

A-FISH-IONADOS

MUSSEL MEN

BY ANN WYCOFF

Quietly tucked in Carlsbad's Agua Hedionda Lagoon is a life-ridden aqua farm, where mollusks flourish in the ebb and flow of the Pacific tides. White floats dot the manmade lagoon, marking the homes of Gallo mussels along with Blonde and Luna oysters.

For over 30 years, aquaculture has existed in Carlsbad with fish hatcheries and abalone research occurring in the area. In 1990, John Davis, a retired pilot, and his son, Andy, a fireman, purchased the existing aqua farm in the Agua Hedionda Lagoon as a new business venture. Native Californians, active water enthusiasts and fishermen, the Davises wanted to find a way to give back to the aquatic playground they have cherished over the years.

"My father, who had always taken from the sea while fishing, was looking for a way to help replenish. It became his mantra," explains Andy. "I felt the same as I am an avid diver and surfer." Together, the father and son have devoted their energy to making the aqua farm flourish. Andy explains, "This business keeps us incredibly busy—it's physical and constant, as we are always growing things here that need to be tended and watched closely."

The Davises produce mussels, oysters and abalone, along with sea horses and two kinds of edible seaweed year round. Over 10 acres, thousands of creatures are bred and grown in a closed-circuit system. "We take a sustainable approach and grow everything on site from larva to microalgae, which feeds the shellfish until they are ready for the market," says Andy.

The unique healthy tidal flow from the ocean to the lagoon draws nutrients and food for the mollusks. Ideal temperate conditions cause an accelerated growth rate. According to Andy, "Our shellfish mature to market size in six to nine months versus the one-and-a-half to two years that naturally grown mollusks can take." The farm produces over 500,000 pounds of shellfish per year—with 9,000 pounds growing on each line in the lagoon.

A fair portion of their business concentrates on half-shell oysters. The oyster "seed" hang in trays in the water for six months. Once a month, they are pulled out and agitated in a tumbler, which stimulates the creatures to make thicker, heartier shells since they do not experience natural stimulus in the tray.

Mussels grow in mesh netting made of biodegradable cotton, which keeps them in clusters and allows them to cling to it while they grow. Eventually, the cotton disappears and the mussels, now growing outside of the mesh, can be shaken off when they mature. They are sent into a high-pressure washer that cleans and de-beards the little black gems. The smaller or submarket ones fall into a bin and are sent back out to the lagoon for further growth.

At maturity, both the oysters and mussels are fastidiously cleaned,



followed by depuration—a UV sterilization that kills off any bacteria. Another filter removes sand grit and then the water surrounding the shellfish is injected with 100 percent oxygen. Next, they rest in a bath so the animals can relax and recover from the shock of the harvest. After 48 hours, they are ready to be sent off, but first the Davises collect a tissue sample that's sent to the lab, so the batch will be certified that it is free of bacteria and safe for consumption. After receiving a batch number, it's off they go to farmers' markets and restaurants in Southern California and across the country.

"Our biggest customers are in Chicago and Southern California," says Andy. "We also sell a lot at the Santa Monica and Hollywood farmers' markets."

The aqua farm also produces the red seaweed called ogo, found in poke dishes or used ornamentally in aquariums. This seaweed also feeds the farm's abalone.

"There is a true crisis today as abalone has been so overfished. They used to cover the coastlines. Today it can take five divers all day to find five or six abalones. The creatures have become unsuccessful at repopulation naturally since they reproduce by broadcast spawning, where they send out their sperm in hopes it will connect with another abalone. But with so few left and the fact that they are so spread out, they are not repopulating. We hope to help the abalone situa-

Photographs: Lauren Duffy

tion by growing them in our habitat and moving them into the ocean. But a green abalone grows a mere an inch per year, so you can understand the challenge at hand,” states Andy. Holding a tiny abalone in his palm, he adds, empathetically, “This is the most important shellfish that we are growing here at the farm.”

The Davises also grow brine shrimp to feed their liters of sea horses. Hundreds of sea horses in different stages of maturity fill tanks at the aqua farm. The Davises decided to focus on sea horses for further diversification and sustainability.

“We realized that sea horses are another endangered species that we could grow successfully.” Each year, they produce about 500 of these noble shy little creatures, *Hippocampus erectus*, who float with their tails entwined and change color to adapt to their surroundings and hide from predators. Once mature, the mesmerizing mythological animals are sold at pet stores for private aquariums.

Andy Davis’ favorite part of his job?

“I like the ever-changing business environment and that we are outside working directly with the ocean.”

Ann Wycoff, a food and travel writer, is the co-author of chef Govind Armstrong’s cookbook Small Bites, Big Nights, and the former editor in chief of Eating Magazine. She lives in Solana Beach with her husband and six-year-old daughter.



WHERE TO FIND THEM

If you are interested in experiencing some of the aqua farm’s treasures from the lagoon, their products can be found in many restaurants throughout San Diego including Whisknadle, Jack’s La Jolla, El Pescadore, Crab Catcher, Pelly’s Fish Market, Mille Fleur, Le Papagayo, McCormick & Schmick’s, Searocket Bistro, Ritual Tavern and Kitchen 1540.

Chef Paul McCabe of Kitchen 1540 is a huge fan of their products, especially the mussels. “They’re fantastic—really, really clean because of the incredible purging and sterilization process that the aqua farm uses. The mussels are plump and hold a lot of water so they produce a good liqueur, not to mention they are so sweet.”

He adds, “It’s also the only place I can get ogo seaweed, which I like to mix into an abalone tartar, which I also get from them. It’s a great pairing.”

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