

# USDA, MSU form partnership for

## AQUACULTURE RISK MANAGEMENT

Jim Lytle



By Bob Ratliff, MSU University Relations

Managing a crop you can't see is risky business, but that's one of the challenges of growing catfish and other aquaculture products. Helping producers reduce their risks is the goal of a recently formed partnership between Mississippi State University and the U.S. Department of Agriculture.

Keith Coble and Terry Hanson, both MAFES agricultural economists, are the principal investigators for the four-year, \$3.6 million national risk management feasibility program for aquaculture. They are working with USDA's Risk Management Agency and Federal Crop Insurance Corp.

Sen. Thad Cochran and Rep. Chip Pickering supported the agriculture department's funding of the risk management study. They note that the research will help USDA assess producer risks and develop risk management tools to help farmers meet production challenges.

"Once implemented, a well-suited risk management tool could help protect farmers from economic losses due to fish disease and poor water quality," Cochran said.

Producers of the nation's top farm-raised aquaculture species — catfish, salmon, trout and baitfish — received almost \$700 million for their products in 1999, the most recent year with complete sales data. Catfish accounted for almost \$500 million of that total and will be the initial focus of the research.

"Many aquaculture producers know they may lose about half of the fish they place in a pond to birds and other predators, disease, low oxygen levels and other causes," Coble said. "What they don't have is specific data on risks associated with each of the causes of losses."

In addition to assessing the risk factors for producers, the project will apply the expertise of MSU personnel to developing risk management plans for catfish and other aquaculture production systems.

"MSU has a long history of aquaculture research and currently has more than two dozen scientists working in the areas of nutrition, aquaculture disease

*Uncertain fish harvests are one production challenge facing catfish and other aquaculture producers every year.*

management, water quality, fish behavior and economics," Hanson said. "This project will bring together these scientists, other nationally recognized personnel and producers to find ways to quantify the risk factors and develop affordable risk-reducing products."

One of the ways producers of cotton, corn and other crops manage their risks is through the purchase of federal crop insurance. However, traditional crop insurance is hard to apply to aquaculture, in part because the time it takes to produce a crop of fish is longer and because it is difficult to determine fish numbers and pounds in the pond.

"It takes about 18 months to grow a catfish to harvest size, so the risk factors are spread over a much longer time than with row crops," Hanson said.

Indianola catfish producer Seymour Johnson agrees that the types of crop insurance programs currently available to row-crop producers may not be the answer to the needs of the aquaculture industry, but he noted that some protection against losses is needed.

"There is a need for catastrophic insurance, particularly for power failure and disease epidemics," he said, adding that those factors can threaten millions of dollars' worth of fish at almost any location in Mississippi's Delta counties.

The agricultural economists hope to find ways of reducing the risks associated with those and other factors that are acceptable to producers.

"We're looking at all aspects of the production systems and will be applying all the available expertise to making those systems less vulnerable to disease and other threats to fish," Hanson said. "This is a new approach to risk management in agriculture and one we think will work well for aquaculture enterprises."