



Aquaculture in Rhode Island

2011 Annual Status Report



Harvested oysters, ready for market.
Photo courtesy of Mr. Terry Greene

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Rhode Island Aquaculture Industry - 2011

At a Glance

- The number of farms in Rhode Island increased from 38 to 43
- The total acreage under cultivation increased from 141 to 160.25
- Oysters remained the number one aquaculture product with 4,074,186 sold for consumption
- The farm gate value of aquaculture products for consumption was \$2,459,761
- Restoration project supply and monitoring brought an additional \$534,068 to the aquaculture industry
- Combined value of aquaculture products for consumption and restoration was \$2,993,829
- The number of aquaculture farm workers increased to 84

Introduction

The year 2011 was another year of positive growth for the aquaculture industry in Rhode Island. The growth in value was 5.4 percent while the growth in number of farms and total acreage was 12 percent. Five new farms were permitted and their first harvests should be noted in 2012 and 2013. One of the farms is growing blue mussels in Rhode Island Sound which is a diversification of species and location. The growth of the aquaculture industry in Rhode Island reflects awareness of the health benefits of eating seafood and the consumer trend of purchasing local products.

How the figures were derived

Harvest figures came from the yearly CRMC aquaculture questionnaire distributed to all leaseholders. All reports are taken as an accurate value. Monetary figures for this report were calculated by averaging an estimated yearly average price from multiple sources. This figure was then multiplied by the numbers reported by growers in the yearly CRMC report to arrive at the figures used in this report. Figures from the aquaculture-associated industries came from the principals involved in these privately held companies. Seed sales are not included in the report because that data involves only two aquaculturists and is proprietary. The figures cited are for gross sales of aquaculture-related products.

Farm Production

The farm gate value of Rhode Island grown shellfish increased 5.7 percent from 2010. Twelve RI aquaculturists participated in the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Environmental Quality Incentives Program (EQIP) Oyster Restoration in 2011. In total those aquaculturists received \$531,868 for their work with the EQIP. Including the restoration work, the aquaculture industry total farm gate value for 2009 was \$2,993,829. Restoration work is considered to be a public enhancement project, but the products used in that project were from the aquaculture industry. The figures used in the following graphs do not include the value of the restoration work because the comparison with the value from previous years' reports would be skewed.

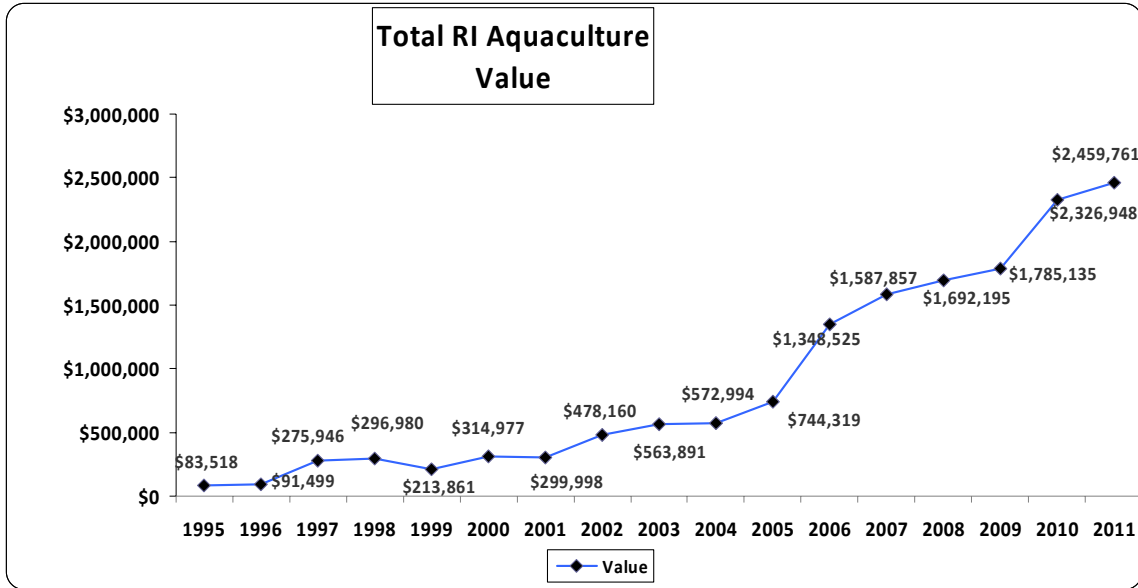


Figure 1.
Total values are for shellfish grown for consumption.

