

New Jersey Shellfish Aquaculture Situation and Outlook Report 2016 Production Year

March 2018



Introduction

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New Jersey has a well-established hard clam (*Mercenaria mercenaria*) aquaculture industry originating in the 1970s. Extensive aquaculture of the eastern oyster, *Crassostrea virginica* involving bottom planting of shell and wild stocks dates back to the 1800s, but this practice was largely abandoned due to the onset of oyster disease in the late 1950s and presently accounts for only a small percentage of New Jersey's oyster harvests. Since 1997, oyster culture based on the planting of disease resistant hatchery-reared seed has steadily increased with farms developing in the Delaware Bay and Atlantic coastal bays. In 2012, the Haskin Shellfish Research Laboratory, Rutgers University and New Jersey Sea Grant Consortium began an annual survey program aimed at capturing the status and trends associated with shellfish aquaculture in New Jersey. The survey is modeled after a successful program conducted by the Virginia Institute of Marine Science. This report represents the fifth survey year.

Survey results indicate at least 2.03 million aquacultured oysters were produced and sold by New Jersey oyster farmers in 2016

Figure 1. Number of Oysters Sold

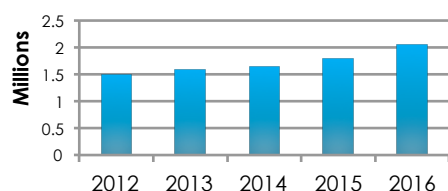


Figure 2. Oyster Farm Gate Value

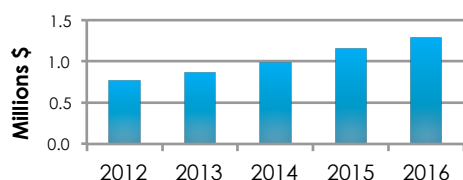


Figure 3. Average Wholesale Price

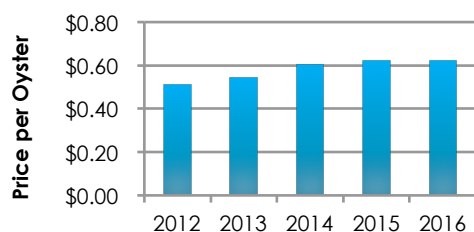
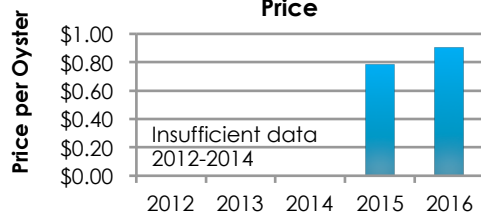


Figure 4. Average Direct Market Price



Methods

The 2016 New Jersey Shellfish Aquaculture Survey was conducted electronically. Shellfish growers were contacted in fall 2017 via email and asked to respond to the survey through SurveyMonkey®. The survey was distributed to individuals holding shellfish leases and to shellfish industry members known to the survey author. Survey participants were asked to report on operations and production occurring in 2016.

Results

Survey Participants

Twenty-seven individuals participated in the survey; however, too few hard clam growers completed the survey, so data related to the hard clam sector will not be presented. Oyster aquaculture operations spanned four counties and included both Atlantic coastal and Delaware Bay locations. One farm was in Atlantic County, 8 farms were in Ocean County, 7 farms were in Cape May County, and 4 were in Cumberland County. Three survey participants operated hatcheries, 5 operated nurseries, 22 conducted structural-based aquaculture, and 2 conducted bottom planting. Five of the participating survey respondents represented

start-up farms (<1 year in business), eight participants indicated they had been in business for 2-5 years, and 6 participants had more than six years of oyster farming experience.

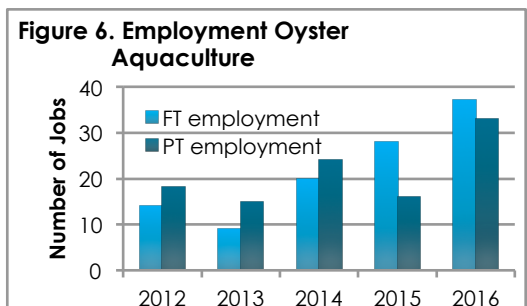
Oyster Aquaculture

Nineteen respondents provided harvest statistics for oyster aquaculture operations. In total survey participants sold 2,029,500 cultivated oysters in 2016 (Figure 1), having a total farm gate value of \$1,370,060 (Figure 2).

Eighty-one percent of the oysters sold were sold in wholesale markets and 19% were sold in direct markets. Wholesale pricing ranged from \$0.35 to \$0.70 with an average price, weighted by number sold at each price, of \$0.62 per oyster (Figure 3). Direct market pricing ranged from \$0.66 to \$1.00 per oyster, with an average price, weighted by number sold at each price of \$0.91 per oyster (Figure 4).

Projected harvests for 2017 totaled 4.5 million, which would more than double 2016 harvests. Participants planted a total of 19.3 million oyster seed in 2016.

Figure 6. Employment Oyster Aquaculture



Altogether, oyster farms employed 37 full time employees and 33 part time employees who on average worked 82 days (Figure 6).

On-bottom Planting of Oysters

Two individuals noted that they engage in bottom planting of shell and or wild oysters.

Hard Clam Aquaculture

Due to insufficient survey participation by industry members, survey results for hard clam aquaculture in 2016 will not be presented.

Hatchery

Four hatchery and or nursery operations participated in the survey. Total oyster seed production was 17.4 million having a total sales value of \$371,000. Total clam seed production was 18 million having a total sales value of \$350,000. In addition to seed, 11.5 million eyed larvae were sold with a sales value of \$7,500.

Discussion

Based on the number of Aquatic Farmers Licenses issued for oyster aquaculture in 2016, it is believed that the survey captured activities of

potentially all licensed oyster growers. Oyster aquaculture production increased 12% from 2015 to 2016 following a similar trend from 2014 to 2015. In respect to employment there was a 24% increase in part time work and a 51.5% increase in full time work. Given the increase in the number of oyster farms in the State and the amount of seed planted in 2016 there will likely be a significant increase in production over the next several years as the industry's capacity and planted stocks grow.

Acknowledgements: The survey is modeled after the Virginia Shellfish Aquaculture Crop Reporting Survey conducted by Thomas Murray and Karen Hudson, Virginia Sea Grant Extension Program, Virginia Institute of Marine Science. Photographs credited to Lisa Calvo.

This publication is the result of work sponsored by New Jersey Sea Grant with funds from the National Oceanic and Atmospheric Administration (NOAA) Office of Sea Grant, U.S. Department of Commerce, under NOAA grant #NA10OAR4170085 and the New Jersey Sea Grant Consortium. The statements, findings, conclusions, and recommendations are those of the author(s) and do not necessarily reflect the views of New Jersey Sea Grant or the U. S. Department of Commerce. NJSG-18-931.

