**Standard Operating Procedures for Transgenic Plants and/or Plant Hazards**

**Approval Holder Name:**  **A.H. #**

**Approval Holder Phone Number(s):**

**Approval Safety Coordinator Name and Phone Number:**

**(optional)**

**Location of field/facility including (address, GPS, acreage etc.)**

**List of Approved Rooms (including Building name)****for transgenic plants and/or plant pathogens**

**Transgenic Plants and/or Plant Pathogens**

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| --- | --- |
| **Name of transgenic plant or plant pathogen** | **Species of Host/Transgenic** |
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Physical Containment Standards:

*[Describe the field, include a schematic of field/facility, and any safeguards taken to contain plant pest i.e fence, buffer area, gates, locks, warning signs, etc.]*

**General Operational Standards**

Laboratory Procedures:

*[Include techniques and safety issues.]*

Biocontainment:

*[Include techniques and safety issues.]*

Transportation:

All transgenic plants must be transported with secondary containment (i.e. double bagged and in a leak proof container)

*[Include how any plant material is transported and describe if plants are seeding. Include any information on if and how you will ship with a commercial shipping company. Describe any foreign source materials and how you will handle safely; permits are required.]*

**Persistence in the Environment**

 *[Describe reproductive controls and separation distances that will be employed.]*

*[Describe any special circumstances that may increase the likelihood that regulated GMO or offspring could persist in the environment, including but not limited to proximity to sexually compatible wild or weedy relatives, whether the location is prone to flooding, high winds, animal incursion, or public access.]*

**Plant or Agent Devitalization**

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| **Type of Disinfectant** | **Concentration** | **Contact Time** |
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Autoclave:

*[If autoclave is used to deactivate: explain when it is used, what information is in the logbook, when each monthly biological indicator was performed , and where the autoclave is located.*

**Volunteer Plants**

*[Describe how volunteers will be managed to prevent persistence in subsequent seasons (e.g. frequency, timing, and areas of monitoring, methods of removal, other crops to be planted in the field in subsequent seasons that can be readily differentiated from the regulated material)]*

**Waste Disposal**

*[Explain the procedure for waste disposal. Include disposal methods for recombinant waste as solids, liquids, and sharps. Ensure explanation of how waste is transported from the lab to any waste disposal area. Record room number of your Risk Management collection site if applicable.]*

**Biosecurity**

The objective of biosecurity is to prevent loss, theft or misuse of microorganisms, biological materials, and research-related information. This is accomplished by limiting access to facilities, research materials and information. While the objectives are different, biosafety and biosecurity measures are usually complementary.

All recombinant, biohazardous, or high consequence materials must be secured at all times when the approval holder or designees are not present. These include restricted areas, escape-proof cages, growth chambers, cold storage equipment, and any other related areas where related organisms will be kept. Devices used to secure these organisms must include either a locking mechanisms utilizing a controlled key with documentation of those with access, a key card reader, or a coded lock.

**Visitor Information**

All visitors to this laboratory have read and understand what the agents are and what their route of exposure is.

**Emergency Phone Numbers**

Fire and Medical Emergencies…………………………………………………………..…..911

Police…………………………………………………………………………................…...911

Occupational Health…………………….…………………………………………......621-6490

Research Laboratory and Safety Services.……….....…………....................................626-6850

**Spill kit location:**

**First aid kit location:**

**Signature and Acknowledgement Page for [A.H’s] Lab Workers**

**Authorization**

 Anyone working under this approval who has signed the list below is permitted to enter authorized rooms under this approvalwhile work with recombinant plant material or plant-related organisms, transgenic whole plants, plant pathogens or any regulated plant material is in progress.However, only those persons who have attended the Research Laboratory and Safety Services’s (RLSS) Plant Hazard Protection Course may perform work with any of the above mentioned material.

# Disclaimer

 We, the undersigned, understand that the above mentioned agents may be hazardous to the environment. Further, we agree that we have received, read, understood and had an opportunity to ask questions about the UA Biosafety Manual and agree to attend required RLSS training prior to handling samples. Any additional questions should be directed to the Approval Holder or the RLSS. I hereby agree to inform the University of Arizona Research Laboratory and Safety Services (RLSS) of any possible occupational exposure or near miss while working under this Approval Holder.

Anyone who works under this approval must sign the disclaimer below.

| Name | Signature | Date | Agent Vaccination:Yes/Declined/N/A? |
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# Signature and Acknowledgement Page for Visitors to [A.H’s] Lab

# Visitors must read, fill out and sign the below table. A visitor is an individual that comes into the lab and does not directly work with the recombinant plant material or plant-related organisms, transgenic whole plants, plant pathogens or any regulated plant material, but may come in contact with contaminated objects.

# Disclaimer

 We, the undersigned, understand that the above mentioned agents may be hazardous to the environment. Further, we agree that we have received, read, understood and had an opportunity to ask questions about the appropriate parts of the Standard Operating Procedures. I hereby agree to inform the University of Arizona Research Laboratory and Safety Services (RLSS) of any possible occupational exposure or near miss while working at the University of Arizona.

| Name/Company or Department | Signature | Date | Project Performed |
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**VALIDATION FOR SOP**

**Approval Holder’s Certification**

I hereby certify that I have reviewed the contents of these Standard Operating Procedures and it reflects my current operating policy for work with recombinant plant material or plant-related organisms, transgenic whole plants, plant pathogens or any regulated plant material.

[Approval Holders*’s Name*]

[Approval Holder*’s Title*]

Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Annual Review Date \_\_\_\_\_\_\_\_\_\_\_