The shellfish figures presented in this report are comprehensive representations. The dominant species in the RI aquaculture industry continues to be the American oyster, with 4,074,186 pieces sold this year. Hard clam production was a distant second with 58,400 pieces sold. Three thousand pounds of blue mussels were grown this year. The number of farms active in Rhode Island aquaculture at the end of 2011 was 43, with cultivation of 160.25 acres, the result of five new farms added in 2011. Production numbers should be reflected slightly next year increasing thereafter.

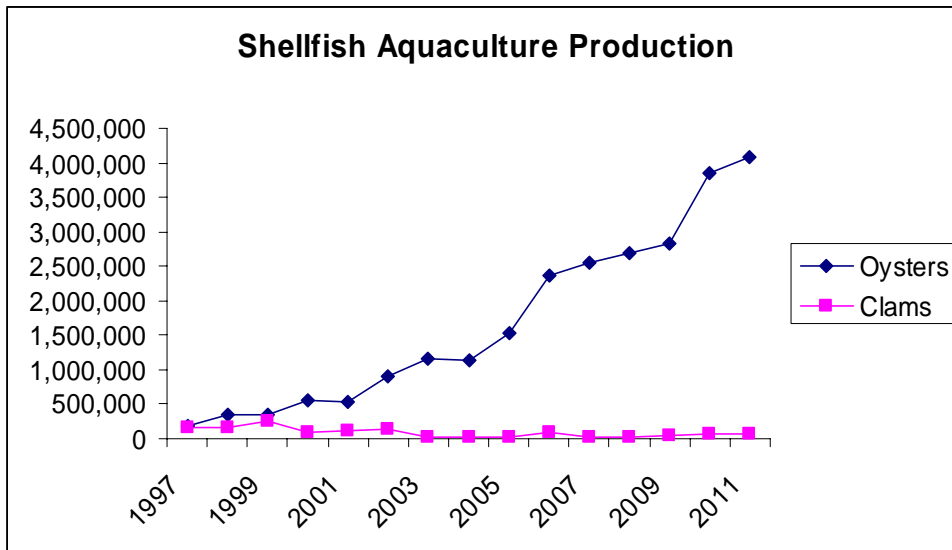


Figure 2.
The American oyster remains Rhode Island's dominant aquaculture product.

In 2011 the production per acre of aquaculture in Rhode Island was \$17,445 not including the new farms which had no production as of this report. Farm-related employment increased with the largest change in the year-round full time positions.

Aquaculture Employment

	Full Time	Full Time	Part Time	Part Time	
Year	Year Round	Seasonal	Year Round	Seasonal	Total
2006	17	8	17	15	57
2007	14	2	28	17	61
2008	12	1	25	24	62
2009	14	3	25	20	62
2010	17	4	30	28	79
2011	23	3	26	32	84

Figure 3.
Aquaculture farm related employment statistics.

How much aquaculture was there in RI through 2011?

