Rise of Sustainable Aquaculture will Benefit Rhode Island

By DONALD BACOAT

Demand for seafood is outpacing the supply that can be produced from our oceans. As a consequence, sea farming is becoming an increasingly popular production method to help meet rising demand for all types of delicious and healthy seafood, such as clams, oysters, salmon, striped bass and shrimp. Sustainable sea farming is significant to Rhode Island because of benefits associated with a stronger economy, a fresh supply of healthy seafood and ecosystem services that aid the state’s environment.

The practice of sea farming is also known as aquaculture and about half of the seafood we consume is derived from this practice. Yearly aquaculture production is valued at $1.5 million in Rhode Island, $1 billion in the U.S. and $70 billion worldwide. With a growth rate of 8.8 percent per year since 1970, aquaculture is the fastest-growing food production system in the world.

Technological advancements in aquaculture have increased its environmental sustainability. Alternative treatments to keep aquacultured fish healthy have helped to decrease dependence on antibiotics — a major concern for organic suppliers and consumers. Plant sources of protein are used as an alternative to partially replace sardines, anchovies, herring and menhaden in the fish feeds of farmed carnivorous fish. This is important in helping to relieve pressure on our ocean’s fisheries. Water quality is improved via recycling water in re-circulating systems, nutrient-recycling techniques and by lowering concentrations of protein in fish feed.

Aquaculture production has the potential to be an important part of our economy. Increased production of seafood in the United States will reduce the $9.2 billion national seafood trade deficit, increase our food security and provide much needed jobs. A preliminary analysis from the National Oceanic and Atmospheric Administration shows that with essential legislative mandates and funding, 75,000 jobs could be created by 2025 as we increase domestic aquaculture production.

In addition to benefiting our economy, food produced from aquaculture benefits our health. The Journal of the American Medical Association has reported that health benefits associated with eating fish — finfish and shellfish — far outweigh possible harmful risks from eating seafood. People who eat one to two servings of shellfish and fish per week, such as quahogs, stripers, bluefish and especially salmon, benefit from omega-3 fatty acids, which have been found to reduce the incidence of coronary heart disease by 36 percent and total mortality by 17 percent.
The Food and Drug Administration and Environmental Protection Agency’s advice that women of childbearing age and young children should avoid eating king mackerel, sharks, swordfish and tilefish has caused some confusion about the benefits and risks of eating fish. These four particular types of fish contain high levels of mercury that could harm nervous system development in unborn babies and young children; however, there is a need to balance risks and awareness of species that have high mercury contaminants. Avoiding eating fish altogether because of this confusion could result in thousands of annual deaths from coronary heart disease and poor nervous system development in children.

Rhode Island’s production of shellfish is an excellent example of sustainable aquaculture that aids our environment. Some of the best oysters in the United States are farmed right here in Rhode Island’s coastal ponds, and, as an added benefit, they also filter the seawater in our lagoons to remove excessive phytoplankton that could cause harmful algal blooms. Rhode Islanders benefit in three ways: the production of fresh, high-quality shellfish; the ecosystem services shellfish provide; and the economic benefit of a vibrant industry.

Since water covers more than 70 percent of the earth’s surface, why not efficiently utilize that resource to grow sustainable seafood? Currently, only 1.8 percent of our food is produced from the sea. Clearly, when practiced sustainably, aquaculture can benefit our economy, human health and our environment. The benefits associated with providing healthy seafood to populations around the globe are numerous and Rhode Islanders would be wise to embrace and support sustainable methods of aquaculture.

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