The Aquaponic Life

Trimble, Sarah (School: Kossuth High School)

What is aquaponics? This is a question that not enough people know the answer to. The word aquaponics was created by combining the words "aquaculture" and "hydroponics". It's not only the combination of the words, but also the methods. The process of raising fish while growing plants in a soilless system solves many problems dealing with both aquaculture and hydroponics. with aquaculture, you face the problem of fish leaving waste behind and eventually leading to high level of ammonia. If theses toxic levels are not maintained properly, then the fish are at risk for sickness or even death. The purpose of aquaponics is to be able to grow fish without the levels of ammonia building up by using plants as a bio filter. The whole idea of aquaponics is that the waste from one biological system (fish) will serve as a natural fertilizer for the second biological system (plants). The roots of the plants act as a filter and uses the fish waste or ammonia as fertilizer, while also removing other toxic components from the water. Then the newly cleaned water is returned to the fish and this is repeated every day.

Awards Won: