

Maine Company Wins \$657,000 National Science Foundation Grant

Brunswick, Maine: The National Science Foundation has awarded a major grant to Acadia Harvest Inc. in support of the company's research, development and commercialization efforts. Over the next two years, the company will be expanding its efforts to achieve commercial scale, land-based, indoor marine fish culture with low to zero waste. A commercial launch could take place in 2017 – 2018.

Acadia Harvest (AHI) was established in 2011 to develop a land-based aquafarm in Maine for marine species. The company has grown premium fish for test marketing and has advanced the technology of recirculating aquaculture systems (RAS) used for indoor culture of fish and other species. The focus is on two marine fish, the California yellowtail (*Seriola lalandi*), native to the Pacific Ocean, and the black sea bass (*Centropristis striata*), an Atlantic Ocean species. A major R&D effort has been to culture additional marine species using fish wastes as a nutrient source, both to lower operating costs and to develop additional marketable products.

The company's CEO, Ed Robinson, related his team's excitement regarding the new grant, "We are committed to bringing new technology to bear on the challenge of growing high quality seafood in Maine. The confidence expressed in our project by the experts at the National Science Foundation is gratifying, and we are eager to bring this technology to market as part of large scale aquafarming."

Acadia Harvest's original research was initially funded in part by the Maine Technology Institute (MTI), with project work conducted at the University of Maine Center for Cooperative Aquaculture Research (CCAR). Based upon that success, in 2013 the National Science Foundation (NSF) awarded AHI a Phase I Small Business Innovation Research (SBIR) grant for \$180,000 to continue the work. The project was successfully completed in 2014, and now NSF has awarded AHI this new Phase II SBIR grant. This will allow the company to increase the scale of its research project ten-fold, and to add new species for detailed studies in an integrated salt water system.

In addition to California yellowtail and black sea bass, AHI has been working with marine worms, microalgae and shellfish. The company has test marketed both fish species, working with distributors in Maine, Massachusetts and California. Thanks to positive feedback and strong market demand for the fish, the company is now growing a larger pilot production batch of California yellowtail and black sea bass for sales later this year. This project has received funding from both MTI and Coastal Enterprises Inc. The company is now arranging financing to develop a commercial scale production facility at a site in the village of Corea, town of Gouldsboro, Maine.

As the world's population continues to grow, there is increasing demand for high quality, safe seafood. Yet the ocean harvest of most marine species like the California yellowtail and black sea bass has been flat or declining for 40 years. The global aquaculture industry has helped to fill the gap, but nearly 90% of US seafood consumption is now imported, causing a \$10 billion trade deficit. Acadia Harvest seeks to leverage leading edge technology to help deliver fresh seafood from Maine to US consumers.