

Discovering Aquaponics

By Susan Wahl

Aquaponics is the last thing I could have imagined my husband, John, and I getting involved with. We had never heard of a system for growing vegetables with fish water, up till now we had only grown aquatic plants. We are the owners of Natures Aquatics, a pond retail store in Baden, near Pittsburgh, Pennsylvania.

Searching for new products and methods related to ornamental koi, goldfish, aquatic plants and pond equipment has always kept us busy.

One thing we discovered last summer was just how effective fish waste water is for growing strawberries. Along the side of our store we planted ever-bearing strawberries for our granddaughter. I had doubts that they would survive, since the soil there was very poor and contained more rocks than dirt.

Since I never did have time to plant my garden, I planted 6 sweet pepper plants among the strip of berries. This area received very little rain so we would backflush the waste water from one of the fish sales bins to keep the area watered. The result was the biggest and sweetest berries we have ever tasted and my 6 pepper plants produced a *full* clothes basket of large, blemish free peppers. I was impressed and so were our customers.



Last November, when I found an ad from Nelson and Pade, Inc. for some classes on aquaponics, we quickly made arrangements to drive from Pennsylvania to Wisconsin. Their workshop spurred in us a desire to not only grow the vegetables for ourselves, but we could envision a place for the systems for our customers. Because so many of our customers desire to take their “wet pets” in during the winter, aquaponics is a better way to keep the fish healthy and provide fresh vegetables for the owners.

From our experience in pond culture, we had a good understanding of fish husbandry and knew what had to be accomplished with water quality. Our next order of business was to discover what type of system could be developed for our home use and maintain healthy water for our koi.

Therefore, we setup 5 totally different methods of

filtering the water and distributing it to different plant growing mediums with 4 lighting variables. The results were encouraging, as all the systems produced impressively large plants.

We quickly found the systems required added supplements with our fish stocking densities and since the fish tanks and planting areas were small (300 to 400 gallons) a method for adding supplements had to be developed. We set up small drip systems that seem to work very well.

I do believe that setting up a system that works well for the fish and plants is not complicated, but it is not as simple as some aquaponic systems on the internet are touted to be. Healthy fish and plants do require some form of added filtration. After our experiments over the winter months, we were extremely impressed with the health of our koi. They honestly came through the winter in better shape and health than we have ever seen!

Yes, we are now addicted to aquaponics. Stepping from the house directly into an attached greenhouse in the dead of winter and picking healthy, chemical and pesticide-free lettuce, peas, green beans, basil, swiss chard, tomatoes, peppers and strawberries was a blessing. We're excited to introduce aquaponics to our friends and customers.

About the Author: Susan Wahl, along with her husband, John Wahl, owns Nature's Aquatics in Baden, Pennsylvania



Photos: Left page—sugar snap peas grown in aquaponics. Right, top: Peas and greens, photo taken 1/20/10. Right, middle: Lettuces and peas, photo taken 2/17/10. Right, bottom: Beans, tomatoes and other crops grown in Susan Wahl's aquaponic system, photo taken 4/20/10.