

# Calvert County Watermen's Association Oyster Aquaculture Market Study

By Ocean Equities LLC

*A Project Sponsored By:  
Maryland Technology Development Corporation (TEDCO) Rural Business Innovation  
Initiative (RBI2)  
and  
Southern Maryland Agricultural Development Commission (SMADC)*

## EXECUTIVE SUMMARY

Traditionally, Maryland watermen have earned a significant portion of their income by harvesting oysters in late fall and winter. Declining oyster populations have forced some watermen into other work. As part of a larger effort to restore Chesapeake oysters and to help traditional watermen communities, Calvert County Watermen's Association (CCWA) members have been receiving technical support to farm oysters in the Patuxent River, a tributary of the Chesapeake.

CCWA members harvested their first farmed oysters in December 2010. Now that watermen are farming oysters, it is critical to identify appropriate markets. Our marketing report evaluates how and to what extent interested Calvert County growers can successfully raise and market oysters — the costs (dollars, labor, time), the potential income, and the market possibilities.

The market differs depending on which of the two primary oyster-farming methods a waterman selects. In **bottom culture**, growers place hatchery-produced spat-on-shell oysters on the bottom. Though requiring less labor and expense, it produces a product primarily for shucking, which brings lower prices than single oysters produced for the half-shell market. By contrast, intensive cage (or container) culture involves more effort but results in a product that commands higher prices — an oyster for the high-quality half-shell market.

We explored local and regional demand for both shucked oysters and higher-quality live oysters for the half-shell market through extensive discussions with wholesalers, retailers, restaurants, farmers markets, processors, government agencies, other growers and our own experiences growing and marketing oysters.

Such projections can be central to a grower's business plan, often a necessary element for obtaining permits, loans and grants and help watermen determine which form of oyster culture to pursue.

We developed simple **financial projections** (also known as pro formas) showing revenues based on assumptions such as number of oysters grown, likely production

costs of each growing method, different selling prices, oyster mortality rates and other factors. Any assumption and input variable in this model can easily be changed or tailored to an individual operation. The projections show how changes in assumptions may affect the bottom line, a process called sensitivity analysis. We found that:

- Cage-culture operations require greater upfront equipment and working capital investment than bottom culture operations, but they provide a greater return, and larger operations are more profitable than smaller operations. Cage-culture operations are generally profitable selling 250,000 or more oysters a year.
- Bottom-culture operations should be large enough (sales of 1 million oysters per year) to minimize risk and achieve adequate returns. Their viability is improved by investing the additional effort and time to sort, clean and pack a portion of the harvested oysters for the half-shell singles market.
- If the market supports only the low selling prices assumed for either operation, neither kind of operation is financially viable unless it is large, survival rate is high, and bottom-culture operations sell a portion of their oysters to the half-shell market.

With respect to **bottom-cultured Patuxent River oysters**, regional processors prefer sterile (triploid) oysters that have a higher meat to shell ratio. To maximize income, we recommend that bottom-culture farmers break some clumps into single oysters, selling the less visually appealing for shucking, and the best ones to the more lucrative half-shell market.

**Cage-cultured oysters both command a higher price and offer more marketing options.** Watermen may sell directly to restaurants, to retailers, to roadside stands and to the public at farmers' markets in Calvert County or the DC area, and at festivals and other events featuring local products. Each option has its advantages and disadvantages in terms of time involved and expenses of marketing.

Oyster growers have three primary marketing choices: (1) selling directly to restaurants, (2) selling to wholesalers and (3) selling directly to retail stores. A consistent supply of clean oysters of regular sizes is important for any of these options.

**Restaurants** in this region sell over 10 million raw oysters a year, and this number is steadily increasing. Growers could receive up to 20% more per oyster by selling directly to these restaurants, rather than using wholesalers, but they would need the time and facilities to deliver the oysters directly to markets that may be an hour or more away. Where direct sales are not feasible, growers would sell to **wholesalers**. All major seafood wholesalers in this area handle oysters. Some carry as many as 50 to 60 different oyster varieties.

The market for **retail** sales is growing. One major gourmet supermarket chain increased whole oyster sales by about 25% over the past seven years. Another chain's oyster sales increased 50% per year over the same time. But there is a particular challenge to entering this market as a new producer because even gourmet retailers, unlike wholesalers, don't sell more than six or eight varieties.

Marketing may be time-intensive at the outset. However good the product, however reasonable the price, however good the story and despite the demand for local products, growers may have difficulty getting some buyers to return calls or emails, much less show interest in a new product. Some restaurants and retailers prefer to stay with what they know. Because wholesalers market oysters as well as distribute them they may view a new Chesapeake oyster as more work. Local growers will need to convince buyers that their oysters are not just generic Chesapeakes, which still have a reputation as better for shucking or cooking in the shell than for eating raw on the half shell.

**Branding, creative marketing and sheer persistence** will help. The story of the Patuxent shellfish industry's history and current culture operations can be a great marketing tool.

Proper **transportation** is vital. Calvert County growers will need to decide whether to drive their products to buyers or use a trucking service. Currently no commercial refrigerated trucking companies serve Calvert County.

**Bottom line:** Cultured oysters can generate additional revenues to stabilize the local industry, introduce potential shellfish farmers to alternative methods and markets and keep current watermen on the water. Adequate markets exist to absorb increasing production but unless the product's form, quality and price fit the demand, the profit margin may be too slim to interest watermen in farming. Good farming practices and marketing can be the basis for economic success and eventual self-sufficiency for participating farmers.