# Air Sample Collection Guide

Accurate, repeated testing and removal of infected plants is critical for maintaining consistent yields. This document details the steps to collect air samples for testing at TUMI Genomics Laboratories. These instructions are specific to the Air Test.

## 1 Prepare Materials

### Provided Materials

1 petri dish for each sample

There are 2 dishes labeled 'Control' DO NOT OPEN

Parafilm strips

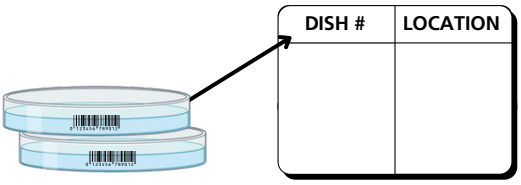
### User Supplied Materials

Disposable gloves

70% Ethanol

## 2 Identify Testing Locations

Select the locations within the facility to gather air samples. Ideal locations include near air ducts, near entry/exit points, in flower drying areas, and in areas that have held plants infected with fungal pathogens. Before collecting samples, document which dish number corresponds to which location.




Among your chosen locations, select two where you will also place a Control dish. The Control dish should remain closed.

## 3 Upon Arrival

Remove zip lock bags from the shipping box and make sure plates are not broken. **DO NOT OPEN** the zip lock bag until ready to use.

Store plates in ziploc bags, as they were shipped, in the fridge upside down (lids on the bottom).

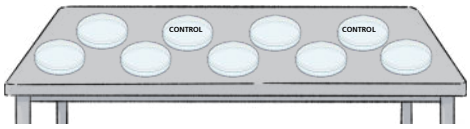
## 4 Day 1 - Acclimation

Wipe your working surface with 70% ethanol.

Wearing clean gloves, remove plates from the ziploc bag. **WITHOUT OPENING the dish**, pinch the plate between your fingers and thumb, and use your other hand to carefully remove the wrap.

Set each plate on the table with the lid **closed**. The closed dish should be facing up, the agar gel will be on bottom. Leave dishes for at least 24 hrs.

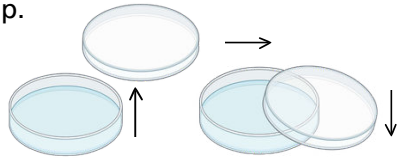
**Do not stack plates on top of each other.**




## 5 Day 2 - Sample Collection

**Reminder: DO NOT OPEN the Control dishes**

Place plates in selected areas. Remove lid, and rest upon the edge of the bottom dish - lid should be right-side up.



Leave the open dishes for 60 minutes and then replace and seal the lids.

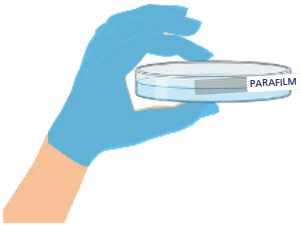
### Sealing Petri Dishes

Need help with this step?
Watch this video

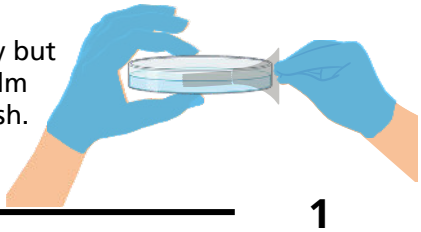
After 60 minutes, place the lid on the dish and seal using the parafilm tape.

Similar to a bandaid, each tape strip has two removable segments.

Remove the first segment and stick the strip to the closed dish.




Remove the second segment and gently but firmly stretch the film around the petri dish.





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## 6 Returning Samples

**Petri dishes should be shipped the same day they are used to collect samples.**

Place all the samples and the Control dishes in a sealed, ziplock bag.
Samples do not need to be shipped on ice.

If possible, ship the dishes in a cardboard box versus an envelope to avoid breakage during shipping. Ship samples to:

**TUMI Genomics**
**320 East Vine Drive Suite 129**
**Fort Collins, CO 80524**

**Turnaround time is 10 business days**

## Have more questions?

See the FAQ section of our website or contact us at (720) 807-8864 or sales@tumigenomics.com

## International Clients

### USDA Permit Packet

This packet must be printed and packed into your return shipment to the TUMI Genomics lab.