



## Aquaculture in Rhode Island 2020



*Oyster farmer in Ninigret Pond. Photo by: J. Opton-Himmel*

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*Kayak tour of oyster farm in Pt. Judith.*

*Photo by: Harvey Cataldo*

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## **Rhode Island Aquaculture Industry - 2020**

### *At a Glance*

- The number of farms in Rhode Island increased slightly from 81 to 84
- The total area now under cultivation increased 8.42 acres for a total of 347.50 acres
- Oysters remained the number one aquaculture product with 6,062,056 sold for consumption
- The farm gate value of aquaculture products for consumption was \$4,122,198
- Oyster seed sales from RI aquaculturists was valued at \$167,000
- Combined value of aquaculture products for consumption and seed sales was \$4,289,198 million
- USDA Natural Resource Conservation Service worked with growers to purchase and deploy approximately 725,000 oysters to restoration sites around the state.
- The number of aquaculture farm workers was 216.



**Figure 2.** Dutch Island Harbor.

*Photo by: Jules Opton-Himmel*

## **Introduction**

The year 2020 was a challenging year for the Rhode Island aquaculture industry. Restaurants serve and sell most of the nation's shellfish aquaculture products. Due to the COVID-19 pandemic and associated restaurant shut downs throughout the nation, the overall production value for aquaculture in 2020 was 32.1 percent lower than the previous year. Despite these challenges, the overall acreage in production saw a slight increase of 8.23 acres, or approximately 2.4 percent. With reduced demand from COVID shutdowns, many farmers had to find new markets for larger oysters that remained on the farm longer than anticipated. Given substantial decrease in restaurant dining, some farmers had to find new ways to get their product to customers by providing new retail, online or mail-order services. Farmers also continued to work on raising new crops such as: sugar kelp, soft shell clams, surf clams, and bay scallops. RI aquaculturists are inventive, efficient, and working to diversify their crops and markets using the latest technology.



**Figure 3.** Oyster farmers in Potters Pond

*Photo by: Christopher Basset*

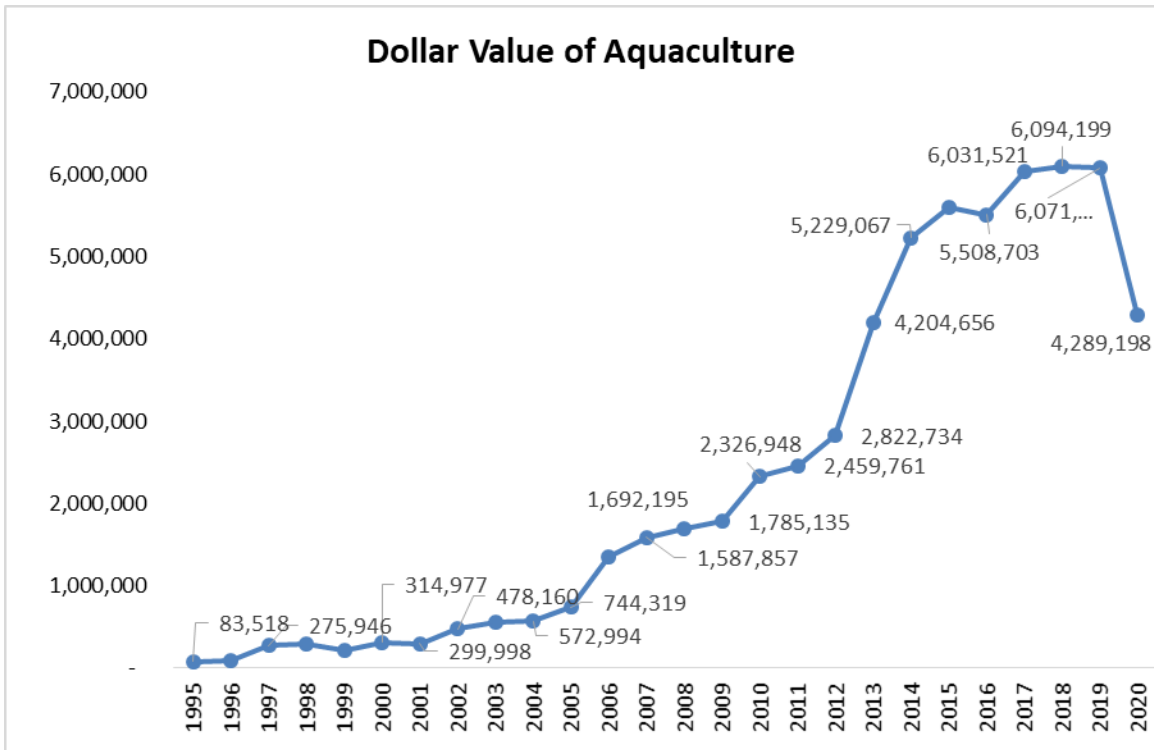
### **How the figures were derived**

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 wholesale 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. Four operations sold oyster seed in 2020. The figures cited are for gross sales of aquaculture-related products including seed sales. A number of shellfish growers are also shellfish dealers. The sales that are direct to end users are at a higher value than wholesale price used in the averaging. Using a wholesale price results in a lower value determined for the aquaculture products but also results in a consistency of format over the years of reporting.

