



Pink Seaweeds: The Potential Solution to Greenhouse Gas Emission

Ruminants are mammals that have a unique digestive system that enables them to feed off grass and vegetation. The agricultural sector takes care of ruminants like cows, which give meat, cheese, and milk for the human population, but along with these benefits comes a setback. Ruminants, through their ruminal microbiome, produce ample amounts of methane, a greenhouse gas that has an impact on the atmosphere, twenty-three times greater than carbon dioxide.

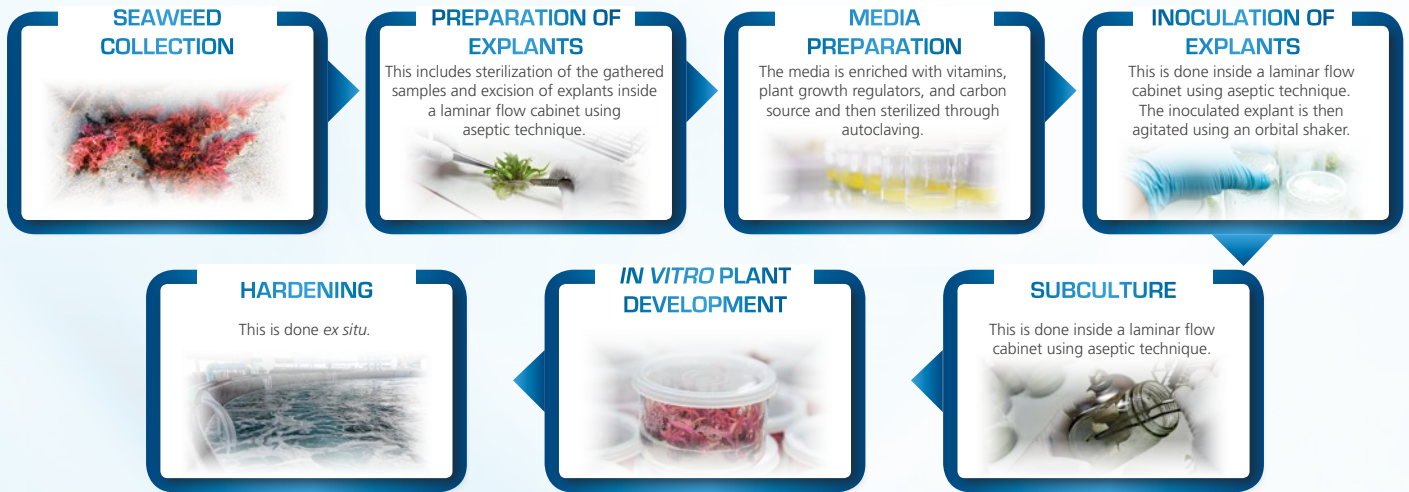
Seventy to one hundred twenty kilograms of methane is produced by a single cow annually. There are about 1.4 billion cattle worldwide, and together with other grazing animals, contribute 40 percent of the annual methane budget.



Various studies involving *Asparagopsis taxiformis*, a pinkish-colored seaweed that grows in tropical waters, resulted in the discovery of its promising effect on methane reduction. The pink seaweed was added to the cows' diet and significantly reduced 99% of natural gas production. Scientists suggest that this would greatly help scale down the greenhouse gas emission contribution of dairy farms all over the world.

Scientists are now studying various processes for successful mass production after the discovery of the pink seaweed species' ability to reduce greenhouse gas. One great potential solution to the uprising challenge is conducting tissue culture—an *in vitro* micropropagation of plants. This method is not just time and space-efficient, rather, it also cuts the risk of overexploitation of the seaweed's natural population.

IN SITU MICROPROPAGATION OF SEAWEED IS TYPICALLY SIMILAR TO THE PROCESS USED FOR HIGHER PLANTS.



Laboratories around the world are on a race to find the solution. Esco offers a wide range of laboratory equipment, each built steadfast with our aim to provide enabling technologies to make human lives healthier and safer.

PRODUCTS OFFERED:



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Refrigerated Incubator Shaker



Model: OFA

Laboratory Oven



Model: LHG-DS

Laminar Flow Cabinet

References:

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