

Artemia (brine shrimp) Culture and Harvest

Culture:

- 1) Grab a weigh boat near the hatchery cone in BRF 221.
- 2) Go into BRF 218 to obtain brine shrimp eggs.
 - a) The labeled bottle is kept in the refrigerator below the sink.
 - b) Use the white scoop (attached to the bottle) and the weigh boat to obtain the correct number of scoops of egg case free brine shrimp eggs depending on whether you are preparing a single batch (1 scoop) or a double batch (2 scoops).
 - i) See the supplemental information provided in the “Latest *Artemia* (brine shrimp) Culture and Feeding Schedule” document.
 - ii) Scoop only the thick brown sludge below the watery top layer.
 - iii) Rinse the measuring scoop with tap water and clean up any mess that may have occurred during the process to keep BRF 218 clean. The sink in BRF 218 does not work so use the sink in either BRF 221 or 223.
- 3) Fill two or three plastic Liter beakers with water from the Aquatic Eco-Systems rack in BRF 223 using the clear tube coiled up at the upper right of the rack as you walk in the door.
- 4) Go back to BRF 221 and gather the parts needed for the hatchery system.
 - a) Hatchery cone.
 - b) 4-legged stand.
 - c) Air pump, hose with attached plastic straw, and the hatchery cone top.
 - d) Light source.
- 5) Place the hatchery cone on the 4-legged stand.
 - a) Make sure the valve at the bottom of the cone is set to off by turning the valve handle to a perpendicular position relative to the black outflow fitting.
- 6) Using the water you obtained in step 3, measure out the proper volume to be used for brine shrimp culture depending on whether you are preparing a single batch (1L) or a double batch (1.55L).
 - a) See the supplemental information provided in the “Latest *Artemia* (brine shrimp) Culture and Feeding Schedule” document.
- 7) Place the proper number of leveled tablespoons (blue scoop) of Marine Mix/Instant Ocean (salt) into the water you measured out in step 6
 - a) The proper number of tablespoons depends on whether you are preparing a single batch (2 Tbsp) or a double batch (3 Tbsp).
 - b) See the supplemental information provided in the “Latest *Artemia* (brine shrimp) Culture and Feeding Schedule” document.
- 8) Agitate the water/salt solution until all of the salt has dissolved by pouring the solution from one Liter beaker into another several times (≥ 15) or by other effective means.
 - a) A small amount of white granules will not dissolve.
- 9) Combine the contents of both beakers into one and let stand for ~30 seconds.
 - a) This will allow the undissolved particles to settle to the bottom of the filled beaker.
 - b) You can use this time to rinse/clean any beakers or tools you have used with tap water.
- 10) Pour the water/salt solution into the hatchery cone making sure the undissolved particles that have settled to the bottom stay in the beaker. Rinse the empty beaker with tap water.
- 11) Place the hatchery cone top (with attached air hose and plastic straw) onto the top of the hatchery cone at an angle and turn on the air pump (to get circulation started) and light using the power strip switch.
 - a) Make sure the hatchery cone top and the attached plastic straw has been scrubbed with the cleaning brushes and cleaned before placing it on top.

Culture continued:

- 12) Place the brine shrimp eggs you obtained in step 2 into the solution in the hatchery cone.
- 13) Place the hatchery cone top straight onto the top of the hatchery cone and insert the end of the plastic straw securely into the outflow hole at the bottom of the cone.
- 14) Make sure the light source is ~8" from the hatchery cone.
 - a) This provides light and heat for optimal hatching conditions.
 - b) Recommended water temp is 80°F/26.7°C.
- 15) Place the cover (Rubbermaid bin) over the hatchery cone and light such that the bin is not resting on the hatchery cone or air hose.
 - a) You can lean one side of the bin on a chair back to prevent it from resting on the hatchery cone or air hose.
- 16) Wait 18-24 hours to harvest.

Harvest:

- 1) Prepare the proper volume of water needed for the brine shrimp feeding solution depending on whether a single batch or a double batch has been cultured.
 - a. Use water from the Aquatic Eco-Systems rack in BRF 223 via the clear tube coiled up at the upper right of the rack as you walk in the door.
 - b. See the supplemental information provided in the "Latest *Artemia* (brine shrimp) Culture and Feeding Schedule" document.
 - i. Single batches require 0.45L; double batches require 0.8L.
- 2) Fill another Liter beaker for rinsing use.
 - a. Use water from the Aquatic Eco-Systems rack in BRF 223 via the clear tube coiled up at the upper right of the rack as you walk in the door.
- 3) Turn off the air pump and light using the power strip switch.
- 4) Take the top off of the hatchery cone and set aside.
- 5) Suspend the square black sieve using one of the clear plastic hatchery boxes on the sink shelf.
- 6) Strain the *Artemia* out of the water in the hatchery cone by pointing the outflow hole toward the sieve mesh (holding the cone at an angle), opening the valve, and letting the solution drain through the sieve.
- 7) Rinse the *Artemia* in the sieve with some of the rinse water you prepared in step 2 to remove any remaining salt water off of the strained *Artemia*.
- 8) Using the water you prepared in step 1, pour it through the bottom of the sieve into an empty beaker.
 - a. At first, pour just enough water through the bottom of the sieve to rinse most of the *Artemia* into the empty beaker.
 - b. Rotate the sieve right side up and use some of the water to rinse *Artemia* off of the sides of the sieve onto the mesh keeping the sieve above the target beaker.
 - c. Again, keeping the sieve above the target beaker, turn it over and use the remaining water to rinse the remaining *Artemia* into the beaker.
- 9) Scrub and rinse the hatchery cone (and components), rinse the sieve, and rinse any other tools used with tap water and the cleaning brushes.
- 10) Start *Artemia* culture for tomorrow if necessary.
 - a. See the supplemental information provided in the "Latest *Artemia* (brine shrimp) Culture and Feeding Schedule" document.