





WHOI, WWF team up on seaweed farming research

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With support from the Bezos Earth Fund, breeding study seeks to develop new strains

A leading U.S. ocean science research institution and a prominent international environmental NGO are teaming up to examine sugar kelp farming and how new strains could help the growing seaweed farming industry.

Over the next two and a half years, the Massachusetts-based Woods Hole Oceanographic Institution (WHOI) will conduct two breeding and harvesting seasons, starting this year, on commercial partners' farms in the Northeast United States. By identifying different strains, they will match specific traits to meet targeted needs, such as taste and texture.

Partners will take part in breeding and nursery practices with the goal of amplifying and testing new kelp varieties jointly developed by WHOI and the University of Connecticut with funding from the U.S. Department of Energy. This research will be funded in part by World Wildlife Fund (WWF) and the Bezos Earth Fund.

"Much of this newfound interest is fueled by seaweeds' climate-friendly qualities and the restorative properties associated with seaweed farms; absorbing excess carbon and nitrogen, buffering coastal pH, providing habitat and sheltering coastlines," said Scott Lindell, a research specialist in aquaculture



The Woods Hole Oceanographic Institution and the World Wildlife Fund will test sugar kelp strains and measure the yield and quality of new strains. Photo courtesy of WHOI.

technology at WHOI.



Lean and green, what's not to love about seaweed?

Grown for hundreds of years, seaweed (sugar kelp, specifically) is the fruit of a nascent U.S. aquaculture industry supplying chefs, home cooks and inspiring fresh and frozen food products.

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The study aims to examine genetic and environmental influences on kelp strains, compare traits of the strains (color, taste, shelf life) to meet the industry and consumer needs, and train hatchery operators on how to grow kelp seeds year-round.

Seaweed farming does not rely on fertile land, energy-intensive fertilizers or freshwater and, according to Lindell, it is easy to grow, beneficial for ocean ecosystems and an efficient, low-carbon way to produce nutritious food for both humans and animals. According to WHOI, seaweed represents 27 percent of annual global aquaculture production, in terms of tonnage.

"Seaweed farming produces highly nutritious foods with very few inputs relative to terrestrial farming, and it improves the quality of water in which the farms operate," says WWF's Paul Dobbins, senior director of impact investing and ecosystems services and seaweed lead. "The results of WHOI's research will help farms advance their productivity, leading to greater environmental and societal gains. We are encouraged by the direction of this research and look forward to seeing progress over the next two growing seasons."

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