Microbes in Additional Systems

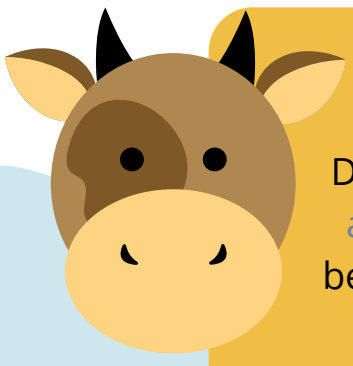
We've learned that microbes live in our gut, on our skin, in the ground and in the ocean! But, where else do microbes live? And how can they be used in the future?

Melting of the Cryosphere

The cryosphere is the part of the part of the Earth that is solid, frozen water. As climate change progresses, the Earth is continuing to warm which is melting the Earth's cryosphere.

Microbes in the Ice

Due to the cryosphere being so cold, the microbes found within the ice are often polyextremophiles. It is feared that these microbes may increase the rate of climate change and bring unknown pathogens or antibiotic resistance.

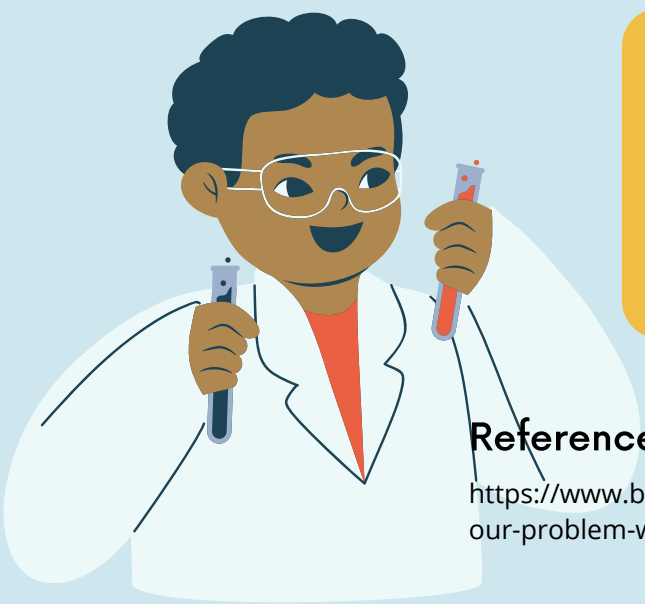


Carbon-Free Cows

Due to livestock being responsible for up to 14% of all greenhouse emissions, carbon-free cows have been modified to prevent the growth of microbes in their gut that produce methane as a byproduct.

Mitigating GHG emissions

You can also mitigate GHG emissions from cows by selective breeding for cows with less methane production or providing supplements/food that inhibit methanogenesis. We can also decrease our meat consumption and need for livestock.



Now What?

We can all actively contribute to prevent further melting of the cryosphere and mitigate GHG emissions by lowering our carbon footprint through less meat and energy consumption.

References

https://www.bbc.com/future/article/20190806-how-vaccines-could-fix-our-problem-with-cow-emissions