



# Recirculating Farms Myths and Facts

Fact Sheet | July 2011

A RECIRCULATING FARM uses water rather than soil as a basis to grow food. These farms can grow plants (hydroponics), fish (aquaculture) or a combination of both plants and fish (aquaponics). The farms may be indoors, like in a greenhouse or other structure, or outside, depending on the climate. Their main feature is that the water used is cleaned and recycled, then continuously circulated throughout the farm.

Because recirculating farms are so efficient and clean, they can be located virtually anywhere — including in urban settings — and especially in places where green job opportunities and a stable source of fresh foods is most needed.

Following is a list of common misconceptions — “myths” — regarding recirculating farms, followed by the correct information on each point — “facts.”

**Myth:** Recirculating farm technology is still in the research and development stage and cannot be done on a commercial scale.

**Fact:** Recirculating farms are currently operating successfully throughout the United States and in many other countries. In fact, recirculating farms have been developing

for over 30 years in the United States, refining techniques and methods to increase production, profitability and environmental sustainability.<sup>1</sup> Academics, government and businesses across the country are conducting research and implementing new ways to further improve and expand these farms.

**Myth:** Recirculating farms are a risky investment.

**Fact:** Many recirculating farms are thriving and expanding. There are new farms starting up all around the United States. Research continues to enhance recirculating farming practices.

Information about starting a recirculating farm can often be obtained by contacting your state’s United States De-

partment of Agriculture extension office, attending conferences and taking courses. USDA extension offices can be found at: [www.csrees.usda.gov/extension/index.html](http://www.csrees.usda.gov/extension/index.html). A list of upcoming conferences and courses can be found at: [www.recirculatingfarms.org/links](http://www.recirculatingfarms.org/links).

**Myth:** A recirculating farm is expensive to start and operate.

**Fact:** Recirculating farms can vary greatly in size and purpose. They can be as small as a desktop for personal use or as large as a commercial operation. Farms often begin at a small size and scale-up over time. Entrepreneurs can create a small commercial-sized aquaponic farm for just over \$40,000.<sup>2</sup> Farms for personal use can be very inexpensive.

**Myth:** Recirculating farms are not as efficient as other forms of fish farming.

**Fact:** Recirculating farms outperform other types of fish farming in growth rates, scalability, diversity of products and flexibility in location. Importantly, they also are more eco-friendly and can provide quality food for consumers. Recirculating farms can produce a wide array of seafood, herbs, vegetables, fruits, flowering plants, seaweeds and more. The ability to grow multiple products at the same time allows for a more stable business model.<sup>3</sup>

Because recirculating farms are mostly closed-loop, they can be located in the communities that use the products, without concerns about ecological pollution. This also reduces transportation costs and cuts down on fuel usage and carbon emissions.

**Myth:** Recirculating farms use too much energy.

**Fact:** Recirculating farms can capture and repurpose waste to reduce energy needs and often use new innovations and techniques to lower energy demands. Various methods to supply energy are currently in use on recirculating farms: wind, solar, geothermal, even waste from the farm itself and recycled restaurant oils!

**Myth:** Recirculating farms use a lot of water.

**Fact:** Recirculating farms clean and recycle water that is continually re-used throughout the farm, reducing the amount of water needed to grow fish and plants. Many farms can achieve over 99 percent daily water retention — meaning just 1 percent of the water needs to be replaced (due to evaporation and waste removal). Because they are closed-loop, these farms can be located in-land, away from rivers and oceans, so there is no concern about intermixing

with natural waters or interfering with aquatic wildlife.

**Myth:** Recirculating farms are not ecologically sustainable.

**Fact:** Recirculating farms are designed to be energy and space efficient, and recirculate and re-use water, all with minimal waste. Some farms can repurpose waste for other uses. Because these farms can be an entirely closed system, they can be located virtually anywhere, especially in the communities that use the products. This also means reduced fuel for transport and shipping.

**Myth:** All fish from farms are unhealthy, and bad for consumers to eat.

**Fact:** Recirculating farm fish are raised in a controlled environment with naturally filtered water to achieve optimal growth and health. These farms are biosecure - parasites, diseases and pollutants rarely get in. This reduces and can even eliminate the need for antibiotics or other drugs and chemicals. This means the seafood (and plants!) from these farms can be cleaner, and a healthy choice for consumers.

## Conclusion

More sustainable methods of farming are essential for creating green jobs and empowering communities to grow their own local food. The U.S. government should play a vital role in developing opportunities to promote recirculating farms in the United States. To learn more go to: [www.recirculatingfarms.org](http://www.recirculatingfarms.org).

1. Timmons, M.B. and J.M. Ebeling. (2007) "Recirculating Aquaculture." Cayuga Aqua Ventures at 1.
- 2 Food & Water Watch. (September 2009) "Commercial Facility Based on the University of the Virgin Islands' Aquaponic System."
- 3 Bedwell, Susan. Personal email exchange. President/CEO of Premier Organic Farms, January 12, 2010. On file at Food & Water Watch.

### For More Information:

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