

Routine Greenhouse Maintenance Checklist

This checklist is intended as a general guide for greenhouse maintenance and may not cover all specific systems, structures, or regional requirements. Always refer to your equipment manuals and consult with a qualified professional for detailed inspection and servicing needs unique to your operation.

Warning: This work must be performed by a qualified or maintenance technician

This is meant to be a living document to help current and future growers.

If you have any recommendations on other Maintenance to be added to this document please email: Info@ApexEquipmentSolutions.com

Greenhouse Covering (Glazing) Material

Poly Glazed Greenhouses:

- ☐ Inspect visually. Look for damage such as torn film.
- ☐ Secure clips. Ensure all glazing clips are firmly in place.
- ☐ Manage spray-on shading. Wash off summer-applied shading in the fall using a cleaning solution or commercial shade remover. Spray, let sit, then rinse thoroughly.
- ☐ Maintain poly covers. Repair small holes or tears with polyethylene tape. Re-tighten loose film by adjusting lock strips and stretching the plastic taut.
- ☐ Replace any poly older than four years.
- ☐ Clean and check the inflation blower and maintain pressure similar to an inflated balloon.

Hard Glazed (Glass, Polycarbonate, Acrylic, etc...) Greenhouses:

- ☐ Inspect visually. Look for damage such as cracked or missing polycarbonate panels, or broken/slipped glass.
- ☐ Test bar caps. For glass-glazed greenhouses, check that bar caps are tight and secure.
- ☐ Clean panels. Use mild detergent and lukewarm water with a soft sponge to wash polycarbonate and acrylic panels.
- ☐ Manage spray-on shading. Wash off summer-applied shading in the fall using a cleaning solution or commercial shade remover. Spray, let sit, then rinse thoroughly.

Steel Sub-Structure

- ☐ Paint or clean. Repaint or stain wood frames in summer. For aluminum, clean corrosion and surface damage as needed.
- ☐ Inspect low points. Check corners and ground-level frame areas for rust, mold, or rot—especially in wood frames.
- ☐ Replace damaged parts. Bent or dented supports can weaken the structure. Replace any compromised bracing immediately.
- ☐ Tighten joints. Heat and wind can loosen collar ties and truss bolts.

Air Circulation and Ventilation

- ☐ Lubricate components - Apply grease to bearings, rack and pinions, arm hinges, and shutter hinges. Check fluid levels in gearboxes.
- ☐ Seal loose vents. Add weatherstripping to poorly sealing vents to reduce air infiltration.
- ☐ Verify automation. For automated vents, confirm minimum and maximum stops are accurate.
- ☐ Check manual parts. Test hinges, latches, and linkages on windows and louvers. Grease as needed.
- ☐ Inspect fans (power off). Look for worn or loose belts, clean fan blades, and tighten hardware.
- ☐ Clean HAF fans. Follow lockout/tagout procedures for hardwired units. Clean blades and guards, and oil bearings (if not sealed).
- ☐ Clean cooling pads. Disinfect evaporative pads to prevent mold and maintain airflow.

General Maintenance

- ☐ Clean floors. Regularly wash concrete floors with soap and disinfectant. Focus on corners and under benches.
- ☐ Repair cracks. Remove weeds and seal cracks with caulk or concrete repair material. Use epoxy adhesives for foundation cracks.
- ☐ Insulate floors. To prevent heat loss, insulate perimeter concrete down to the frost line. Some growers also insulate beneath the slab.
- ☐ Check door seals. Add or replace weatherstripping. Use brush-type seals for sliding doors, and upgrade worn doors to insulated steel if needed.

Pest and Disease Control

- ☐ Disinfect irrigation systems. Algae buildup in tanks and lines can attract pests like fungus gnats.
- ☐ Seal gaps. Inspect for small holes around the base, frame, and glazing. Fill them to keep pests out.
- ☐ Deep clean. Regular cleaning removes mold, disease, and overwintering pests.
- ☐ Monitor plants. Isolate or dispose of plants showing signs of disease or infestation immediately.
- ☐ Use organic pest controls. Consider introducing natural predators like ladybugs or lacewing larvae for eco-friendly pest management.

