

Shellfish Aquaculture COVID-19 Rapid Response: Challenges and Opportunities

Sea Grant programs throughout the North Atlantic region have pursued a number of strategies to help shellfish growers overcome the challenges that COVID-19 has brought to the shellfish aquaculture industry. The impacts have been felt both by the growers of market-sized shellfish as well as the hatcheries they rely on for seed stock. Sea Grant's rapid response programs can generally be divided into three categories: **alternative market development**, **restoration buyouts programs**, and assistance with **accessing direct cash relief**. While restoration programs were largely directed to oysters in most states, other types of shellfish (i.e. mussels, clams) were included in alternative market development and cash relief programs as well as in a select few restoration projects.

Alternative market development strategies help growers replace revenues lost from the wholesale and restaurant markets that were their primary source of income. This required growers to quickly establish venues to sell directly to consumers. Sea Grant programs took several actions to enable these new markets, including:

- publishing direct marketing and regulatory guides,
- building websites listing direct sales outlets,
- creating community supported fisheries (CSFs),
- conducting marketing campaigns,
- conducting consumer studies,
- donating purchased product to food banks,
- hosting business pitch contests with cash prizes,
- offering consulting services for e-commerce and small business coaching, and
- working to develop local processing capacity to help support the growth of a value-added shellfish product market.



In order to realize the benefits of direct marketing, growers must obtain the correct state dealer permits and navigate other licensing and regulatory hurdles—and Sea Grant programs offered advice to ease their way through the complex process. In states where most or all growers already had dealer permits, growers reported an easier time with accessing direct marketing opportunities. New growers face additional challenges in direct marketing and market development because they typically lack the strong relationships with buyers that more established growers enjoy. Many growers also face challenges in establishing e-commerce businesses due to the high costs of shipping live shellfish as opposed to selling locally.

Restoration buyouts purchase oversize or otherwise unsold oysters to restock existing restoration sites. Some Sea Grant programs (e.g. New Jersey, New Hampshire) and municipalities (such as on Cape Cod) started their own restoration projects in order to help growers replace lost revenues. Connecticut Sea Grant took a slightly different approach by paying growers to work on the state's plentiful natural shellfish beds and purchasing their oversize oysters to serve as broodstock on those natural beds. Restoration buyout projects are constrained in scope by the availability of funding as well as by the number of suitable active restoration sites, which are preferred in a rapid response context because they allow product to be moved quickly; this means that the prospect of starting up new restoration sites for COVID rapid response is mostly out of the question. Biosecurity is a primary concern when purchasing oysters to move from one site to another: oysters must be matched with sites extremely carefully to avoid the transmission of diseases and pests. This means that the number of oysters that can be bought for restoration, and their

provenance, is quite limited at present. Many states also have regulatory hurdles preventing the movement of oysters for restoration or completely prohibiting the creation of restoration-only reefs.

The largest restoration project in the North Atlantic region is the [Supporting Oyster Aquaculture and Restoration \(SOAR\) initiative](#) run by The Nature Conservancy (TNC) and Pew Charitable Trusts. Because of the same biosecurity and logistical concerns, the SOAR initiative is working with only permitted, active restoration sites which already have monitoring plans in place. SOAR program officers first identified active restoration sites throughout the region and then worked with growers associations to find growers to purchase oysters which could then be moved to the restoration sites.

Across the board, use of **federal relief funds** have remained high with Sea Grant programs playing a major role in guiding growers through applications for the most suitable programs. Eligible growers applied in large numbers for Paycheck Protection Program (PPP) and Economic Injury Disaster Loan (EIDL) assistance as well as to the NOAA CARES Act Assistance to Fishery Participants (CAAFP) and the second round of USDA Coronavirus Food Assistance Program (CFAP 2) . Even in states where summer sales recovered, relief funds were needed to replace lost revenues from the spring when business was slow. Many newer growers are at a serious disadvantage in accessing federal relief funds because they lack the multi-year sales history required to demonstrate need. This problem was magnified in Delaware where the shellfish aquaculture industry is primarily made up of newer growers.



Hatcheries have struggled as demand for seed has contracted over the pandemic. The degree of contraction has depended on geography, gear type and years of experience among other factors. The uncertainty of the business outlook over the next year or so has left many growers unwilling to take on additional debts by arranging to purchase more seed. Also, due to lower-than-usual sales this year, many growers simply do not have the space for more shellstock and as such cannot buy more seed; this is generally more of an issue for off-bottom growers who are more space-constrained than for bottom-culture growers. Many growers have reduced their orders, leaving some hatcheries with more inventory than usual. This has resulted in some hatcheries giving away seed or reducing prices in order to move inventory. Hatcheries may have issues with cash flow next year due to slower business this year. However, growers who want to buy seed and have the cash available to do so have generally been able to buy it.

In New England, growers have generally not reported access to seed as a major problem during the COVID-19 pandemic as most hatcheries have remained open; this has meant that in most cases supply of seed has remained consistent. However, some growers have reportedly reduced or dropped their seed orders entirely and some struggled to pay for the seed orders that were placed. In the Mid-Atlantic region, many growers struggled when the Rutgers hatchery went offline and growers particularly in New Jersey and Delaware were forced to look elsewhere for seed. This meant that seed supply has generally been a bigger problem in the Mid-Atlantic than in New England.