

Disease-resistant oysters from hatchery could be the future of industry Environmental experts see potential for large-scale farms at the Shore

BY KIRK MOORE

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LOWER TOWNSHIP On a windblown Delaware Bay tidal flat, a few acres of muddy sand are demarcated with poles and steel racks, holding up one of New Jersey's newer seafood offerings: Cape May Salts.

The marketing name harkens back to the golden age of American oyster culture, when the bivalves were fast food loved by rich and poor, and oystermen proudly named their catches the way vintners label wines.

When Gregory A. DeBrosse looks up and down the beach beyond the modest oyster farm, he sees what could be a future for the industry, whose wild shellfish stocks remain debilitated by oyster disease.

"These are disease-resistant oysters coming out of this hatchery. So they're releasing their progeny and actually helping the stock in this part of the bay," says DeBrosse, who manages the Rutgers University Cape Shore Laboratory. "You can go from here to the Villas before the first house. It's a huge area. It would take decades for an aquaculture industry to fill that up.

"Not to do it seems like a terrible waste of a resource, especially considering the condition of the wild fishery."

Changes to laws needed

Progress toward expanding New Jersey's aquaculture industry has been excruciatingly slow, according to a new state coastal management program report. While the state Department of Agriculture has been setting standards and licensing fish farmers since July 2004, changes are still needed to the state statute Title 50 before growers can lease bay bottom in four aquaculture development zones off the Cape May and Cumberland County shore.

Totalling 1,285 acres, the zones would be set aside for the "rack and bag" oyster growing systems now employed by Rutgers researchers and three private growers at Cape Shore. The largest operation there, owned by Atlantic Capes Fisheries Inc. of Cape May, has been supplying oysters to restaurants there and has made some footholds in the Philadelphia and New York markets as well, DeBrosse says.

The cultured-oyster entrepreneurs can take advantage of the modern taste for a smaller half-shell oyster, DeBrosse says. After purchasing 1,000 hatchery seed oysters for \$9 or \$10, growers rear them in bay waters for 20 to 30 months, at a survival rate of 60 to 65 percent. They've been getting 35 to 37 cents each for mature oysters, he says.

"It's labor intensive. This is farming," DeBrosse says. "You're not going to get rich doing it. But we've reached a point with the disease-resistant oyster where it's commercially viable. You can make a living at it."

Hatchery-reared seed clams are grown with success by clambers in southern Ocean County, where leased grounds in Great Bay and other secluded locations allow baymen to raise their own clams instead of relying on thinned-out wild clam beds.

But the clam farmers' onsite equipment is usually limited to nets stretched flat across a pile of clams, to keep out crabs and other predators. Experts say there's potential here for large-scale farms, like those in Europe and Asia, but in a crowded state like New Jersey, the 154 licensed shellfish growers don't have many places to work.

Avoiding conflicts

For at least eight years aquaculture advocates and DEP officials have talked about revamping state policies on fish farming. Growers and their supporters from the state Department of Agriculture and Rutgers University talked about the potential economic benefit from promoting growth in the aquaculture sector.

DEP water quality and wildlife experts had their own concerns, such as fish waste and tagging farm produce so it can be told apart from wild-caught fish in markets.

From the DEP's perspective, one big problem is that aquaculture gear in tidal waters can provoke conflicts between growers and recreational boaters and fishermen. That issue has hung over the process for years, according to people familiar with the discussions.

"If it's handled correctly, you don't need to have those conflicts. It just needs to be planned well," said Linda O'Dierno, coordinator of fish and seafood marketing at the Department of Agriculture.

Now the DEP is moving toward acting on one industry recommendation, with the aquaculture development zones. As noted in the state coastal report, the emphasis now is to create those zones along the Delaware Bay shore a still-rural region far away from the heavy summer boat traffic of Atlantic coastal bays.

"We're kind of excited and hope they move forward," O'Dierno said.

Process stalled

However, the report notes that process is stalled at the moment until the Legislature addresses another issue in Title 50 the so-called "clam line" in Delaware Bay, a boundary that separates approved oyster culture areas from open public shellfishing grounds. Lawmakers need to approve new language to allow oyster growers to work farther out in the bay, the report says.

Another item on fish farmers' wish list is a "general permit" to simplify the application process to OK other new operations.

"We're trying to get them to come up with a general permit for aquaculture outside of those zones," O'Dierno said. One example would be for siting oyster growing locations in brackish waters farther up tidal creeks, "where there's no navigation hazards" because boats don't go there, she said.

The coastal report notes a general permit would also help clam and oyster restoration projects in Monmouth and Ocean counties. The NY/NJ Baykeeper program and its volunteers have been planting oysters in the Navesink River and Raritan Bay, while a new program started last year to restock parts of Barnegat Bay using seed clams.

Groups welcome action

The report's lengthy aquaculture discussion shows the DEP has done a lot since the 2001 assessment, said Cynthia A. Zipf, executive director of Clean Ocean Action, a Sandy Hook-based coalition.

The agency seems to be finally using the state Aquaculture Development Act of 1997, said Nicole Simmons, Clean Ocean Action's water policy analyst. Based on an aquaculture development plan drafted in 1995, the law was passed two years later at the urging of fish farming advocates.

Now, "they are putting that to use and developing . . . aquaculture development zones," Simmons said. "It does seem like they are taking some action as far as aquaculture goes and creating that sort of thing."

But finfish aquaculture isn't discussed at length, among other omissions; the DEP's assessment talks mostly about shellfish in the draft assessment, Simmons said.

Commercial salmon farming in Maine and other cool-water regions has raised issues of fish diseases and pollution from fish waste concentrated in close spaces. The New Jersey report doesn't address potential pollution problems from future finfish culture here, Simmons said.

Other kinds of finfish, like hybrid striped bass, might be a profitable line for New Jersey growers. Later this year, Rutgers scientists will open a new "multispecies aquaculture demonstration facility" in North Cape May, to show the feasibility of raising a few proven fish and shellfish brood lines in large numbers.