

Maryland Seafood Cooperative Advances Oyster Production Capacity at Ferry Cove Oyster Hatchery with Help of MARBIDCO



For many decades, oysters have been a prized Chesapeake Bay seafood product featured on restaurant menus and at seafood shops, and now increasingly oysters are available at specialty grocery stores and even at some farmers' markets.

Following important regulatory changes instituted a dozen years ago, and with some economic development support provided by

State public sector agencies (including MARBIDCO)

Maryland is seeing an upsurge in both the production and demand for oysters which has helped fuel the growth of its shellfish aquaculture industry.

And looking at it from another perspective, since oysters eat the algae found in brackish estuaries that excessively thrive on too many nutrients (such as nitrogen and phosphorus), the growing number of Maryland oyster farmers are helping to improve the Bay's water quality.

According to the University of Maryland Extension (UME), from 2012 to 2021, over 496,000 bushels of oysters have been harvested from over 7,500 acres leased through the Maryland Department of Natural Resources (DNR).

However, UME's 2020 industry report notes that the continued growth of shellfish aquaculture in Maryland faces several challenges including the availability of oyster shell, oyster larvae, environmental conditions, and the ability to secure a DNR aquaculture lease.

To help grow the industry, MARBIDCO partnered with DNR to establish the Maryland Shellfish Aquaculture Financing Fund to provide low-cost loans to oyster farming businesses like the Maryland Seafood Cooperative.

The Maryland Seafood Cooperative (MDSC) began in 2018 and is the only statewide watermen-owned cooperative in Maryland.

It produces sustainably grown shellfish from the Chesapeake Bay which it markets regionally. MDSC includes 21 members and has 97 acres of leased bottom in the Little Choptank, Edge Creek, Patuxent, and Manokin Rivers. MDSC members hail from Calvert, Charles, St. Mary's, Anne Arundel, Dorchester, Queen Anne's, and Talbot Counties.

MDSC is intent on helping its members generate supplemental revenue to offset the cyclical nature of the wild oyster fishery while meeting the demand for locally sourced seafood using sustainable and innovative methods.

In their goal to be self-sufficient, a challenge they faced was sourcing spat-on-shell (SOS) to fulfill the requirements of the Maryland Department of Natural Resources' (DNR) shellfish lease agreement and meet their own business production goals.

MDSC has a partnership with Ferry Cove Oyster Hatchery, a 501(c)(3) nonprofit organization, built in 2021 in Sherwood (Talbot County), to utilize a portion of the hatchery's onshore nursery for MDSC's remote setting tanks.

Ferry Cove Oyster Hatchery is a state-of-the-art private oyster hatchery producing oyster larvae and seed for Maryland's shellfish aquaculture industry and has the capacity to grow up to three billion larvae per year. It uses cutting edge technology to maximize efficiencies and lengthen the production season.

An example is its use of several computer control systems throughout its operation to control salinity, temperature, Ph, among others, to give it flexibility in responding to Bay's constant changes in water quality.

Having consistent water quality in the hatchery enables it to maximize its larvae and seed production. Ferry Cove is also growing its own algae in large bioreactors which provide the food supply for the hatchery's oysters.

In order to fund the needed remote setting equipment, MDSC reached out to MARBIDCO and applied for a loan through its Maryland Shellfish Aquaculture Financing Fund.

With this program, MARBIDCO makes affordable, subsidized financing available to commercial watermen and other entrepreneurs wishing to start or expand shellfish aquaculture operations.

MARBIDCO has financed 94 shellfish aquaculture projects in Maryland at over \$5.6 million since the program began in 2011.

Loans (between \$5,000 and \$100,000) may be used to purchase substrate (e.g., shell), seed (or larvae) or capital equipment, and both "on-bottom" and "water column" aquaculture production projects may qualify.

The program offers loans with a below market interest rate and possible loan forgiveness for first-time borrowers of up to 40%.

MDSC used the loan funds to purchase and install four remote setting tanks and tank heaters located at

Ferry Cove Hatchery property that will help supply oysters to the Bay-bottom leases owned by the Cooperative.

MDSC purchases oyster larvae from local hatcheries and has acquired some oyster shell needed to produce spat-on-shell in its remote setting tanks. The remote setting production has been in operation for a year and the has produced and shipped spat on shell to its leases in the Little Choptank River, and the Patuxent River

"It has been huge for us," said Kelly Barnes, MDSC's business manager. "The funding gives us the ability to do more and become self-sufficient."

The fiberglass remote setting tanks are key to the Cooperative's growth. The MDSC's four tanks should produce up to five million baby oysters.

“We want to get more oysters on the bottom,” she added.

In addition to the economic benefit of oysters, they are regarded as Chesapeake Bay’s most important filter feeder (of algae) and are thus considered to be a “keystone species”.

After each set, the tanks are washed out and aged oyster shells are cleaned in the shell washer and put into round bags.

Locally constructed screened bags holding the clean shells are hooked to a crane and loaded into the tanks for the next set.

MDSC is currently awaiting its first crop of planted oysters to be ready for harvest, which will take three to four years to mature before being sold to wholesalers, restaurants, or other retailers.

“We wouldn’t have been able to do this without MARBIDCO,” said Barnes.

And, of course, with the support of the Ferry Cove Hatchery too helping to bring additional vitality to the oyster farming industry in Maryland.