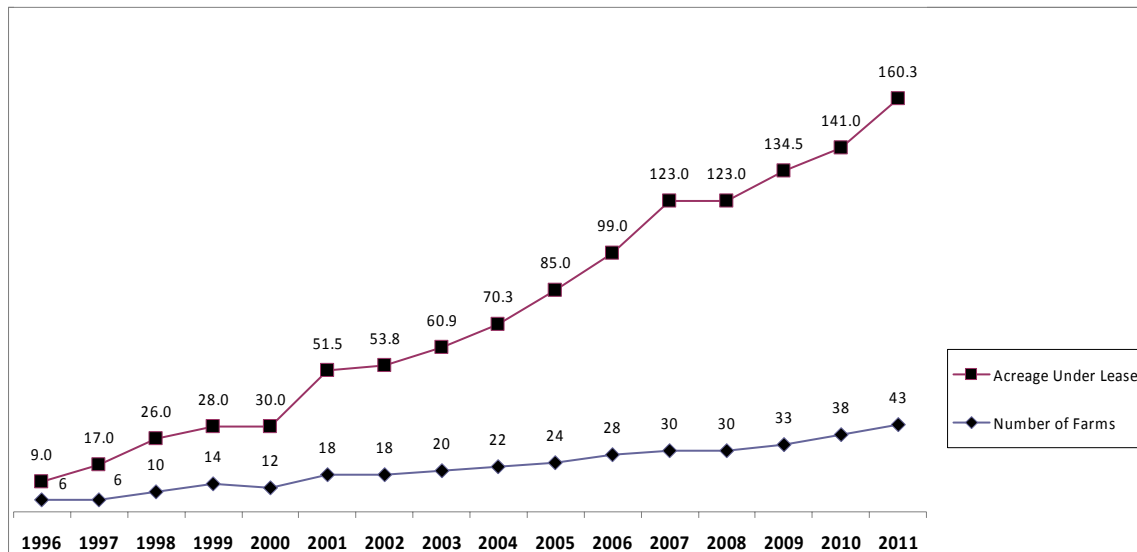


Figure 4.
Five new leases increased the farmed acreage to 160.25 in 2011.

Farm area summary:

- 43 farms
- Total area in all RI waters - 160.25 acres
- Narragansett Bay and Block Island- 87,723 acres/85.1 acres of aquaculture = 0.097% of total
- South Coastal Ponds (listed below) - 3963.70 acres/75.15 acres of aquaculture = 1.9%

Total Aquaculture Acreage by Coastal Pond				
Year	Winnapaug	Ninigret	Potters	Point Judith
2000	5	1		2.5
2001	5	1		2.5
2002	5	1	6.9	21.5
2003	5	1	6.9	21.5
2004	5	1	6.9	38.5
2005	6	2	6.9	38.5
2006	6	2	6.9	38.5
2007	8	4	6.9	38.5
2008	8	4	6.9	38.5
2009	8	10	6.9	38.5
2010	8	16	6.9	38.5
2011	8	16	6.9	44.25
Total for all south coastal ponds 75.15				

Figure 5.

Aquaculture acreage for RI south coastal ponds

The current percentage of acreage of aquaculture leases in each coastal pond is:

- Ninigret Pond - 1.01%
- Winnapaug Pond - 1.69%
- Potters Pond - 1.91%
- Pt. Judith Pond - 2.86%

Universities

Two educational institutions conduct aquaculture research activities, extension programs, and academic programs in Rhode Island. Both Roger Williams University (RWU) and the University of Rhode Island (URI) are centers of excellence in the field of aquaculture. Both universities have professional pathology testing capabilities and are assets to the shellfish aquaculture and wild harvest industries. URI has recently completed a study of hypoxia occurrence and survival for upweller conditions. URI has an on-going study of shellfish survival for different subaqueous soils in the coastal ponds

and Narragansett Bay. Extension projects at RWU include the oyster gardening program (OGRE), the aquaculture training course, a quahog public enhancement project partnering with the RI Shellfishermen's Association, and a clam and oyster planting density/mortality study with variable sediment types.

Outlook for 2012

Seafood is an important component of the economy and the foundation for many communities in Rhode Island. According to recent a United Nations Food and Agriculture Report, aquaculture will fill the increasing world demand for seafood. The Rhode Island Seafood Marketing Collaborative has been charged with a number of tasks including facilitating opportunities to increase demand for local seafood. RI aquaculture is a major part of the local seafood movement and in fulfilling the increasing demand for all seafood. The steady growth of aquaculture and the diversification of species and methods illustrate the industry's response to consumer demands. Aquaculture in RI uses public trust submerged lands to supply seafood to the consumer and businesses to the state. Please enjoy the benefits that aquaculture provides.