

Environmental Awareness Training

Common greenhouse activities can have environmental impacts that we might not even notice. Here are some ways to avoid them.

Wastewater and Drains

Water use and drainage occur almost constantly in a greenhouse. Here's how you can prevent it from contaminating water resources:

- Know the disposal policy for your greenhouse – what can go down the drains
- Follow the signage on sinks for what is allowed in those drains
- Pay attention to what is on the floor and what could be washed down the drain with cleaning or watering water
- Don't wash equipment or pots outside to prevent washing pollutants into surface water

Air resources

We often don't consider sources of air pollution in a greenhouse or head house.

- Know which equipment could be a source of air pollutants – generators, furnaces, boilers, heaters, equipment containing refrigerants, etc. – and report any unusual emissions

Petroleum and Chemical Storage and Spill Management

Preventing and managing spills of petroleum and chemicals such as pesticides is essential in preventing environmental impacts.

- Keep good records of any chemicals or petroleum resources stored at the greenhouse
- Make sure that secondary containment systems are used
- Report any unlabeled containers to supervisor/greenhouse manager
- Know the disposal policy for unwanted or obsolete chemicals
- Know where spill kits, SDS sheets and emergency phone numbers are kept

Waste Disposal Sites

Plant materials and other wastes can have environmental impacts if they are not disposed of properly and kept in an appropriate area.

- Know where all types of wastes are to be disposed of and report any wastes in inappropriate areas to supervisor/greenhouse manager.

Transgenic plants

Transgenic materials pose a particular danger to the environment as they may seem no different from other plants growing in the greenhouse.

- Do not remove any transgenic plant material from a greenhouse even if there is an accident unless told to by manager/supervisor
- Do not enter any greenhouse containing transgenic plants unless you have received training in appropriate management techniques from the supervisor/greenhouse manager.

Environmental Awareness Training

Requirements for greenhouse managers

Wastewater and Drains

- Know the type of discharge points in your greenhouse – sanitary sewer, septic system, storm sewer, surface water – and where any wastewater may be released to the environment
- Know of any permits on drains in your greenhouse and how that affects what they can be used for
- Know the disposal policy for what is allowed down the drains or can be drained onto floors or outside – leachate, soil, pesticides or other chemicals, etc. –and use it for training
 - [Cornell EHS Disposal of Non-hazardous Waste Down Sanitary Sewer for Ithaca Campus](#)
- Post signage for sinks or drains which have specific limitations on what can be disposed of in them
- Train employees in wastewater and drain management

Air resources

- Create a list of any equipment that could be a source of emissions
 - generators, furnaces, boilers, gas fired appliances, soil steamers?, space heaters, equipment containing refrigerants such as freezers, refrigerators, air conditioners
- Follow an appropriate maintenance schedule for that equipment in order to prevent excess emissions
- Know of any permits on emissions for equipment in your greenhouse and how that affects its use
- Train employees in preventing emissions

Petroleum and Chemical Storage and Spill Management

- Create and use a record keeping system for any chemicals or petroleum products stored at the greenhouse
- Recycle any used oil that can be recycled
 - [Cornell R5 Operations Recycle How-To's](#)
- Follow the disposal policy for unwanted or obsolete chemicals stored at the greenhouse and for used oil
 - [Cornell Hazardous Waste Disposal Procedures](#)
- Follow any requirements for inspections of chemical and petroleum storage areas
- Install secondary containment systems for all chemicals and petroleum products stored at the greenhouse
- Label all chemical and petroleum product containers with appropriate hazard information
- Ensure that spill kits are available, maintained and located near potential hazards, SDS sheets are available and accessible in an emergency, and emergency telephone numbers are posted in an accessible location.
[Cornell EHS Research Safety Data Sheets \(SDS\) - Chemwatch](#)
- Train employees in petroleum and chemical handling and storage, and spill management

Safety, Health and Environmental Management for Cornell Greenhouses

Waste Disposal Sites

- Create appropriate disposal sites for plant material, including compost, and other wastes which prevent any environmental contamination.
- [Cornell Greenhouses Housekeeping, Recycling, and Composting](#)

Transgenic plants

- Train staff in appropriate practices for managing greenhouses that contain transgenic materials.
 - Best Management Practices [BMPs for Use of Transgenic Plant Materials in Greenhouses](#)
- Limit access to greenhouses that contain transgenic materials to necessary greenhouse staff
- Use appropriate methods to make all transgenic materials biologically inactive before disposal outside the greenhouse