

Edible grains from the sea



Eelgrass at low tide.
[Photo: David Ayers, USGS.]

An innovative chef thinks edible grains in the sea could be good for both humans and our planet. SHEERE NG reports.

Chef Angel Leon does not go to the market to buy seafood for his Michelin-starred restaurant in Spain. Instead, he makes cheese from sea snails and butter from planktons, both of which he harvests from the sea. Mr Leon does not like to serve seafood that people already know. He is famous for using ingredients that his customers have never tasted before. His latest discovery, however, may be more than a **novelty**.

The tiny, dark-coloured grains that he found at the base of an eelgrass — a plant that grows in shallow seawater — could be a way to feed humans without depleting precious resources.

Mr Leon read up on the plant and found that the grains had actually been the diet of an indigenous people in Mexico. He then sent the grains for a lab test. It showed that they were good for the heart and more nutritious than rice.

This was very good news because eelgrass does not need land and freshwater to grow — the two scarce resources required for most farming.

Good for Earth

Growing food plants and farming animals use up lots of freshwater. The demand for freshwater keeps growing. Yet, only one percent of all water on Earth is freshwater. Eelgrass, on the other hand, grows in seawater and our planet has plenty of that.

This also means that eelgrass does not take up land. It can grow in coastal waters around the world. This frees up precious land for other uses. More importantly, growing a lot of eelgrass for food will not harm Earth.

In contrast, farming to produce more and more food has affected the natural balance of biodiversity. To produce more fruits and vegetables, many farmers use pesticides and fertilisers that end up polluting rivers and ruining the soil. We catch fishes before they can reproduce themselves, causing many species to face extinction. Raising more cattle for beef adds to global warming because each cow burps and farts up to 120kg of greenhouse gas a year!

Growing eelgrass would cause none of these problems. It may even help to reverse them. Seagrass meadows are known to convert carbon dioxide into oxygen faster than rainforests do. This means that if eelgrass is grown for food, it will slow global warming at the same time.

Eelgrass is also home to small fishes such as the seahorse. Eelgrass growing close together help to slow down the movement of water and that provides a safe shelter for these little creatures. It is also food for animals like dugongs and green turtles.

Scientists knew about these benefits long ago, but few knew that eelgrass contains edible grains. Mr Leon's discovery has helped to create more interest in this plant and its importance to the environment.

Future of food

Mr Leon is not stopping there. He has been creating tasty recipes using eelgrass seeds. He found that the grains taste like brown rice and is a little bit salty at the end. They also absorb flavours well, so he cooked them in a soup stock to soak up its rich taste. The result is something like the Spanish **paella**. He has even ground them into flour to make bread and pasta.



Chef Angel Leon.
[Photo: panthalassa vimeo.]

Besides trying to convince the world to eat eelgrass as a grain, the chef is also finding a way to cultivate it. He has successfully grown it in small amounts and is now working to increase that number many times more.

Only when we grow eelgrass in large-enough quantities will it feed enough people to have a positive effect on the climate. The quantity of eelgrass around the world today is not yet enough to achieve this.

Mr Leon is **persistent** because he believes that we should eat food that is not only nutritious and tasty but also maintains the planet's ecosystems. "We've opened a window," he told The Guardian. "I believe it's a new way to feed ourselves."

VOCAB BUILDER

novelty (say "no-vel-tee"; noun) = something new and unusual.

paella (say "pah-yeh-yah"; noun) = a Spanish rice dish cooked with meat, seafood, and vegetables.

persistent (say "per-sis-tent"; adjective) = determined.