

Ethanol facility's intention: Go fishin'

A Wisconsin plant's recycling plans include establishing a big tilapia farm.

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A plan to recycle energy at a Wisconsin ethanol plant is turning into a fishing expedition with hopes for a big catch.

Owners of Renew Energy plan to harvest about 4.5 million pounds of tilapia at an ethanol plant under construction in Jefferson. The plant would be among the world's largest indoor tilapia farms, and U.S. seafood experts say it could eventually play a big role in reducing imports of the popular fish.

Paul Olsen, one of the project's owners and originators, said once Renew Energy starts pumping out fish, which he hopes will be within a year, its experts could visit other ethanol plants to help them start their own tilapia operations.

"A lot of ethanol plants will look at it and say, 'Hey let's build a tank,' " he said.

After a sharp decline in ethanol profits in the past year, biofuel plants across the nation have been looking for ways to increase revenue by marketing various products related to production, such as the spent grain for animal feed.

When it comes to large-scale fish production, however, some Iowa producers say they will stick to tilapia on a plate for the time being.

Walter Wendland, president of the Iowa Renewable Fuels Association and of the Golden Grain Energy ethanol plant in Mason City, said he would rather rely on proven energy-efficient technology than be a guinea pig for a fish farm.

"All of these plants are looking at where their niches are for becoming more profitable, because our industry may not be much more profitable down the road," Wendland said. "In that respect, I think it's a good idea. But if everybody does it, it's probably going to take away from the profitability really quick, just like the ethanol industry in a way."

Experts: An idea with potential

Fish and fuel might seem an odd match, but Renew Energy officials say the proposed tilapia tanks would be integral to their plant's energy efficiency plans. Hot steam that would otherwise evaporate from the plant is condensed into a liquid and carried in pipes through the fish tanks, where it warms the water to between 80 and 85 degrees.

Such warm water is ideal for tilapia because they thrive and reproduce best in a heated environment; they die if temperatures drop much below 50 degrees.

About 95 percent of tilapia consumed in America is imported. Most U.S. tilapia farmers sell live, whole fish to high-end restaurants and Asian grocers. The Wisconsin fish farm plans to start out that way, targeting buyers in Chicago and the East Coast, Olsen said.

But Renew Energy is eyeing the elusive large-scale frozen and filet market currently dominated by China.

Some companies are looking for other sources of tilapia in light of recent concerns about the safety of food imports from China and elsewhere. Earlier this month, Mississippi agriculture officials ordered stores to pull Chinese catfish from their shelves after samples tested positive for federally banned

antibiotics. Wal-Mart, the nation's largest retailer, removed all Chinese catfish from its stores nationwide.

Olsen said representatives from Wal-Mart and McDonald's have expressed interest in his future tilapia operation. Cargill - whose animal nutrition division is a global marketer of fish feed - is consulting on the project, he said.

"It's kind of unique in how fish get brought into this country ... and what goes into the store and what people think they're buying and eating," Olsen said.

Whether a U.S. tilapia farm can compete with farmers in Asia and South America comes down to scale, said Ronald Malone, a Louisiana State University professor who is consulting on the Renew Energy project. "The first issue is to get the cost of production down," he said.

The catfish industry in Mississippi has reached hundreds of millions of fish per year and has a coordinated feeding, handling and processing system that makes it competitive, Malone said. Demand for tilapia is growing, but there aren't yet enough U.S. producers serving processed tilapia filets to compete effectively in the global market, he said.

Foreign farmers benefit from lower land costs, electricity, labor and naturally warm water.

Fresh tilapia filets from U.S. suppliers cost about \$7.50 a pound, whereas imported fresh filets sell for about \$2.50 to \$3 per pound. The difference in frozen filets is similar.

Tilapia experts say if larger U.S. farms can cut operating costs, they might be able to sell filets for less.

Retailers want domestic fish because it shows they're supporting American agriculture, and they worry about whether imports are safe, said Kevin Fitzsimmons, treasurer of the American Tilapia Association and an environmental sciences professor at the University of Arizona in Tucson. They'll pay a premium for that security, he said, "but the question is, is that a nickel a pound or 50 cents a pound?"

Large-scale tilapia farms in the United States will have to head toward the filet market because the live whole tilapia markets are saturated, said Bill Varano, a tilapia farmer in eastern Pennsylvania and vice president of the American Tilapia Association. He said Renew Energy isn't alone in its idea, as other large fish farms are considering expansion. An almost 4 million pound-per-year fish farm in Virginia announced recently that it wants to produce 40 million pounds of the fish.

"They have to market it as pure, clean, domestically raised seafood. This will help the entire seafood biz, not just tilapia," he said. "That's the trick. And that's going to be the trick for us in U.S. agriculture, whether we're talking about beef or chicken or fish. We have quality material."

Ethanol and fish: Natural partners?

Olsen said he hasn't heard of another ethanol plant venturing into large-scale aquaculture. He anticipates good revenue from the combination fish farm-ethanol plant.

Tilapia is now the sixth most consumed seafood in the United States, according to the National Fisheries Institute, a trade association.

It appeals to the American palate because of its flaky texture and mild taste that marries well with other flavors and sauces, Fitzsimmons said.

"Americans don't like fishy fish. Most Americans like something really mild," he said. "Professional chefs like it because you can do anything with it - bake it, fry it, saute it, stuff it, blacken it, broil it, whatever."

Chain restaurants like tilapia because it is available year-round; retail stores stock the fish because it's

inexpensive and high quality, he said.

"We consider it the chicken of aquaculture," Fitzsimmons said. "You can go out and buy your Kentucky Fried Chicken ... or get your chicken Kiev or cordon bleu. You pay anywhere from \$2 a plate to \$25 a plate."

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