

Hybrid Catfish Nears Commercial Use

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5:47 PM PDT, May 1, 2005

MOBILE, Ala. — Like any farmer, catfish growers have a taste for higher yields. Now after three decades of research, a hybrid catfish developed at Auburn University may satisfy that appetite for profit. There are other hybrids in the ponds -- strains of catfish crossed naturally -- but Auburn's hybrid catfish is the first manually fertilized for commercial use, according to its developers.

It's expected to boost production because it grows faster than other catfish, says fisheries professor Rex Dunham, who helped develop the hybrid in a career-spanning effort since 1978.

"The bottom line in the catfish industry is how long it takes the fish to reach market size. So the rate of growth is what is important," Dunham said. "In genetics, we're always trying to improve."

A few individuals have produced the hybrid manually in small quantities based on Auburn's research, but this will be the first business where the hybrid is the sole product, Dunham said.

Alabama's \$500 million a year catfish industry has about 230 growers, according to Butch Wilson of Dean Wilson Farms in Marion Junction. Wilson, chairman of the Alabama Catfish Producers organization, said the industry gave financial backing to the Auburn research.

"We've put a lot of money into it trying to come up with a better yielding fish," Wilson said.

He said the Auburn hybrid is shaped a little different from more common catfish.

The head is smaller, but that allows for more flesh. It's a cross between a female channel catfish and a male blue catfish. Since the two don't mate naturally, it was a challenge for researchers to develop and refine manual fertilization techniques that will hatch enough fish for production on a commercial scale.

Eggs and sperm are removed from the fish, mixed together and fertilization accomplished by activating these gametes with water.

"We're going to start hatching them here in a couple of weeks," said Sam Lawrence, CEO of Eagle Aquaculture, a private company created to commercialize the AU Hybrid Catfish technology.

Eagle Aquaculture is a subsidiary of Aetos Technologies, a technology firm company Auburn and a group of private investors co-founded in 2003 to bridge the gap between university-based research and the commercial market.

Once the hybrids grow to fingerling size -- about six inches -- they can be sold. That will probably be this fall, Lawrence said.

"Because the Alabama farmers sponsored this research, they're going to get first shot at the fish. If we've got more fish than they are willing to buy, then we will sell to whoever," Lawrence said.

The hatchery is located in the Pike Road community on U.S. 231, near Montgomery. Lawrence declined to release an estimated count in the first batch.

Catfish only lay eggs once a year and it can take several years to reach market size. The hybrid reaches market size up to twice as fast and with less feed than the channel catfish.

There's no difference in taste, Lawrence said.

Because of its superior performance, the hybrid is worth more to the farmer than the channel, so the hybrid will be priced higher. Channel catfish fingerlings typically sell for about 1.25 cents per inch, or 7.5 cents for a six-inch fingerling.

"We haven't determined the exact price yet, but ultimately the market will drive the price through supply and demand forces," Lawrence said.

The major change farmers will see is that the hybrid will be "single-batched."

This means that each crop of hybrids will be grown from fingerling to food-fish size one "generation" at a time. This can be done on approximately an annual basis due to the faster growth of the hybrid. Currently farmers have multiple batches of channels in a pond at any one time.

Besides faster growth, the hybrid catfish converts feed more efficiently and is more disease-resistant, according to the Alabama Agricultural Experiment Station fisheries researchers on the project.

Farmers grow catfish in high density ponds and use supplemental feed, grain-based pellets.

River catfish are at extremely low densities and eat natural food so it is difficult to compare growth to a hybrid, Dunham explained.

"If the river catfish was placed in a farm environment, the hybrid would grow much, much faster," he said.

Farmers raising the hybrid catfish won't have to change routine much, but it involves increasing the feeding rate. It reduces their need for disease treatment, and makes it easier to remove the fish from the pond.

"Within five years, we want to be producing around 10 percent of the fingerling market," Lawrence said.

The market for the U.S. farm-raised catfish industry currently is about 700 million fingerlings annually.

Dunham worked with Eagle on a consultant basis as chief scientific officer and technical director.

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