

## **Implementation of the Technology Transfer Initiative**

### **Current Accomplishments and Key Actions for FY'13**

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During Fiscal Year 2012, limited NOAA funding was made available for grants through the Sea Grant Aquaculture Research grant competition, the NOAA Small Business Innovation Research Program (SBIR), and for work at NOAA Science Centers. The initiative has led to outcomes including the following:

- Progressive alternative aquaculture feeds research continues to reduce reliance on wild fish for feed. NOAA researchers and their partners have succeeded in
  - issuance of [The Future of Aquafeeds](#), a joint report from NOAA and the USDA that details how aquaculture feeds can be produced with low or no fishmeal and fish oil.
  - development of high-efficiency aquaculture feeds that reduce effluent discharge;
  - development of a process to stabilize seafood processing trimmings so that small lots can be stored and transported for use in aquaculture feeds,
  - identification of the essentiality of the nutrient taurine which, when added to aquaculture diets, significantly increases how much (up to 100%) fishmeal can be replaced with plant proteins for some highly carnivorous species. NOAA is working with USDA and other institutions to secure FDA approval for the use of taurine in fish feeds, which will prove beneficial to U.S. agriculture and fish feed producers, as well as eliminate the need for fishmeal in some aquaculture feeds.
  
- Improved feeds for baby marine fish have been used successfully to rear larval pompano, red drum, cobia, and other marine fishes. Along with USDA, several open-formula diets have been made available to researchers worldwide as reference diets.
  
- Through various grants and regulatory coordination, NOAA is working to support advanced offshore shellfish aquaculture in several locations including Rhode Island, Massachusetts and California. These types of projects could serve as a complements to fishing for watermen and improve seafood supply available to processors and marketers...

- Advanced techniques for growing numerous fish species including red porgy, vermillion snapper, and sablefish were developed in NOAA labs and made available to interested companies for commercialization.
- Aquaculture of filter feeders and seaweeds was developed by NOAA and partner labs to remove nutrients from urbanized estuaries and to help municipalities with wastewater treatment costs.
- NOAA intramural and extramural research has helped to develop several modeling tools to assist planners and businesses in siting aquaculture in locations which will result in maximizing returns economically and improve environmental performance.