



Aquaculture in Rhode Island

2012 Annual Status Report



Photograph by Jeff Gardner

**Prepared by:
David Beutel
Aquaculture Coordinator
Coastal Resources Management Council
4808 Tower Hill Rd.
Wakefield, RI 02879-1900**

CRMC Council Members:
Anne Maxwell Livingston, Chair
Paul E. Lemont, Vice Chair
David Abedon
Tony Affigne
Raymond C. Coia
Janet Coit, DEM Director
Guillaume de Ramel
Donald Gomez
Michael Hudner
Jerry Sahagian

Rhode Island Aquaculture Industry - 2012

At a Glance

- The number of farms in Rhode Island increased from 43 to 50
- The total acreage under cultivation increased from 160.25 to 172.55
- Oysters remained the number one aquaculture product with 4,303,886 sold for consumption
- The farm gate value of aquaculture products for consumption was \$2,822,734
- Restoration project supply and monitoring brought an additional \$189,873 to the aquaculture industry
- Combined value of aquaculture products for consumption and restoration was \$3,012,607
- The number of aquaculture farm workers increased from 84 to 105

Introduction

The year 2012 was another year of positive growth for the aquaculture industry in Rhode Island. The growth in value for shellfish for consumption was a significant 14.8 percent while the growth in total acreage was 6.5 percent. Seven new farms were permitted and their first harvests should be noted in 2013 and 2014. 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 is proprietary. The figures cited are for gross sales of aquaculture-related products.

Farm Production

The farm gate value of Rhode Island grown shellfish for consumption increased 14.8 percent from 2011. Five RI aquaculturists participated in the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Environmental Quality Incentives Program (EQIP) Oyster Restoration in 2012. In total those aquaculturists received \$189,873 for their work with the EQIP which is a decrease of \$341,995. Including the restoration work, the aquaculture industry total farm gate value for 2012 was \$3,012,607 which is a slight increase of 0.6 percent from 2011. 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.

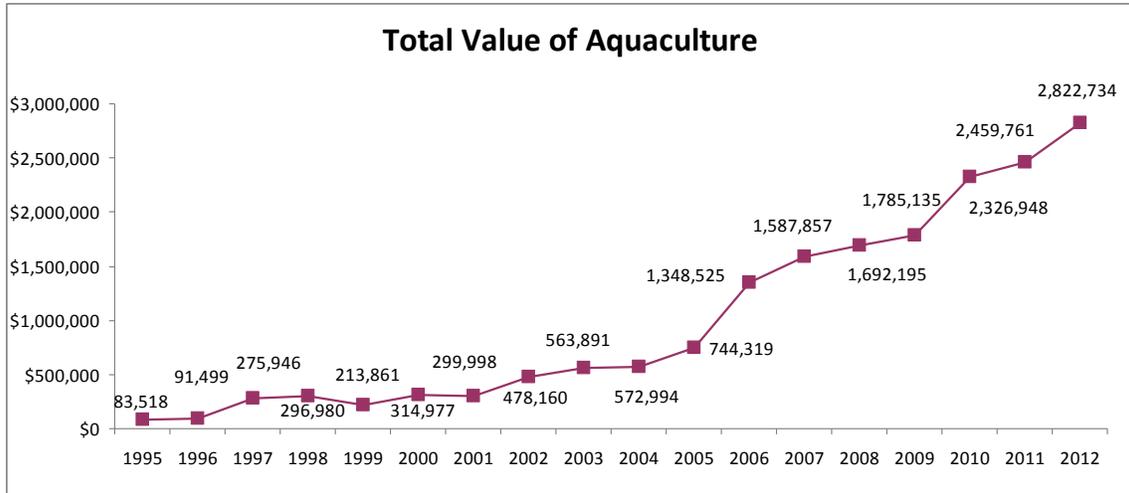


Figure 1.
Total values are for shellfish grown for consumption.

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 4,303,886 pieces sold this year. Hard clam production was a distant second with 81,425 pieces sold. The blue mussel crop grew to 11,000 pounds this year. The number of farms active in Rhode Island aquaculture at the end of 2012 was 50, with cultivation of 172.55 acres, the result of seven new farms added in 2012. Production numbers should be reflected slightly next year, increasing thereafter.

