

GLOBAL
RESEARCH
ALLIANCE

ON AGRICULTURAL GREENHOUSE GASES

Belgium

Summary of relevant activities, future priorities and capability needs.

Input to 2023 Livestock Research Group Meeting
Lyon, France

Relevant activities

- *On farm carbon footprint calculation (KLIMREK (FL), DECiDE (WA))*
- *Carbon sequestration, soil health (EJP SOIL)*
- *Manure emissions: CH₄, NH₃, N₂O, CO₂*
 - *Manure containers testing facility*
 - *E.g. zeolites, biochar, manure acidifiers,...*
- *Genetic diversity in methane emissions, milk composition,...*
- *Covenant enteric emissions cattle (2019-2030)*
 - *16 partners from the agricultural sector (industry, research, government,...)*
 - *Goal: Reduction of enteric CH₄ emissions with 19% by 2030 compared to 2005*
 - *2023: 15 different voluntary measures, of which 7 are subsidized – feeding, management and genetic strategies*
 - *METHEEN (2023-2025): Demonstrating the covenant measures in practice*
- *Climate adaptation: drought-tolerant grass species (KLIMGRAS), saline agriculture (SALAD),...*
- *Influence of government policy on long-term management choices and rentability (Routeplanner Melkvee 2.0)*

Future priorities

- *NH₃ ('nitrogen crisis' in Flanders and the Netherlands)*
- *N₂O and other soil emissions*
- *Soil fertility*
- *More circular agriculture, incorporating sustainability and biodiversity*
- *More Tier 2 & 3 methodology introduced in NIR*
- *Less incriminating protein importation*
- *Maximize valorization of byproducts*
- *Less mineral fertilization and optimization organic manure*
- *Introduce more adaptation strategies*
- *Genetics and selection of robust animals*

Capability needs

- *Focus on both nitrogen AND greenhouse gas emission reductions*
- *Implementation of covenant measures (evaluation in 2025) (FL)*
- *Integral sector approach*
- *Integral nutrient approach (C, N, P)*
- *Socio-economic impact of measures and strategies*
- *Strengthen international networks*