

# Grassland Science Department

## **Title**

Large scale methane measurements on individual ruminants for genetic evaluations

## **Abstract**

Methane is a greenhouse gas (GHG) that contributes to climate change. The livestock sector, particularly ruminants, is estimated to contribute up to 18% of total global anthropogenic GHG emissions. Preliminary data suggest that genetic selection to reduce methane emissions is possible. However, successful breeding programs require large datasets of individual animal measurements which cannot be generated by any EU country working alone. Smaller datasets of methane measurements are being generated by individual countries across the EU, which could be combined if agreement could be reached on how best to harmonise the data. Discussing harmonisation and protocols for future collection of such data is the focus of this METHAGENE network. METHAGENE brings together experts from at least 31 organisations in 17 COST countries. It aims to discuss and agree on 1) protocols to harmonise large-scale methane measurements using different techniques; 2) easy to record and inexpensive proxies for methane emissions to be used for genetic evaluations; and 3) approaches for incorporating methane emissions into national breeding strategies. METHAGENE will co-ordinate and strengthen EU scientific and technical research through improved cooperation and interactions, which is essential for breeding ruminants with lower environmental footprints resulting in less contribution to global warming. METHAGENE is a COST Action.

**Project Leader:** Eva Lewis

## **Programme/Subprogramme/RMIS Number:**

AGRIP – Moorepark Grassland Science-Grass Feed and Value-6580

**Start Date:** 10/12/13      **End Date:** 9/10/17