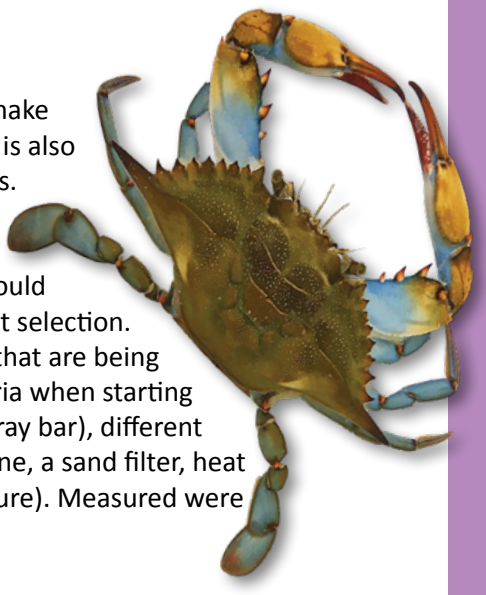
Start-Up Tips



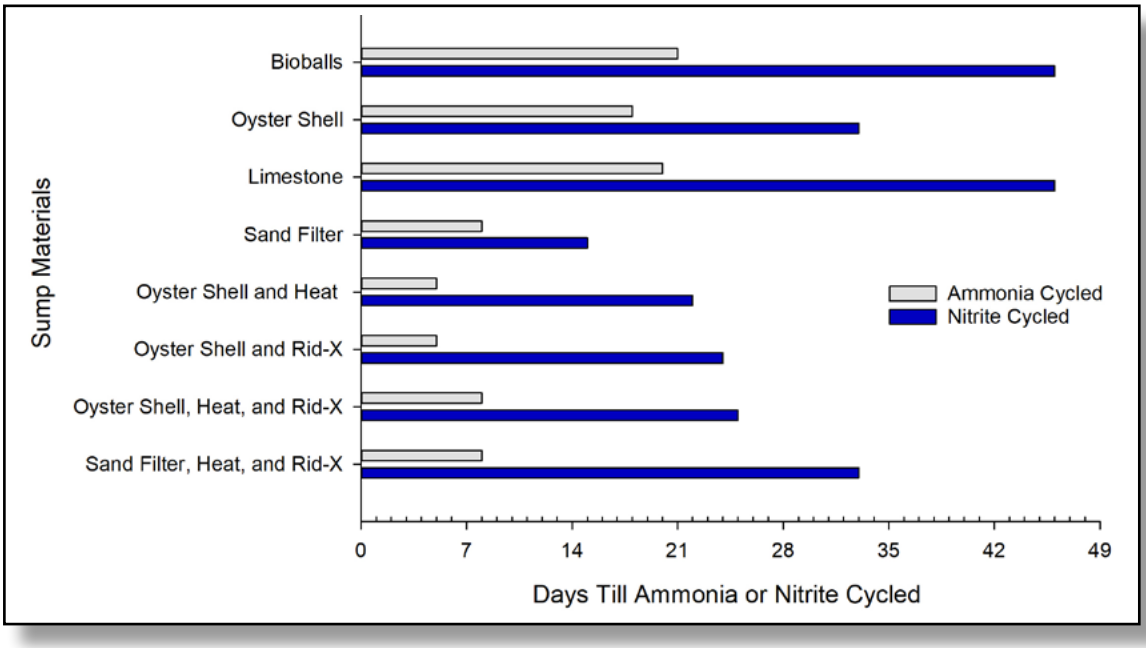
Before starting up a new shedding system, shedders should make sure there is enough aeration in the shedding trays and sumps. It is also recommended that pH and salinity be tested prior to adding crabs.

Commercial salt products not marketed for the creation of artificial sea water may impact the pH of the water. For example, shrimpers salt can cause water pH to rise above 8.0. Shedders should test water pH before adding crabs and care should be taken in salt selection.

