



Kelp Wanted

An underwater garden in Long Island Sound is making waves in the sustainable seafood industry. To find out how, we visited **ocean farmer Bren Smith**.

What attracted you to the sea?

I grew up in an 11-house fishing village in Newfoundland. My dad had a lobster boat. We were real back-to-the-landers and would shoot moose from the kitchen window. It was hardcore living. I quit school when I was 14 to start fishing full-time.

Why did you go from fishing to ocean farming?

While I was working in commercial fishing, the cod stocks in my hometown crashed. Everyone was thrown out of work. Today, there are hundreds of thousands of fishermen out of work; there's 80 percent unemployment. There are fewer tuna in the sea due to overfishing, and we go farther to catch fewer. We use helicopters, and we catch the worst fish out there. It's as effective as chasing down cows with Mack trucks. Eating sea veggies reduces pressure on fish stocks. We have to reimagine our ocean economy in order to survive. Let's do some ocean vegetarianism. Let's eat what fish eat.

What exactly is an ocean farm?

I have the first 3-D underwater farm (Thimble Island Oyster Co.) using the whole water column. It functions as an artificial reef. I have oysters and clams in cages on the bottom and scallops, mussels, and seaweed hanging on lines [to the surface]. Kelp is the second-fastest-growing plant in the world, and it grows to be 12 feet long. It has insane productivity with a small footprint. I call growing shellfish and seaweed a farm because a garden sounds like something a hedge fund investor has as a hobby.



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But what's the market for kelp?

There's zero market for kelp; I have to help create it. It's a good thing for chefs. How often do you find an exotic, highly unexplored species right in your backyard? They get to play with something new and make kelp fettuccine, kelp butter, kelp ice cream, kelp cocktails. We can also use kelp for fish food, animal feed, and organic fertilizer. Kelp is fed to Olympic horses.

Could other people do what you've done?

All you need is 22 feet of water, deep or shallow. There's really low overhead, and you can easily scale up if you do some local

ecosystem analysis. You could do this farming in the middle of the ocean. But the permit process took two years and cost \$3,000. The instructions are 48 pages long.

What are your biggest challenges?

My hands are like sandpaper after so many years of fishing. I can't touch my girlfriend! I lost 80 percent of my crop during Hurricane Sandy. But the best thing in my life is utter failure. Hurricane Irene wiped out my farm. I realized if this extreme weather is the new normal, I've got to adapt in a way that's restorative. So now I'm in the business of ecological redemption.

PHOTOGRAPHY BY ANDREW HETHERINGTON. ISTOCK (FORK)

\$7.1 BILLION

► Size of the total global seaweed industry. Only a few companies are based in the U.S.; most are Asian.



24 TONS

► Amount of kelp Smith can grow in his 300-by-300-foot area in just five months.

55k SHELLFISH

► Quantity of oysters, etc. Smith has sold this year to restaurants like New York City's ACME.