

YOUR FREE READER'S COMPANION

The Shrimp Keeper's Water Pack

A companion to The Freshwater Shrimp Keeper's Bible · by Mara Quinn

Thanks for picking up the book. This is the companion you tape to the wall beside the tank and the one you carry to the shop before you bring a single shrimp home: the water-parameter cheat sheet so you build the right water for the right shrimp, the fishless-cycle quick reference that keeps your colony out of invisible poison, the slow drip-acclimation method that gets new shrimp across the gap alive, a feeding and molting guide that keeps them fat and shelling clean, and a pest first-response chart for when something wiggly shows up on the glass. Print it, tape it up, keep it where you'll see it.

Shrimp colonies that collapse almost never die of a disease anyone can name. They died of water I couldn't see - a TDS that crept up over a hot week, a water change made too fast, a fresh tank rushed before it was ready. Shrimp don't die of old age in a new tank; they die of change. Get the water stable and cycle it fully before a single shrimp goes in, and almost everything else takes care of itself. Stable water beats perfect water, every single time. — Mara

1. The Water-Parameter Cheat Sheet

Before a single shrimp comes home, you make one decision that shapes everything after: which shrimp you're keeping, because the two main groups want nearly opposite water. Neocaridina (cherry shrimp, blue dream, yellow) want harder, neutral-to-alkaline water - and in much of the US, plain dechlorinated tap already lands there, which is why they're the beginner's shrimp. Caridina (crystal red/black, Taiwan bee) want soft, acidic water you build by hand from RO. You cannot keep both in the same water. Pick one and build for it.

The numbers by species

Parameter	Neocaridina (cherry, blue, yellow)	Caridina (crystal, Taiwan bee)	What the number does
GH (general hardness)	6-8 dGH	4-6 dGH	Calcium + magnesium the shrimp builds its shell from. Too low and molts fail. The single most important number.
KH (carbonate hardness)	2-6 dKH	0-1 dKH (near zero)	The pH shock absorber. Some KH holds pH steady; caridina want almost none so their soil can hold pH low.
TDS (total dissolved solids)	150-250 ppm	100-180 ppm	The sum of everything dissolved, read by a \$15 pen. Your daily early-warning gauge - watch it hold steady.
pH	7.0-7.8	5.5-6.5	Mostly a consequence of KH and substrate, not something you set. Never chase it with chemicals.
Temperature	68-76 F (20-24.5 C), steady	68-74 F (20-23.5 C), steady	Warmer = faster molts and higher mineral demand. Steady matters more than the exact number.
Typical water source	Hard tap, or RO + a GH/KH mix	RO + a GH-only mix, on buffering soil	Match the remineralizer to the shrimp - a GH+KH mix ruins a caridina tank.

Three honest rules

- Treat every band as a zone to sit stably inside, not a bullseye to chase. A shrimp lives a long breeding life anywhere in its band. What kills it is moving fast from one spot in the band to another.
- Get a TDS pen. It's ten or fifteen dollars and it's the instrument that catches trouble - a creeping or jumping TDS - before it kills. Non-negotiable.
- Match the substrate to the shrimp. Inert gravel/sand for neocaridina (it does nothing to your water). Active buffering aquasoil for caridina (it pulls KH and pH down and holds them there for 12-24 months, then wears out and needs replacing).

2. The Fishless Cycle - Quick Reference

This is the step beginners skip and the colony pays for. A brand-new tank has no system to handle waste, so ammonia climbs until it harms the shrimp - and shrimp are far more sensitive to ammonia than fish, hurt by levels a test kit barely registers. Cycling means growing colonies of beneficial bacteria that turn that poison into something harmless, before your shrimp depend on them. Plan on four to six weeks. There is no bottle that does it in a day.

The chain you're growing

Ammonia (from waste, uneaten food, and fresh aquasoil that leaches it) is toxic - target zero. Bacteria turn it into nitrite, which is also toxic - target zero. A second bacteria turns nitrite into nitrate, the mild end-product you keep low with water changes. The chain runs: ammonia to nitrite to nitrate. Toxic, toxic, then mostly harmless.

Fishless cycling, step by step

1. Set the whole tank up. Substrate down, hardscape and plants in, filter running (a sponge filter is the shrimp-safe choice - it can't suck in a baby), heater holding your target temp. Just no shrimp.
2. Add an ammonia source. Dose bottled pure ammonia (no additives) to about 2-4 ppm, or let a fresh active-soil tank leach its own - that early ammonia is the fuel that grows your bacteria.
3. Test and wait. After one to two weeks, ammonia starts to fall and nitrite appears and climbs. That's progress.
4. Wait for the second colony. After another week or two, nitrite drops and nitrate appears. Keep a little ammonia going so the bacteria don't starve.
5. The finish line - and then keep waiting. The tank is cycled when a dose of ammonia reads 0 ammonia and 0 nitrite 24 hours later, with some nitrate present. But cycled isn't the same as mature.

