

NATURALLY GROWN TILAPIA FISH AND CERTIFIED ORGANICALLY GROWN HERBS AND VEGETABLES USING AQUAPONICS

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There are several problems that accompany current procedures for supplying food to the marketplace:

First are the nagging concerns surrounding the use of genetic modification, hormonal manipulation and the use of antibiotics in the animals' food supply.

Second is the concern of pollution. Both wild caught and farm raised are affected. There are widely publicized concerns with the farm-raised fish that are raised extreme polluted conditions. Some of the sources of the pollutants are the fishes' own excrement, farm chemical runoff, manufacturing waste and heavy metals that affect outdoor aquaculture and fish caught in the natural water including the ocean. Many traditional aquaculture facilities discharge huge amounts of excrement in their wastewater that is very high in nitrogen, which ends up in our natural waterways. These pollutants, added to the excess nitrogen from farmer's petroleum based nitrogen fertilizers, pesticides and herbicides, empty into the waterways and aquifers in North America and contribute to the Dead Zone in the Gulf of Mexico, which now measures, alarmingly, over 10,000 square miles. There are 200+ dead zones worldwide, which contribute to the up-take of contaminants that are taken up by the wild caught fish. Heavy metals such as mercury continue to build up in carnivorous fish such as tuna, salmon and cod.

http://www.nytimes.com/2008/01/23/dining/23sushi.html?_r=1&ref=health&pagewanted=print&oref=slogin; <http://www.foxnews.com/story/0,2933,328850,00.html>;
<http://www.nytimes.com/2007/12/15/world/asia/15fish.html?ex=1198386000&en=4aeb3394bbf6b59f&ei=5070&emc=eta1>

Third is the problem that fresh produce has very long distances and extended amounts of time taken to deliver the food of products to the market place. The supply trucks contribute to air pollution as they travel great distance to deliver their products. Western Illinois University states that the average distance food travels before it reaches stores in Illinois and before the consumer buys it is 1,500 miles. The extra time and distance contribute to lower quality product. Because time and distance affect these products, the use of modified atmosphere procedures to store the foods such as formaldehyde, Nitrogen gas and Carbon Monoxide gas has become the norm.

Fourth, most vegetable farming operations presently use large amounts of water and chemicals for the growth of their products. These operations can significantly diminish water supplies, and also contaminate the water supply with chemicals that also compromise the foods we eat.

Aquaponics is one of the most viable solutions to all of these problems.

Aquaponics is the combination of growing fish (aquaculture) and herbs and vegetables in water (hydroponics) in the same water system. Because Aquaponics can be done in a greenhouse, it may be located closer to major markets, so transportation expenses and emissions are reduced. At AquaRanch Industries, we specialize in fresh naturally grown tilapia fish and organic certified fresh grown herbs and vegetables. We begin this process with our own breeders so that we can spawn our own fish. This ensures that the fish we produce are not artificially, genetically or hormonally manipulated. AquaRanch starts with potable water and grows all the fish indoors in a controlled environment. This guards against the pollutants that are so rampant in our natural waterways. AquaRanch uses a proprietary filtration system to separate the fish waste from the water so that the fish are not swimming in their own excrement. After the primary filtration, the water flows to the grow beds where the herbs and the vegetables are grown. The roots of the plants hang down in the water and serve two purposes. First the roots directly take up nitrogen and other nutrients produced by the fish. Second, the roots act as a substrate for beneficial bacteria to break down harmful ammonia and nitrites to a less toxic form of nitrogen called nitrates. The fish are grown in round tanks so that a current can be maintained to stimulate the fish to swim against the current. This swimming activity creates a firm texture to the fish, which is more natural than a dormant pond raised fish. The amount of water that is discarded for cleaning purposes is far less than traditional aquaculture and is directed to the outdoor gardens as a tremendous source of nutrients for the garden produce. As a note; the fish are called naturally grown because the USDA currently has no designation for organic certification of fish.

The AquaRanch grow beds provide a barrier between the top of the plant and the root system, which hangs down in the nutrient rich water. The fish provide all the nutrients except for a few trace minerals. The plants grown are Organic Certified; therefore only organic certified pest control methods are used including biologicals like ladybugs and spiders. Weed control is not needed in this environment.

AquaRanch sells wholesale to grocery stores and from our Flanagan, Illinois location, as well as through farmers markets and Community Supported Agriculture, (CSA)'s. When you think of AquaRanch, think fresh and healthy! We have a continuous year around supply of naturally grown tilapia which we sell either whole or as fillets that we compliment with organic certified, site-grown gourmet lettuce, a variety of herbs, tomatoes, cucumbers, squash, sweet potatoes, potatoes, broccoli, and various varieties of peppers. Add to that our own signature Basil Vinaigrette dressing, and you can set your next dinner table with ease. Visit us on the web at www.aquaranch.com or call us at 815-796-2978 for more information.