- ☐ Exhaust Fans
- ☐ Intake Vents
- ☐ Horizontal Airflow (HAF) Fans
- ☐ Shading Screens
- ☐ Automated Louvers

Observed Airflow Obstructions or Blockages

Write something...

Last Ventilation System Maintenance Date

Enter date...

Technician Verification

Automated Sensor & Controller Calibration

Routine testing and calibration of digital hygrometers, thermometers, and automated greenhouse control software sensors.

Calibration Date

Sensor Deviation Margin

Sensor Status

- ☐ Fully Calibrated
- ☐ Requires Re-calibration
- ☐ Faulty/Needs Replacement

Sensors Inspected

- ☐ Temperature Probes
- ☐ Humidity/Hygrometers
- ☐ CO2 Monitors
- ☐ Light (PAR) Sensors
- ☐ Soil Moisture Probes

Calibration Notes & Discrepancies

Write something...

Technician Authorization

Shading & Solar Radiation Management

Inspection of automated shade cloths, thermal screens, and glazing cleanliness to optimize light transmission and heat mitigation.

Inspection Date

Enter date...

Shade Cloth Integrity Status

- ☐ Excellent (No tears/damage)
- ☐ Fair (Minor wear detected)
- ☐ Poor (Requires immediate repair)
- ☐ Critical (Replacement needed)

Current Shade Percentage Coverage (%)

Enter a number...

Components Inspected

- ☐ Automated Shade Cloths
- ☐ Thermal Screens
- ☐ Aluminized Reflective Film
- ☐ Greenhouse Glazing/Glass Cleanliness

Maintenance Notes & Repair Requirements

Write something...

Inspector Signature

Irrigation & Substrate Moisture Integration

Checking the synchronization between climate settings and automated drip or ebb-and-flow irrigation schedules.

Irrigation Schedule Date

Enter date...

Substrate Moisture Content (%)

Enter a number...

Irrigation Method Used

- ☐ Drip Irrigation
- ☐ Ebb and Flow
- ☐ Mist/Fogging System
- ☐ Overhead Sprinkler

Nutrient Solution Checkpoints

- ☐ EC (Electrical Conductivity) Verified
- ☐ pH Level Adjusted
- ☐ Fertigation Pump Functioning
- ☐ Filter Cleanliness Checked

Observations and Discrepancies

Write something...

Technician Verification

Emergency Backup & Power Redundancy

Testing of backup generators, battery reserves, and emergency alert systems for extreme weather or power failure scenarios.

Last Generator Load Test Date

Backup Power Status

- ☐ Operational
- ☐ Degraded - Maintenance Required
- ☐ Non-Functional - Urgent Repair

Critical Backup Systems Inspected

- ☐ Uninterruptible Power Supply (UPS)
- ☐ Diesel/Gas Generator
- ☐ Battery Storage Units
- ☐ Emergency Lighting

Fuel Level Percentage (%)

Discrepancies or Identified Risks

Write something...

Inspector Authorization

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👍 Finish

🔧 Generate Sample Report