Louisiana Sea Grant recently examined shedding techniques that are being used in industry to speed up the development of nitrifying bacteria when starting a new system. Using a recirculating system (tray, sump, pump, spray bar), different biofilter media were tested - plastic bioballs, oyster shell, limestone, a sand filter, heat and Rid-X - individually and in combination (see treatments in figure). Measured were the number of days it took for bacteria to cycle (or remove) ammonia or nitrite from the system.

Results:

- Ammonia cycled in three weeks in sumps with bioball, oyster shell and limestone biofilter media. The oyster shell was faster in cycling nitrite.
- Ammonia cycled in approximately one week with the sand filter. The sand filter was the best at cycling nitrite in two weeks.
- The use of heat or Rid-X© (in addition to the biofilter media) can be used to speed up bacteria growth. Ammonia was removed from the system in less than 10 days. Nitrite was reduced in two to five weeks.
- Using heat, Rid-X and sand pumps in combination do not cycle ammonia or nitrite any faster.



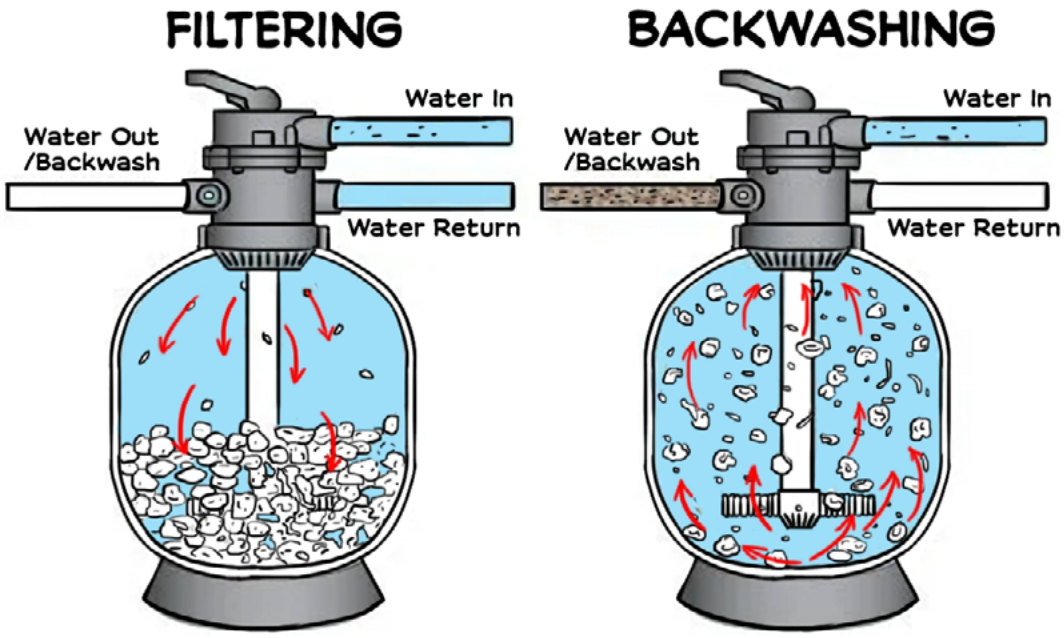
Number of days it takes for ammonia and nitrite to cycle out of a recirculating system (49 gallons of water and six crabs) using different sump materials.

A heater can be added to the sump to heat up water to 90° F for 24 hours. Allow water to cool before adding crabs to trays. The high temperature can stress out and kill the crabs.

The sand filter will warm the water in your system a few degrees. This will speed up bacteria growth. But monitor the water temperature in your system to ensure water temperature stays between 75° F to 80° F.

Although data is not available, commercial bacteria will speed up the development of nitrifying bacteria. It may take up to two weeks for bacteria to cycle ammonia and nitrite.

If you use a sand filter, they require more maintenance than simple sumps. Be sure to backflush your sand filter per manual guidelines. You may find that you have to backwash your filter every 1 to 2 weeks. You do not want to remove more than 25 percent of your system's water during a backwash to prevent bacteria from crashing.



Sea Grant Louisiana

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laseagrant.org/outreach/projects/soft-shell-crab/

Authors: Elizabeth Robinson and Julie Lively

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