Unit Heaters

General Maintenance:

- ☐ Check equipment for any physical damage that may have occurred over the summer. This should include damage to sheet metal, fans and air movers, wiring, gas pipes, vent systems, and equipment supports.
- ☐ Look for cleanliness of heat exchanger and burners.
- ☐ Check to make certain the vent system has not been compromised and is in the proper working order.
- ☐ Check for obstructions that may be blocking the air inlet or discharge paths of the heat exchanger.

Gas Supply:

- ☐ Check to make sure that gas mains are turned on.
- ☐ Check inlet pressure and manifold gas pressure to heating equipment to make sure it is properly set.
- ☐ Check gas regulators to be certain regulator vents are not plugged.
- ☐ If propane is being used, check main regulator on tanks for proper pressure settings and check for damage to regulators.
- ☐ Check propane tanks for proper size and liquid propane levels.

Gas Controls:

- ☐ Inspect all gas connections for good tight fits.
- ☐ This includes pipe connections to the equipment as well as pilot tubing connections at the gas valve and at the pilot burner.
- ☐ Inspect the main burner gas orifices to make sure they are not blocked with spider webs. Check pilot orifice for obstructions if pilot cannot be lit or will not stay lit.

- ☐ After visual and physical inspection of the gas connection, turn on the gas and check for gas leaks using a water/soap solution.
- ☐ Do not check for gas leaks with an open flame.
- ☐ Check electrical connections to gas valve.
- ☐ Check thermocouple, pilots, flame sensors, ignition cables, etc. for cleanliness and tightness of connections.

Air Movers:

- ☐ Lubricate motor bearings if they are not the permanently lubricated type.
- ☐ With the power turned off, check to see that the motor shaft turns freely and does not bind. This can be done by rotating the fan or blower wheel by hand. Inspect the fan or blower wheel to make sure they are not damaged or binding.
- ☐ Check to make certain fan is not loose on motor shaft. If blower units are used, make certain the blower and motor pulleys are secure.
- ☐ On blower units, check for proper belt tension and also look for signs of belt wear.
- ☐ Check power connections to motor to ensure they are secure and have not vibrated loose over the past heating seasons.

Note: Equipment using belt drives should have the belt tension checked on initial start-up. Periodic inspection should be made during the heating season to ensure continued proper operation.

Condensate Removal & Dispos. Systems:

- ☐ If the units are gas-fired condensing units, check the following items:
- ☐ Make sure the condensate lines are clear of obstructions and free flowing.
- ☐ Assure the condensate drain line “P” trap has been primed and filled with water.
- ☐ Check the condensate overflow switch to make sure it is working properly.
- ☐ If the unit(s) has been provided with a condensate removal pump, check to make sure the pump is working properly and has not been damaged.

Thermostats:

- ☐ Check for general cleanliness.
- ☐ Check wiring to and from thermostat.
- ☐ Check thermostat for proper temperature setting.

Gas Burners:

- ☐ Inspect the burner for general cleanliness. If the burner requires cleaning, clean with a stiff brush (not a wire brush).
- ☐ Inspect inside of burner tubes as much as possible. During the summer months it is not uncommon to find that spiders or mice have taken up residence inside the burner.
- ☐ Inspect burner for proper location making sure that it is properly aligned and securely fastened.

Vent Systems:

- ☐ Check to make certain vent system is clear and free of any obstructions.
- ☐ Be sure all connections are secure and tight.
- ☐ Inspect the entire vent system for signs of corrosion, damage, and all potential issues that could lead to vent products entering the heated space or vent products recirculating into combustion air.
- ☐ Clean vent pipe and clean out cap, if necessary

Record Keeping

- ☐ It is recommended that a record be kept of the date the equipment was last checked and serviced. – If you don't have one make one.
- ☐ Follow all instructions and cautions in the installation, operation, and service manuals originally provided with the equipment.

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