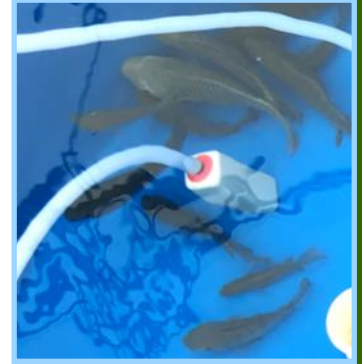




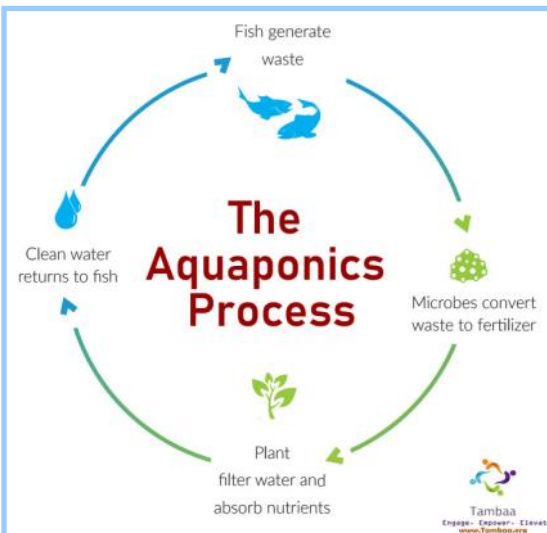
Fish Growing Plants — Plants Growing Fish

If you've ever taken a tour of Seton Harvest or have been following us over the last four years, you know about the hydroponic systems we installed in 2018 ([see March 2021 news](#)). Well, now you can see another alternative growing method at the farm...AQUAPONICS! Much like hydroponics, aquaponics is a closed-loop, soilless method of growing plants in nutrient-dense water. The difference between hydroponics and aquaponics, however, is that instead of a farmer adding artificial fertilizers and nutrients into the water, it's done by FISH!!



Aquaponics defined, combines hydroponics (growing plants in water) with aquaculture (raising fish for food). Fish are kept in tanks of water where they are fed and deposit their waste products. The wastewater is pumped through a filtration system where the solids are removed and beneficial bacteria convert ammonia into nitrites and then into nitrates. Nitrates are the main source of nitrogen which plants depend on for food. The plants absorb the nitrogen from the water, preparing it to be delivered

back into the fish tank fresh and clean. This symbiotic relationship between the fish and plants is a wonderful example of the reciprocal, cooperative efforts often found in natural processes.



Assistant Farm Manager, Daniel Rodenberg, has been tending our hydroponic systems over the last four years and is now learning about aquaponics. He began setting up our new system in January. "Taking care of fish like this is a new experience," he says. "I'm still getting used to the daily feeding, cleaning routines, and water quality testing." Daniel has also been experimenting with different types of growing mediums, stating, "I've had good germination using only clay pebbles, but the rockwool cubes (like those used in our hydroponic system) help reduce the number of seeds needed to get a good plant by providing a more stable surface."

Fish suitable for aquaponic systems include warmwater fish such as tilapia, catfish, bream, and hybrid striped bass. We are currently producing tilapia. With the help of the fish, we are growing kale, lettuce, Swiss chard, basil, parsley, cilantro, bok choy, cutting celery, and arugula. The produce from our new aquaponic system will be donated, along with the vegetables we will continue growing hydroponically, to local shelters, food banks and pantries in the Evansville area.



Providing education about sustainable food production and how we can all be more informed consumers is part of the Seton Harvest mission. We're looking forward to sharing our exciting new aquaponics system as part of our farm tours. Do you know a school or work group interested in visiting the farm? Contact Julie.Dietz@doc.org.

The first law of ecology is that everything is related to everything else. Barry Commoner



May 1st — Final 2022 Share Payments Due!!
May 21st & 24th — First Pickup Days (Subject to Change)