

Post-apocalyptic farming? How seaweed could help us avert starvation during a nuclear winter

A nuclear war would plunge our planet into a deep nuclear winter. In the worst-case scenario, a nuclear exchange... could eject up to 165 million tons (150 million metric tons) of soot into [Earth's](#) atmosphere, reducing surface temperatures by 16 degrees Fahrenheit (9 degrees Celsius) and sending global [calorie](#) production plummeting [by as much as 90%](#).

But in a new study, scientists found that within nine to 14 months of nuclear war, vast arrays of kelp grown on ropes in the Gulf of Mexico and across the Eastern seaboard could be harvested — helping to keep up to 1.2 billion humans fed.

At their fullest extent, the seaweed farms would replace 15% of the food currently consumed by humans, while also providing 50% of current biofuel production and 10% of animal feed. The researchers published their findings Jan. 9 in the journal [Earth's Future](#).

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The scientists' model revealed that kelp farms wouldn't just survive but thrive and expand as surface temperatures dropped. This is because colder air would force surface water to sink more, increasing the circulation of nutrient-rich water up from the depths to replace it.

As the iodine found in seaweed can be toxic to humans at high quantities, the uses for kelp grown in farms would primarily be indirect, the researchers said. But by using it to feed animals and produce biofuels, it would free up the surviving arable land for other crops.

[**This is an excerpt. Read the original post here**](#)