## Farm Production

The 2020 farm gate value of Rhode Island grown products was \$4,289,198 which was a decline of 32.1 percent from the 2019 farm gate value. Oyster seed sales for 2020 also declined 48.89 percent to \$167,000 while kelp sales declined by 55.95 percent to \$7,000. The COVID-19 pandemic and associated restaurant closures in the spring of 2020 had an immediate negative effect on the industry. Without income, many growers had to scale back seed purchases and find other ways to get product to customers such as mail order or other direct to customer sales via on-line platforms.

The number of farms active in Rhode Island aquaculture at the end of 2020 was 83, with cultivation of 347.5 acres. Eastern oysters, *Crassostrea virginica*, continue to be the most valuable cultivated species in Rhode Island and represent approximately 98 percent of all Rhode Island aquaculture production.

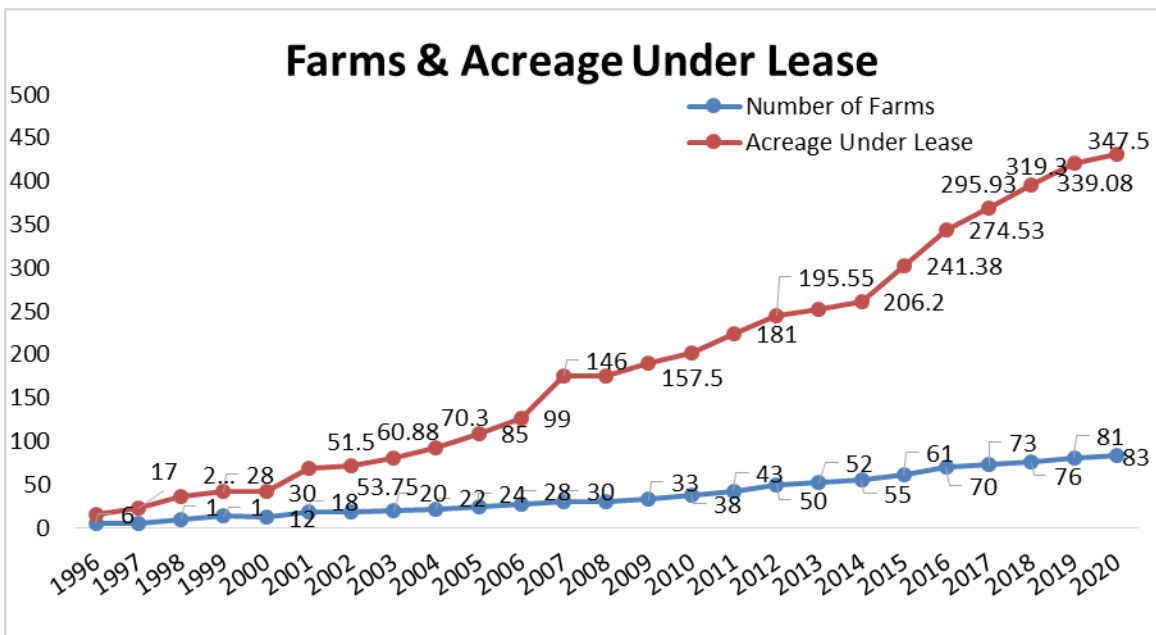


**Figure 4.** Total dollar value of aquaculture

### Aquaculture Employment

Year	Full Time Year	Full Time Season	Part Time Year	Part Time Season	Total
2006	17	8	17	15	57
2007	14	2	28	15	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
2013	35	13	37	42	127
2014	47	17	35	43	142
2015	47	26	39	59	171
2016	49	30	49	49	177
2017	62	27	41	64	194
2018	62	31	38	69	200
2019	59	47	46	67	219
2020	69	20	52	75	216

**Figure 5.** Aquaculture farm jobs decreased by 1.36 percent in 2019.



**Figure 6.** Acreage for the 83 farms is 347.50 acres total.



**Figure 7. Grill size oysters**

*Photo by: Harvey Cataldo*

## **Universities, Environmental Organizations, State and Federal Agencies**

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 pathology testing capabilities and are assets to the shellfish aquaculture and wild harvest industries. They each have projects concerning the nascent kelp industry in RI. URI has research projects growing yellowfin tuna and urchins. Extension projects at RWU include oyster restoration, the practical shellfish farming course, and a public enhancement project for quahogs and oysters partnering with the RI Shellfishermen's Association and the Town of Warren. Rhode Island Sea Grant (RISG) continues to provide aquaculture education opportunities for interested constituents. The RI Department of Environmental Management (DEM) partners with



The Nature Conservancy (TNC), the United States Department of Agriculture (USDA) Natural Resources Conservation Service, and the aquaculture industry on oyster reefs restoration projects. In 2020, USDA Natural Resource Conservation Service worked with growers to purchase and deploy approximately 725,000 oysters to restoration sites around the state. The RIDEM and the RI Department of Health (RIDOH) continue to monitor harmful algal concentrations and the program has successfully protected human health. The USDA continues to fund the shellfish sentinel program looking at shellfish disease levels in the different biosecurity zones.



**Figure 8.** USDA officials visit with oyster farmers in Ninigret Pond.

*Photo by: CRMC*

## **Outlook for 2021**

While aquaculture businesses were challenged by the COVID-19 shutdowns of 2020, the outlook for 2021 is optimistic. With the development and distribution of vaccinations in early 2021, many restaurants and retailers expect the demand for sustainable seafood such as oysters to strongly rebound with the return of indoor dining and increased at-home consumption. Despite the setbacks of 2020, Rhode Island aquaculturists are resilient and continue to work on and invest in their farms to meet this growing demand for high quality shellfish.