Cycled vs. mature - the difference that saves colonies

A sparkling-clean, two-week-old "cycled" tank is a starvation desert for shrimp. Mature means the tank has run long enough - I like 6 to 8 weeks, longer if you can - to grow a film of biofilm and microfauna over every surface. That slightly grungy brown-green slick is the actual food a new colony grazes while it settles in. So the order is always: set up to cycle fully to then wait and let it age to confirm parameters are stable to then add shrimp. Shrimp go in last, always.

3. The Drip-Acclimation Method

Adding shrimp is the single most dangerous day in their lives after molting, and the danger is the same one: a sudden swing. The bag your shrimp arrive in is almost never the same water as your tank - a shop might run TDS 300 while your tank runs 180 - and closing that gap slowly is the whole job. The classic "float the bag fifteen minutes" trick only matches temperature; it does nothing about TDS, GH, or pH, which are the things that actually kill shrimp. So we drip. Every time. Even the hardy cherries.

What you'll need

- A clean cup or jar - never metal (copper/zinc traces kill shrimp).
- A couple of feet of airline tubing.
- A way to throttle the flow: a \$2 airline control valve, or a loose overhand knot in the tubing you cinch to slow the drip.
- A clip or suction cup to hold the tubing.
- A TDS pen, and ideally a thermometer.

The steps

1. Float the bag 15-20 minutes, lights off over the tank. This matches temperature only - the easy part.
2. Pour the shrimp and their shipping water into the cup. Set the cup below the tank's water line - on the floor or a stool - so a siphon can run downhill into it.
3. Start a slow siphon from the tank into the cup with the airline tubing.
4. Throttle it to 2-4 drops per second. Tighten the valve or knot until you're watching individual drops, not a stream. This is the whole secret. Slow.
5. Let it run 45-90 minutes. When the cup's volume doubles, gently pour out half (keep the shrimp in!) and let it keep dripping until it doubles again.
6. Check the TDS. When the cup reads within about 10-20 of your tank, you're there. The bigger the starting gap, the slower and longer you drip - a 50-point gap is an easy 45 minutes; a 150-point gap deserves a full two hours and a couple of cup dumps.
7. Net the shrimp in - net, never pour. Lift each shrimp out with a fine soft net. The cup water, with all its shipping residue, goes down the drain. Never dump bag water in your tank - it carries copper traces, meds, ammonia, and possibly pests.

The quarantine note

Most hobbyists keep one tank and no spare, and the drip method already keeps shop water out, which removes a lot of the risk. At minimum, inspect each shrimp during acclimation - look at the head and rostrum under a light for tiny white threads (scutariella). Save true quarantine (2-4 weeks in a small separate tank) for expensive breeder-line shrimp or an unknown source. Match the caution to the risk: a \$3 cherry from a keeper you trust gets dripped and added; a \$40 caridina pair from a stranger online gets four weeks in a box first.

4. Feeding & Molting

The most counterintuitive rule in shrimp keeping: the danger isn't underfeeding, it's overfeeding. Almost nobody starves a colony. Plenty of people kill one with kindness. An aged, planted, mossy tank is already feeding your shrimp around the clock on biofilm and decaying leaves - your added food is just a supplement. Overfeed and the leftovers rot into ammonia and bloom into pests. When in doubt, feed less.

The feeding plan

Feed a mature colony a small amount every other day, or even every two to three days - the tank carries them in between. How much? Tiny: for a 10-gallon colony, one small shrimp pellet or a pinch the size of a couple grains of rice. Then the discipline that keeps the colony alive: whatever they don't finish in 2-3 hours, take it out. Leftover food is your feedback loop - if it's always still there at the 3-hour mark, you're feeding too much.

Day	Feed
Monday	Small shrimp pellet
Tuesday	Nothing (biofilm)
Wednesday	Thin slice blanched zucchini
Thursday	Nothing
Friday	Small shrimp pellet
Saturday	Nothing
Sunday	Fast day - nothing

Safe foods: blanched veg (zucchini, spinach, kale, cucumber - easy to see and easy to pluck out), a quality shrimp-specific food (look for one with added minerals for molting), and biofilm itself (leaf litter, cholla wood, a mineral block). Go easy on protein - too much is the fastest road to ammonia and pests. Watch for copper in any food or additive; copper is lethal to shrimp.

