

Feeding cows seaweed could cut their methane emissions by 82%, scientists say

Researchers found cows belched out 82% less methane after putting small amount of seaweed in their feed for five months



Cows produce methane via microbes in their stomachs as they digest their fibrous food, in a process a little like fermentation. Photograph: Charlie Neibergall/AP

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Feeding seaweed to cows is a viable long-term method to reduce the emission of planet-heating gases from their burps and flatulence, scientists have found.

Researchers who put a small amount of seaweed into the feed of cattle over the course of five months found that the new diet caused the bovines to belch out 82% less methane, a potent greenhouse gas, into the atmosphere.

The finding builds on previous research that showed that seaweed could reduce cows' methane output over a shorter timespan. "We now have sound evidence that seaweed in cattle diet is effective at reducing greenhouse gases and that the

efficacy does not diminish over time,” said Ermias Kebreab, director of the World Food Center and an agricultural scientist at University of California, Davis.

Kebreab conducted the research, [published in Plos One](#), with Breanna Roque, a PhD graduate student.

Cows produce methane via microbes in their stomachs as they digest their fibrous food, in a process a little like fermentation. Methane is shorter-lived in the atmosphere than carbon dioxide but is more than 30 times as effective in trapping heat, making it a major greenhouse gas. A type of seaweed called *Asparagopsis taxiformis* can partially counteract these emissions from cows.

Agriculture makes up about 10% of emissions in the US, much of it from cows that belch, and to a lesser extent, fart out methane. This has led to some climate campaigners to urge people to eat less meat but the UC Davis researchers said that existing meat production could be made better for the climate by putting seaweed on the menu for cattle.

Two years ago, [separate research](#) by Kebreab and Roque found that the seaweed supplements reduced methane in dairy cows, with a blind taste test of milk finding that it didn't affect the milk output of the ruminants. The latest research, this time on beef cattle, similarly found no difference in the taste of the meat from seaweed-consuming animals.

The next challenge, according to the researchers, will be finding ranchers enough supply of *Asparagopsis taxiformis*, a crimson marine grass that drifts on waves and tides, given there isn't a bountiful supply of it available to farms.

“There is more work to be done, but we are very encouraged by these results,” Roque said. “We now have a clear answer to the question of whether seaweed supplements can sustainably reduce livestock methane emissions and its long-term effectiveness.”