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Greenhouse Safety Survey Checklist

This document is a self-survey checklist for greenhouse personnel to complete periodically. 'Yes' = satisfactory, 'No' = unsatisfactory or enter N/A in the 'Notes' column if not applicable. Correct all unsatisfactory items after surveys are completed. Documentation of these surveys must be kept on file for at least three years. Address questions and concerns to ISU Environmental Health and Safety: ehsinfo@iastate.edu or 294-5359.

Name of Inspector:_	Date:
Location Surveyed:_	

Documentation

Criteria	Notes	Yes	No	Date Corrected
<u>Chemical/biological</u> materials inventory is current and on file with EH&S				
Emergency action plan is customized, updated, and posted on the inside of greenhouse exit(s)				
All necessary signs/posters are present on the entry door and within the greenhouse, including contact information, permits, NFPA sign, PPE requirements, and other warnings/notifications				
Signage indicates that all water supplies to all greenhouses are for plant usage only and greenhouse users and visitors must not drink from any hose				
Current safety training records are available, including certificates for EH&S training				
All greenhouse users have minimum required training, such as the Federal Worker Protection Standard (WPS), Fire Safety and Extinguisher Training, Heat related illness training, Emergency Response Guide video, and Greenhouse Safety Fundamentals and greenhouse managers/supervisors can access them as hard copies or electronic copies				
Standard Operating Procedures have been developed and updated for all hazardous materials, processes, and equipment.				
Training on all applicable SOPs is documented for all greenhouse personnel				
Hazard inventory form (occupational medicine) has been completed by all greenhouse employees				
Safety Data Sheets (SDS) are available for all hazardous chemical/biological materials present				

Fire & Life Safety

Criteria	Notes	Yes	No	Date Corrected
Fire doors are kept closed				
Fire extinguishers are charged and accessible				
Electric items are in good condition				
Extension cords are only used for less than three days				
Extension cords are not used for high-voltage or large equipment (oven, refrigerator, etc.)				
Power strips are only used for sensitive equipment and office equipment				
Power strips/cords are not daisy-chained together				
Exits and aisles are unobstructed				
Greenhouse is clean and uncluttered				
Evacuation routes are posted and users have received evacuation instructions.				
Eyewash and safety shower are available, unobstructed and eyewash flushed monthly (documented) by greenhouse personnel				

General Safety

Criteria	Notes	Yes	No	Date Corrected
Good housekeeping is in evidence. (Exits and aisles are unobstructed. Areas are clean, uncluttered and trash is properly disposed. Benches and area around plants free of debris)				
Greenhouse doors are locked when unoccupied				
Work practices are performed safely, and SOPs are followed				
Food, beverages, tobacco, and cosmetics are absent from the research areas of the greenhouse				
Sink, soap, and paper towels are available in the greenhouse				
Spills are reported to the supervisor, and cleaned up quickly and appropriately				
PPE is available, in good shape and stored properly				
Required PPE is worn in the greenhouse				
Disposable PPE (such as gloves) is not reused				
PPE is removed before leaving the greenhouse				
Hands are washed before leaving the greenhouse				

Open-toed footwear is discouraged; use of non-skid footwear is encouraged in the research areas of the greenhouse		
Greenhouse users and visitors are made aware of safety hazards of wet floors through training and signage		

Equipment

Criteria	Notes	Yes	No	Date Corrected
Spill control kit is available and fully stocked. Spill kits appropriate for pesticide spills are available at the storage area in a demarked area Appropriate neutralizer for acids/bases is available if any acids or bases are used in the greenhouse				
First aid kit is available and fully stocked				
Ventilation is operational and appropriate for the task				
Refrigerators are properly labeled (no food/drink, no volatile chemicals, etc.)				
Machine and power tools are fitted with appropriate guards				
Ladders are maintained and inspected regularly				
Machines are securely anchored				
Tools are in good condition and used properly				
Specific lockout/tagout procedures are available for covered equipment				
Water hoses are kept free from walkways; nozzles are kept off the floor; hose integrity is maintained; hoses are hung properly as to not fall on the floor; water pressure is turned off while not in use				

Pesticides, Fertilizers & Other Chemical Management and Storage

Criteria	Notes	Yes	No	Date Corrected
Pesticide applications are made by certified pesticide applicators				
Labelled designated storage areas for pesticides are locked and have access to trained personnel only				
Pesticide storage is constructed prevent vermin access				
Pesticides and fertilizers stored in separate designated storage areas				
Pesticide application equipment is stored in the chemical storage area or in another designated storage area				
Gloves and eye protection are available for personnel to wear when handling pesticides				

Pesticides are stored in their original containers unless damaged; if original container is damaged, pesticides are stored in compatible containers with complete and accessible labels		
Pesticides are stored by hazard class (flammable, corrosive, toxicity/poison and reactive) and pesticidal function, with incompatible materials stored physically separated from one another (not alphabetically)		
Flammable liquids are stored appropriately. If there are more than 10 gallons stored in the greenhouse, the excess must be stored in a flammable cabinet		
Secondary containment is used for all hazardous liquids		
Easily removed shading formulations are always used; shading material is allowed to be removed by snowfall or on schedule with water and scrubbing; no chemical removal of shading compound		

Transgenic material

Criteria	Notes	Yes	No	Date Corrected
Users are aware of special procedures required for transgenic materials in plant growth facilities and do not enter such facilities without specific training				
Transgenic plant material is not removed from a greenhouse without greenhouse manager/supervisor approval				
Access to greenhouses containing transgenic materials is limited to approved greenhouse users				
Appropriate methods are used to render transgenic materials biologically inactive before disposal outside the greenhouse				

Hazardous Waste Accumulation and Disposal

Criteria	Notes	Yes	No	Date Corrected
Hazardous <u>waste</u> accumulation area is labeled with an orange SAA sign				
Waste containers are closed when waste is not actively being added				
Waste containers are labeled with an orange label. The label is completely filled out when waste accumulation begins.				
Full waste containers are <u>picked up by EH&S</u> at regular intervals or as-needed				
Sharps disposal containers are leak proof, puncture proof, and have a lid				