Aquaculture in Texas could bring in millions, improve fish products

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Aquaculture has come to Texas, and in 10 more years could be a $1 billion industry.

Also known as fish farming, aquaculture is the cultivation of plants and animals for economic reasons under controlled and semi-controlled conditions.

Jim Davis, extension fisheries specialist at Texas A&M, said that because "wild-caught" fish and shellfish harvests have not kept pace with the steadily increasing per capita consumption, and the world's oceans are limited, aquaculture is the only way to meet the supply.

That supply is currently being met by importing fish from other countries. For example, compared to Japanese per capita shrimp consumption of 12 lbs., Davis estimates the average United States per capita consumption of shrimp to be about 5.2 lbs., 80 percent of which comes from Japan.

"With the exception of petroleum products, the No. 1 deficit in balance of payments is fish and shellfish," Davis said. "As a result, we are becoming a net importing country."

The 1987 federal balance of payment deficit for fish and shellfish was $17.4 billion, Davis said. In other words, the United States imported $17.4 billion more of these products than it sold.

Although Japan has a plentiful supply of coastal salt water, Davis said most of what Japan exports is not wild-caught, but pond-grown aquaculture products.

Furthermore, Davis said the Japanese are developing aquaculture in other countries as well.

"They are the major force behind the production of shrimp in Brazil," he said. "Their money is out developing aquaculture all over the world. We have got to develop aquaculture if we're ever going to get out of this net importing situation."

If aquaculture does in fact become a $1 billion industry, Davis predicts the United States will be able to reduce its dependence on foreign fish by about one half.

Besides providing extra income, aquaculture will improve the quality of fish products.

"Farm-raised fish can be harvested at the peak of freshness, time, and size resulting in a better, higher quality product for the same price," Davis said.

In addition, Davis said unlike wild-caught fish products, the producer is able to make changes in the environment conducive to better quality.

Feed, for example, can be altered to produce bigger, better tasting fish in much the same way cattle feed is manipulated to provide leaner beef, he said. With fish farms, however, the specially formulated food is the only thing for fish to eat.

Retail quality would also improve, since the farm-raised product would have to meet more stringent U.S.D.A standards along the process, not just before sale.

Davis said the imported products also met government standards, but just barely. In addition, he said inspecting all the imported fish products was very expensive.

From an environmental standpoint, aquaculture will benefit those areas and animals of Texas that are environmentally sensitive.

"Fears have been expressed that aquaculture might in some way interfere with the wild fisheries of the state," Davis said. "However, because the fish farmer can make money only by keeping all of his fish in his ponds, these fears are unfounded."

In actuality, Davis said the fish a farmer raises in his pond take pressure off the wild catch.

From a coastal standpoint, Texas is uniquely suited for aquaculture production since it has the longest shoreline of any other state in the Gulf of Mexico with the exception of Florida, where half the coastline is on the Atlantic Ocean and not suitable for aquaculture use.

Davis also said Texas was blessed with a mild climate and more shallow, saltwater aquifers.