The molt cycle

Shrimp wear their skeleton on the outside, so to grow they climb out of the old shell and grow a bigger one. That translucent, hollow shell you'll find on the substrate is not a dead shrimp - it's a molt (the exuvia), and it's the best news in shrimp keeping. Hold a flashlight behind it: clear and empty means a molt; solid pink-orange means a death. Leave the shell in the tank - the shrimp reclaims its calcium from it over a day or two. Adults molt roughly every 3-4 weeks; shrimplets far more often.

The white ring of death

When a molt goes wrong, the shrimp can't separate the old shell from the new and dies stuck partway inside it - you'll see a distinct white gap at the neck seam, like a belt cinched too tight. Once you see it, that

shrimp can't be saved. It's not a disease and it's not contagious. It's a botched molt, and the overwhelming cause is a sudden swing in GH or TDS, almost always around a water change or a hot-week top-off. Prevent it by:

- Adequate GH so there's calcium to build the new shell (neocaridina 6-8, caridina 4-6). Repeated bad molts in stable water usually mean low GH.
- Small, frequent water changes - 10% twice a week beats 30% once. Small changes barely move the TDS.
- Match new water to the tank on temperature and TDS, mixed in a bucket first - never dump remineralizer straight into the tank.
- Top off evaporation with plain RO/distilled, not tap - when water evaporates the minerals stay behind, so replacing it with more minerals spikes the TDS.

5. Pest & Trouble First-Response

New keepers panic at the first wiggly thing on the glass, and most of it is harmless - a sign of a healthy, living tank. Detritus worms (thin, round, same at both ends, wriggling in the substrate), copepods and seed shrimp (tiny specks darting on the glass), and hitchhiking limpets are all fine and often free shrimp food. Leave them alone. Here's the short list of what's actually worth acting on.

Pest	How to ID it	What it does	First response
Planaria	Flatworm that glides smoothly, distinct triangular arrow-shaped head, white/tan	Attacks weak or molting shrimp and shrimplets; a bloom means overfeeding	Cut feeding to starve the bloom. For active cases, a fenbendazole dewormer clears them - remove snails first (it kills them), water change after.
Hydra	Tiny stalked blob anchored to glass/plants, waving thread-like tentacles; doesn't move around	Stings and eats newborn shrimplets, quietly tanking your breeding	Cut feeding. Fenbendazole wipes them out (same one-two as planaria). Snail-safe it first, water change after.
Scutariella	Tiny white threads (1-2 mm) on the shrimp's rostrum/nose; looks like fungus	A small parasite on the shrimp itself; heavy cases stress it and its eggs	Aquarium salt dip or low salt in quarantine; API General Cure also works. Keep water pristine.
Snails (nerite, ramshorn, MTS)	Not a pest at all	Shrimp-safe cleanup crew (ramshorns multiply)	Nothing needed - only manage numbers if ramshorns overrun.

The copper trap - read this twice

Shrimp are invertebrates, and invertebrates are exquisitely sensitive to copper. A level a fish wouldn't notice can wipe a colony to the last animal - and copper hides in fish medications (especially ich/parasite/fungus meds), snail killers, algacides, plant dips, and even old copper plumbing. It can ride into your tank on a wet net used in another tank. Keep separate equipment - net, vac, bucket - for your shrimp tanks, and if you're not certain something is shrimp-safe, it doesn't go near the tank. When one shrimp in a community tank gets sick, take that shrimp out to a hospital tank; never dose the whole shrimp tank with a copper med.

The "something's wrong" checklist

When a colony starts dying or stops breeding, don't reach for a bottle - reach for the test kit and your notebook, in this order:

1. Did you treat anything, anywhere, with anything? Any chance of copper cross-contamination? This crashes colonies fastest of all.
2. Test the water. Ammonia and nitrite must read 0; if either is up, do an extra matched water change and

cut feeding.

3. Check the TDS against last week. A jump - from a hot-week top-off or a fast water change - is your white-ring warning. Bring it back slowly, not in one move.
 4. Stop feeding. A struggling tank almost never needs more food; it needs less food and cleaner water. Fast it a few days.
 5. Look before you medicate. Most trouble is water, not disease. Fix the water first, and the great majority of it clears up on its own.
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That's the pack. Your first job, before any shrimp: decide neocaridina or caridina, build the matching water and substrate, then cycle and age the tank for those few weeks until ammonia and nitrite hold at zero and the surfaces go a little grungy with biofilm. Do that and you've done the hardest part of shrimp keeping before the shrimp ever arrive. When you've got a moss full of tiny shrimplets you didn't have to do anything to make, glowing like little jewels, I'd love to hear about it - and in a couple of emails I'll tell you how a quick word from you helps this book reach the next nervous beginner standing at the store with a cup of cherries.

Stable water makes a thriving colony,

Mara Quinn