Developing Aquaculture in North Carolina

The Need: Aquaculture is increasing at a rate of more than 10 percent per year and is recognized by the U.S. Department of Agriculture as a major growth area for U.S. agriculture in the 21st century. Indeed, the United Nations Food and Agriculture Organization predicts that half the seafood consumed by adults of the next generation will be farmed. With abundant intellectual, land and water resources, North Carolina is well positioned to play a major role in a global transition to seafood farming, to produce new and genetically superior strains of farmed fish and shellfish and to reap the economic benefits of aquacultural growth.

Serving the Need: Just a decade or so ago, North Carolina aquaculture consisted of trout in the mountains and a few catfish ponds elsewhere in the state. Thanks in large measure to aquaculture research and extension programs in the College of Agriculture and Life Sciences, North Carolina now produces hybrid striped bass, tilapia and Southern flounder. College of Agriculture and Life Sciences researchers pioneered methods of raising hybrid striped bass in ponds. We also:

- Established a national breeding program for hybrid striped bass, which potentially could expand striped bass farming 10-fold;
- Developed a new waste treatment technology which is being adopted by the tilapia industry that virtually eliminates environmental impacts; and
- Established the first production facility for flounder, a fish with twice the market value of some established species.

We’re now working on developing superior strains of trout and flounder.

Impact beyond North Carolina: Aquaculture is North Carolina’s fastest growing agri-food business. The farm gate value of North Carolina aquaculture products along with feed and processed products is approximately $55 million annually. North Carolina is currently the second largest producer of rainbow trout in the U.S., while raising hybrid striped bass in ponds is the fourth largest type of fish farming in the country. Tilapia farming is also growing rapidly, with North Carolina now supplying more than 10 percent of domestically farmed tilapia. Other species farmed in the state include catfish, eels, crawfish, clams and oysters. And new species with excellent promise for substantial economic returns include Southern flounder and sturgeon for caviar. In all these areas, College of Agriculture and Life Sciences research and extension programs are leading the way, providing opportunities for economic development.

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