

# Standard Operating Procedure: Wheat Germ Insect Artificial Diet Preparation

**NOTE:** This procedure has been reviewed and accepted and signature sheet is not included.

Diet preparation takes place in lab 436. This procedure can be done by one person.

### SUPPLIES NEEDED:

- $\geq 3,500$  mL of distilled water.
- Hot plate to boil water in a pot that can hold  $\geq 4,000$  mL.
- Bags of pre-measured diet (labeled as full agar) are located in freezer #4 in laboratory 436.
- Heavy-duty mixer
- 10 mL of acid mix (amber bottle in counter, or refer to "acid mix preparation SOP" to produce more of the mix).
- One or two ketchup bottles or pipette for dispensing diet.
- Spatula.

**NOTE:** Amount of prepared diet approximates 3,685 mL.

### PROTECTIVE EQUIPMENT:

- Latex gloves
- High temperature glove(s)
- Safety glasses
- Apron (optional)

Basic  
equipment



## PROCESS:

1. Put latex gloves on.
2. Measure 4,000 mL of distilled water and pour into pot on top of hot plate. Turn hot plate to 'Hi'. Bring distilled water to hard boil (approx. 20-30 minutes). You can place a thermometer probe in the water to alert you when water is boiling.



3. Put safety glasses / goggles on. Pre-measure 10 mL of acid mix located in chemical cabinet in lab 436.



Acid mix bottle

4. Once distilled water comes into a boil, put high-temperature glove(s) on.
- Pour 3,500 of hot water into mixer bowl.
  - Turn blender to the minimum speed
  - Add the ingredients of diet bag.
  - Stir diet for a minute, stop blender, scrap bowl sides with spatula and turn blander back to speed 3 for 2 minutes.
  - Add the 10 mL of acid mix and blend for another 2 minutes.



5. Pour prepared diet into pipette or dispenser bottle and pour diet into bioassay trays or cups.

**NOTE:** Do not dispose unused diet into the drain. Let the diet solidify in containers then place it in garbage can.



Diet in pipette being dispensed in bioassay trays



Diet in dispensing bottle being pour into cups

- When done with this procedure, rinse all utensils and containers and place them in the deep sink to soak for  $\geq 20$  minutes in a hot water solution containing mL of clorox for every 50 liters of water (The sink volume is marked).