

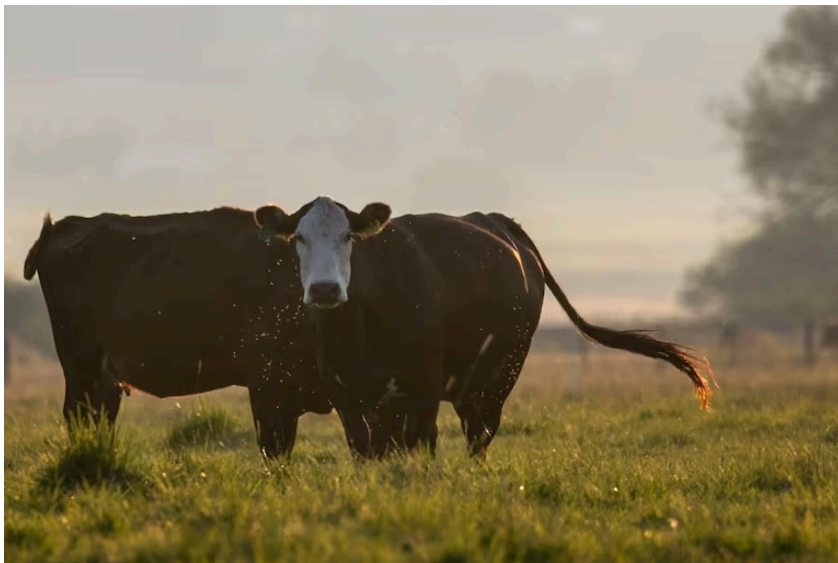
Cutting down on cow burps with seaweed? OSU to study a possible climate solution

Jefferson Public Radio | By [Roman Battaglia](#)

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Anna Lueck / OPB

Cows roam a field along Highway 30, just south of Baker City, Ore., in this July 30, 2024 file photo.

Oregon State University researchers just received a \$1 million grant from the U.S. Department of Agriculture to study how introducing seaweed to cow diets can reduce greenhouse gas emissions.

Seaweed has been studied before for its natural ability to reduce methane emissions in cattle. Cows, along with other ruminants, 'burr' methane as a byproduct of their

Donate

According to the EPA, cattle represent a quarter of all methane emissions in the U.S. Methane has 28 times the global warming power of CO₂.

"Most of the projects at this point where people try to mitigate methane is done with dairy cattle or feedlot cattle where it's easy to manipulate that type of diet," said Project Director Juliana Ranches.



Oregon State University

Juliana Ranches, OSU Extension beef specialist and assistant professor based in Burns, Oregon. May 6, 2024.

Her team will instead be studying cows on a 100-acre pasture in Eastern Oregon, where cows are mostly grazing on the land. She said they're hoping to learn how much seaweed is needed so that ranchers can implement this diet. On average, Ranches said studies have shown around a 30-50% reduction in methane emissions depending on the variables.

Ranches said the previous studies on seaweed supplements have used asparagopsis, a type of red algae originally researched over a decade ago. For this study, they'll be using Pacific dulse, a type of seaweed grown commercially by Oregon Seaweed in Garibaldi.

Ranches said this seaweed, which is grown in tanks, could be an easier way to scale production.

"Maybe one day every person can have a seaweed tank on their farm," she said.

Seaweed could also be used as a natural alternative to other ways of reducing methane emissions in cows, including a chemical additive commercially sold under the name

Bovaer.

This study will measure the methane emissions from these cows over a period of around three years. They're also looking for ways to boost the nutritional value of the seaweed through bio-engineering so it can be both a supplement and a way to reduce emissions for ranchers.

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Roman Battaglia

After graduating from Oregon State University, Roman came to JPR as part of the Charles Snowden Program for Excellence in Journalism in 2019. He then joined Delaware Public Media as a Report For America fellow before returning to the west coast. When not out in the field, Roman enjoys travelling and cross-stitching.

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