

## Grow It Yourself: Diving Into Aquaponics

This is the VOA Special English Agriculture Report.

Aquaponics is the idea of producing vegetables and fish in the same closed system. It combines aquaculture, or fish farming, with hydroponics, a way to grow plants without soil. Supporters see aquaponics as a way to increase world food supplies and reduce climate change, groundwater pollution and overfishing.

Sylvia Bernstein says the idea is as old as nature.

SYLVIA BERNSTEIN: "Aquaponics is really a recirculating wetland system, so it's happening right on the banks of our lakes."

Ms. Bernstein grew plants in water with a chemical fertilizer for years. Then she discovered she could use wastewater from fish to grow organic vegetables and fruit.



SYLVIA BERNSTEIN: "Honestly, I was very skeptical and just couldn't believe that something as simple as fish waste could become a complete fertilizer. So I had to actually see a system that was in a friend's basement. But when I did, it changed my life."

That was three years ago. Ms. Bernstein built her first system with her son outside her home in Boulder, Colorado. Today she raises tilapia and trout. She feeds them once a day. Her plants grow in containers. There are no weeds in her aquaponics garden, and no need to worry about watering.

SYLVIA BERNSTEIN: "I, just this morning, pulled four radishes and some lettuce for lunch. In my greenhouse right now, I grow all sorts of herbs, tomatoes, peppers."

Ms. Bernstein started her own business called the Aquaponics Source. She has a YouTube channel, teaches aquaponics at the Denver Botanic Gardens and recently published a book.

Aquaponics farmer James Godsil says the Internet is helping many aquaponic gardeners connect and learn from one another. Three years ago, Mr. Godsil helped create an aquaponics farm in Milwaukee, Wisconsin, called Sweet Water Organics. In twenty-ten, he helped establish a foundation.

JAMES GODSIL: "The Sweet Water Foundation was dedicated to democratizing and globalizing the information and the methodologies required to advance this very Earth-friendly food production system, which, by the way, only uses about ten percent of the water normal farming does, and uses no pesticides. It's all natural."

Mr. Godsil is traveling to other countries to teach aquaponics.

JAMES GODSIL: "I was asked to go to Venezuela this March. And I'm working with people who have a project in Ecuador. I'm working with people in the Congo and Uganda and Tanzania."

Subra Mukherjee is with a group in Kolkata, India, called the Society for Appropriate Rural Technology for Sustainability. The group is working with the foundation to develop aquaponics in a community in West Bengal with poor soil conditions for growing food.

SUBRA MUKHERJEE: "So I believe technologies like aquaponics are ideal for these kinds of situations. We can actually bring it right into the middle of slums in the cities. So it becomes a very good model for urban and village-based communities."

And that's the VOA Special English Agriculture Report. Have you ever worked with aquaponics? Tell us about it at [voaspecialenglish.com](http://voaspecialenglish.com). I'm Jim Tedder.

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