

Liquids should not be handled immediately after the autoclave door has been opened. This prevents the super-heated liquid from flashing.

- greenhouse, be sure to consume an adequate amount of water. If potable water is not available, then make sure you have a sufficient amount on hand.
- Make sure air-cooling systems are functional and checked on a regular basis.
- Take breaks and cool off in a shaded place.
- Signs and symptoms of heat stress include headaches, dizziness, confusion, and pale, clammy skin. Please refer to the *Heat Stress* fact sheet for more information.

**Back Safety**

- Bending with the knees reduces the likelihood of back strain when moving heavy objects around.
- Hand trucks can reduce back fatigue and muscle strain for those moving heavy pots.
- Cuts, punctures wounds, and slip-trip-fall incidents are the most common accidents that occur within the greenhouse.
- Short breaks during extended periods of standing and repetitive motion activities such as pruning, shoveling, stooping, etc. can also reduce muscle fatigue and stress on tendons.



**Getting Assistance**

Contact EH & S if you have any questions about seasonal greenhouse technician safety.

**Environmental Health and Safety**

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*Environmental Health and Safety*

# Greenhouse and Growth Chamber Technician



## Safety in Closed Spaces

**Worker Protection Standard (WPS)**

The Worker Protection Standard is designed to protect you from potential exposure to chemical pesticides, herbicides, and fertilizers while working in field and greenhouse activities.

- WPS and pesticide safety information is required to be accessible and understandable.
- Hazard Communications training is required before entry or handling materials in a treated area.
- Get appropriate training and your supervisor's approval before operating any equipment.
- Use personal protective equipment (PPE) for early entry activities and general protective clothing for 30 days after a restricted entry interval (REI) or treatment.
- Follow proper decontamination procedures.

**Restricted Entry Intervals (REI)**

A REI...

- Refers to the length of time immediately after a chemical application when entrance into the greenhouse is restricted to authorized personnel.
- Appropriate PPE must be worn if entering before the expiration of the REI on the pesticide label.
- Entry is restricted until the date and time posted on the warning sign, the inhalation exposure level on the

chemical label has been reached, and ventilation criteria have been met.

### **Personal Protective Equipment (PPE)**

- PPE for early entry into any greenhouse or growth chamber that has been treated with a pesticide includes long pants, long-sleeved shirts, and closed-toe shoes.
- Do not enter a treated area under an REI without PPE specified by the chemical label.
- Working with agricultural chemicals or handling treated items can require respirators and chemically resistant PPE as specified by the chemical label.
- If you require a respirator, a medical questionnaire, fit test, and training are mandatory through the WSU Respiratory Protection Program. Contact EH&S for more information.
- Appropriate dust masks can prevent particulate matter from entering breathing passages when working with potting soil mixes.
- Autoclave users should wear splash goggles, non-asbestos containing hot mitts and apron, closed-toe shoes, long pants, and a long-sleeved shirt.
- Be aware of potential latex allergy problems. More information can be found in the **Latex Allergy** fact sheet.



### **Signage**

- Remove all signage once the REI is no longer applicable.
- State what chemical was applied, the REI, the date and time it was applied, when the building can be re-entered and contact information.
- When a greenhouse has been treated with agricultural chemicals, post warning signs at all outside entrances to the building.



### **Ventilation**

- Keep the units clean and properly maintained.
- Unsanitary air-cooling systems and standing water can increase mold and mildew growth.
- Report leaks and standing water to maintenance staff.

### **Pesticide Applications and Storage**

- Pesticide applications are performed by licensed applicators or individuals under the direct line of sight of a licensed applicator.
- The chemical label should always be checked for the hazards, PPE required, and the length of the REI.
- Greenhouse applications of agricultural chemicals have stringent ventilation regulations because activity occurs within a closed space. Plants in poorly ventilated spaces

should be sprayed outside and then brought back in after the REI has expired.

- Unused tank mixes must be re-used or properly disposed of.
- Pesticide sprayers should be clearly marked and stored separately from other greenhouse equipment.
- Pesticides should be stored in a locked room or cabinet in a cool, dry location with good ventilation. The cabinet or room should be properly signed.
- A record of all agricultural chemical application activity should be maintained stating what was applied, when it was applied, and who applied it.

### **Planting and Plant Care**

- Store all gardening implements in one location. Wall mounted tools should be fastened securely to the wall.
- Be aware of potential electrical hazards and use ladder safety when changing light bulbs. Used fluorescent lamps may be classified as universal waste. Check with your facility manager or EHS before disposing in trash receptacles.
- Use caution when handling hand pruners, loppers, or other sharp tools.
- Water splashed on greenhouse walk ways can create slip-trip-fall hazards. Exercise caution when walking on wet pathways and use appropriate footwear with non-skid soles.

- Use Ground Fault Circuit Interruption (GFCI) protected outlets with extension cords if using electrical tools near wet surfaces.
- Do not eat, drink, smoke, or apply cosmetics, etc. when handling treated plants or soils. Always wash hands afterwards to remove any possible chemical residues.
- Do not drink water from greenhouse faucets unless a “Potable Water” sign is present. Irrigation water is often piped into greenhouses and is not safe for human consumption.



### **Autoclaves**

- Do not place sealed containers within the autoclave. This can cause an explosion and create a serious hazard.
- Sharp objects that are placed in a bag for autoclaving present puncture or cut hazards. Placement of sharps in a rigid sharps container can minimize the hazard.
- Glass breakage or steam burns can result if the autoclave door is opened too quickly. Wait until the pressure gauge reads zero and open the door slowly to release remaining steam gradually.