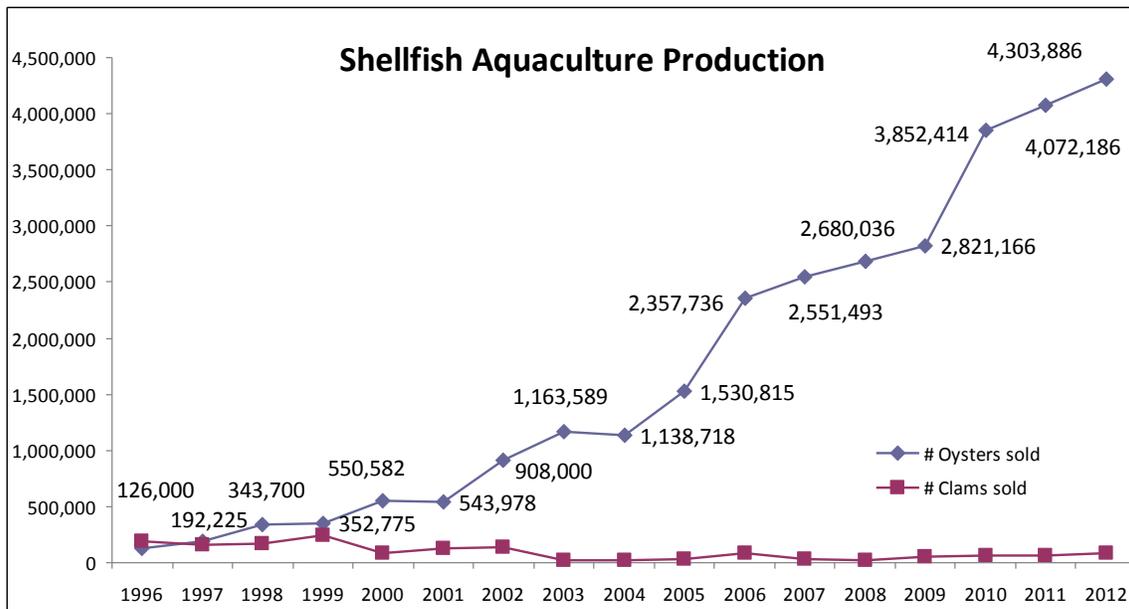


Figure 2.
The American oyster remains Rhode Island's dominant aquaculture product.

In 2012 the production per acre of aquaculture in Rhode Island was \$17,459, not including the new farms which had no production as of this report. Farm-related employment increased 25 per cent 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
2012	32	9	32	32	105

Figure 3.
Aquaculture farm related employment statistics.

How much aquaculture was there in RI through 2012?

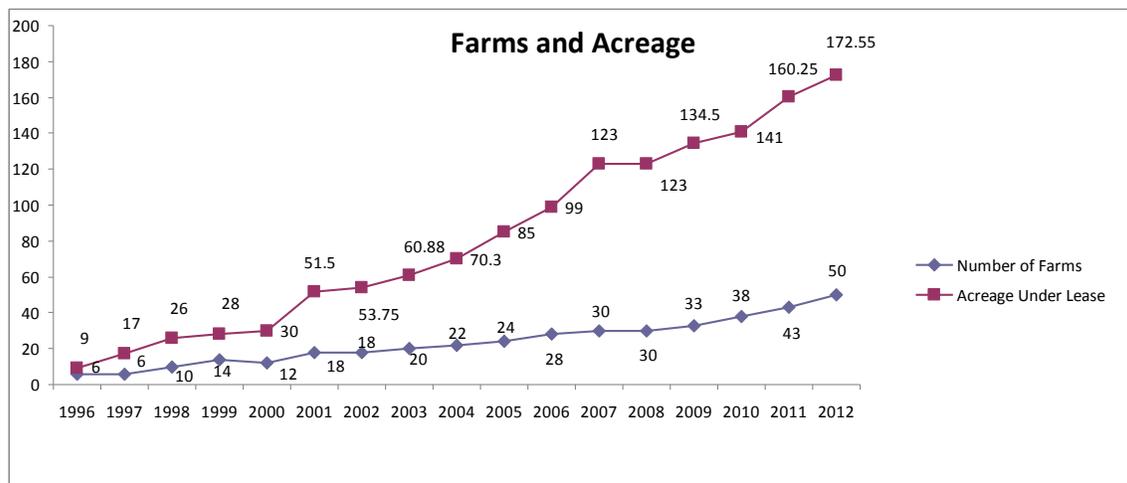


Figure 4.
Seven new leases increased the farmed acreage to 172.55 in 2012.

Farm area summary:

- 50 farms
- Total aquaculture area in all RI waters - 172.55 acres
- Narragansett Bay and Block Island- 87,723 acres/90.85 acres of aquaculture = 0.1% of total
- South Coastal Ponds (listed below) - 3963.70 acres/81.7 acres of aquaculture = 2.0% of the four ponds

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
2012	8	19.5	6.9	47.3
Total for all south coastal ponds 81.7				

Figure 5.

Aquaculture acreage for RI south coastal ponds

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

- Ninigret Pond - 1.23%
- Winnapaug Pond - 1.69%
- Potters Pond - 1.91%
- Pt. Judith Pond - 3.05%

Universities and Environmental Organizations

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 an ongoing 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, and 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 which was completed this year. The Nature Conservancy and Save The Bay are both active in restoration activities in Rhode Island. They each partner with RI Department of Environmental Management Division of Fish and Wildlife to accomplish their projects for the benefit of the public.

Outlook for 2013

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.