

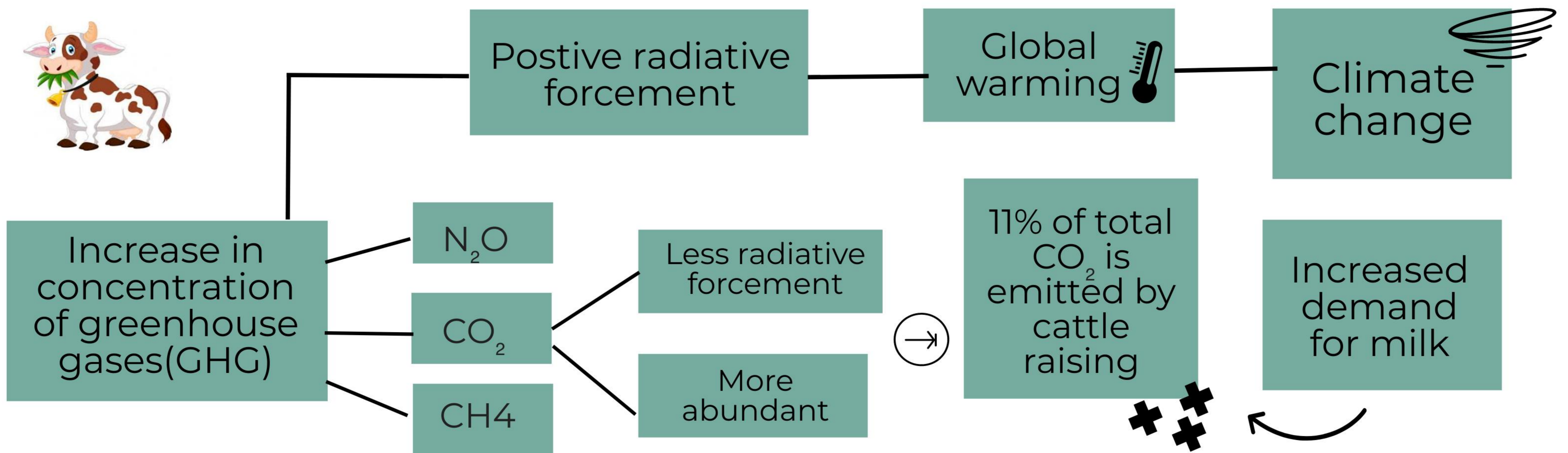
Carbon footprint in dairy production systems

Daniel Blázquez Alarcón
Faculty of Veterinary Medicine UAB, June 2020

Objectives

The main objective is to raise awareness of the importance of studying environmental problems.

Furthermore, it aims to be an introductory tool for dairy cattle farms interested in reducing the impact they generate.



What could dairy production systems do?

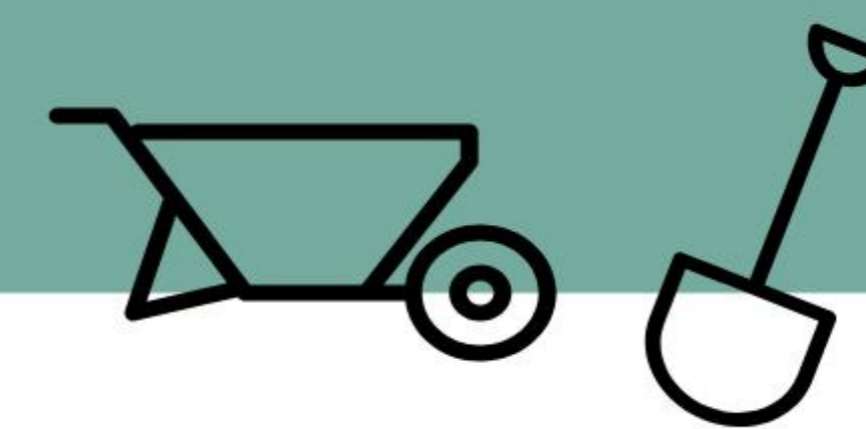


- **Environmental indicator that aims to reflect the totality of Greenhouse Gases emitted by direct or indirect effect of an individual, an organization, an event or a product.**
- **Measured in equivalent CO₂ mass.**

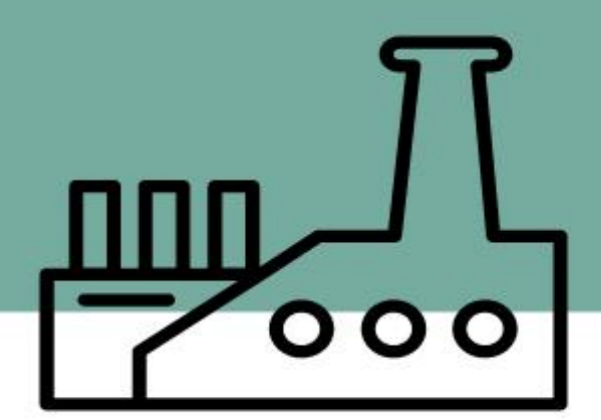
How do dairy production systems **produce GHG?**



Enteric fermentation of cattle



Manure management



Energy consumption

How could dairy systems in EU decrease their carbon footprint?

CH₄ represents 52% of GHG emitted by dairy production systems

Changes in diet

- Particle size
- Forage quality
- Addition of grain legumes
- Use of lipids
- Nitrates addition

Genetic improvements

- High production cattle
- High concentration of proteobacterias
- Less prone to present ciliate microorganisms

Conclusions



As vets, our mission is to assess and persuade farmers to reduce their carbon footprint



The biggest problem is the use of non-renewable energies, including in dairy production systems