

Aquaponics



Gardening with fish

What is aquaponics?

Aquaponics is a combination of aquaculture (growing fish) and hydroponics (growing vegetables in water and nutrients).

It works like this:

- Fish live in a tank, where they produce waste rich in ammonia.
- The waste water is pumped into another tank filled with items like scoria, clay pellets or small rocks.
- Bacteria living on these items media convert the ammonia and fish waste to nitrogen.
- Plants use the nitrogen and filter the water
- The clean water goes back to the fish.

What is good about aquaponics?

- It uses far less water than growing vegetables in the ground. Some sources say up to 90% less.
- It is productive, allowing you to grow a lot of food in a small area.
- The beds are raised – easy on your back
- They don't need weeding or fertilising.
- It's organic – fish and bacteria would be impacted by sprays.
- It's efficient. You can run a system on solar energy and grow worms using vegetable scraps from the beds, which are then fed to the fish.

How do I build a system?

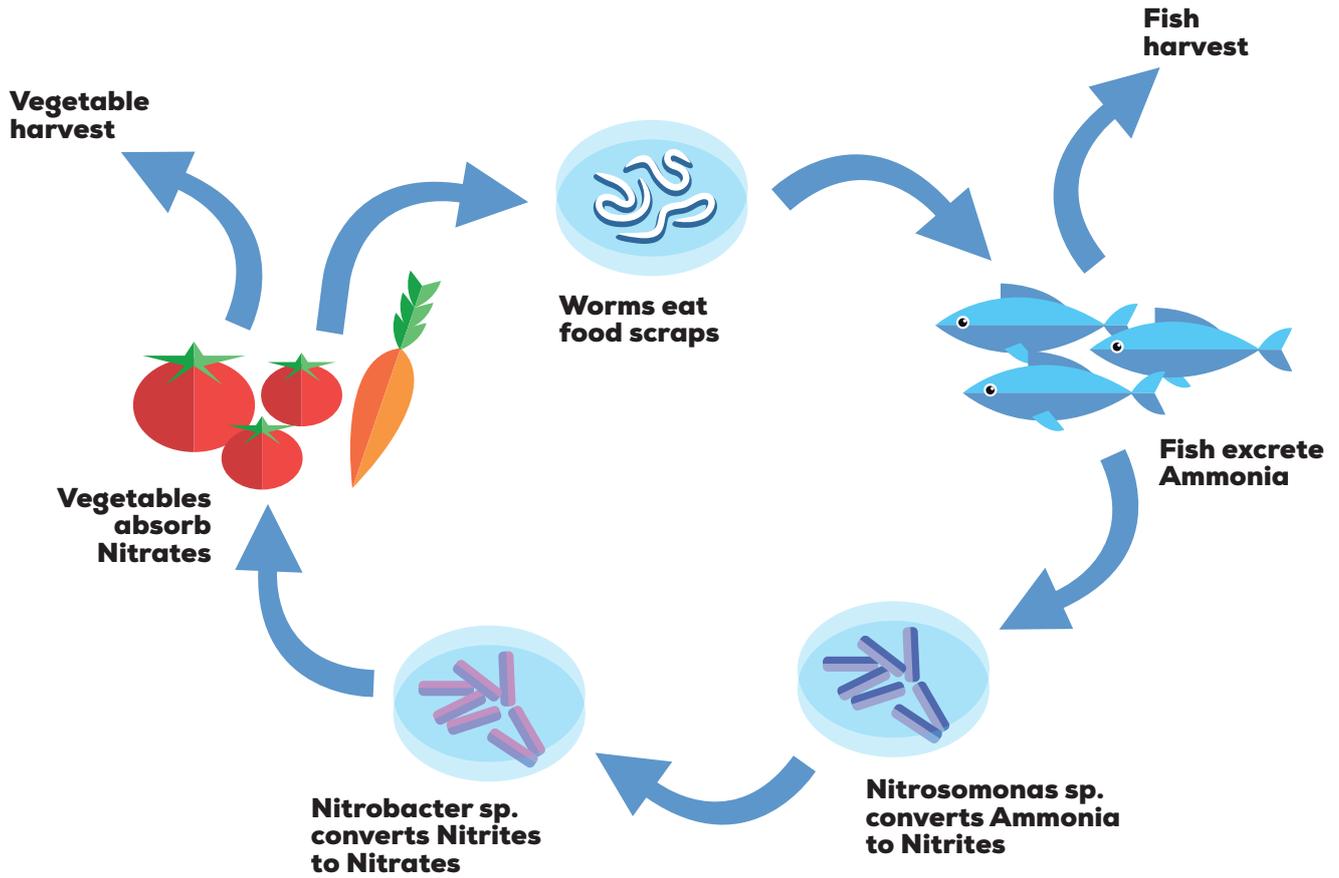
Backyard Aquaponics is Australia's largest website and is a good place to research options. Their guide takes you through the whole process with diagrams and videos.

<http://www.backyardaquaponics.com/guide-to-aquaponics/what-is-aquaponics/>

Backyard Aquaponics also has an active forum. With Townsville located in the dry tropics, we have different conditions compared to much of Australia. You can find advice and ask questions in the forum – add 'Townsville' to the search bar in the forum to start off.

<http://www.backyardaquaponics.com/forum/>

Aquaponics Cycle



The Small System

