

Surf Clam Nursery and Culture Trials: New Species Development for New Jersey Shellfish Farms

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Bivalve shellfish production represents a large and growing segment of the United States and global seafood industry accounting for nearly 20% of domestic and 27% of worldwide aquaculture production. Today, the shellfish aquaculture industry in New Jersey is small relative to other coastal states and production has been limited to two species, the hard clam and the eastern oyster. However, recent policy changes in New Jersey and expanding local seafood markets will open the door to growth of the aquaculture sector. While the industry is poised to expand, both in the scale of production and the species being cultivated, the tools for crop diversification are not yet being developed. As shellfish farming efforts expand in New Jersey, it will be critical for farmers to have options for crop and product diversification that will allow for resilient and robust business models.

The Atlantic surf clam, *Spisula solidissima*, is a large-bodied, fast-growing clam species found along the continental shelf off New Jersey. Historically, the surf clam has supported a successful and important fishery, however, a dramatic drop in landings from state waters was observed in the 1990s and today the industry faces continued shifts of federal stocks due to a changing climate and continued fishing. The clam's biology represents a significant potential for success as a farmed species in New Jersey and on



Lisa Calvo holds a bag of surfclams.



Surfclams ready to be measured.

farms throughout the Northeast. The species is easily spawned in captivity and has rapid early growth rates. The goal of the project is to identify optimal aquaculture conditions for culturing the Atlantic surf clam on New Jersey farms. The researchers will work closely with shellfish farmers to perform these trials on active farms in New Jersey.

A healthy shellfish aquaculture industry in New Jersey is important to local economies, food production, and ecosystems. As farms expand and new farmers enter the industry, it will be important for farmers to find ways to diversify their business models in terms of species produced to create more robust and resilient businesses. Development of new species for culture in New Jersey will benefit hatchery managers and shellfish producers by allowing them to use co-culture techniques, and to farm seasons that might otherwise be fallow. This project will provide the tools farmers will need to add a fast growing clam species to their farm portfolios.