



# Measures for Greenhouse Gas Mitigation in Agriculture

Wednesday 30 April 2014

Rothamsted Research, Harpenden, UK

Organised by SCI's BioResources Group



- 09:00** Registration and refreshments
- 09:45** Chairman's introduction
- 10:00** **Counting the contribution of  $N_2O$  from grassland systems**  
David Chadwick, Bangor, InveN2Ory
- 10:35** **Greenhouse gas emissions from UK arable agriculture**  
Keith Goulding, Rothamsted Research
- 11:10** Refreshments
- 11:40** **Accounting for emissions from UK fertiliser manufacture and agronomy for nutrient use efficiency: a growing project**  
Elaine Jewkes, GrowHow
- 12.15** **Greenhouse gas mitigation options in mineral fertilizer production and use**  
Frank Brentrup, Yara
- 12.50** Lunch
- 13.50** Chairman's introduction
- 14.00** **Improving nitrogen use efficiency in crops: questions and approaches**  
Bertrand Hirel, INRA
- 14:35** **Quantity and quality: the breeders N challenge**  
Ed Flatman, Limagrain
- 15.10** Refreshments
- 15.45** **The potential for using legumes to provide N inputs to European agriculture**  
Robert Rees, SRUC Carbon Managment
- 16:15** **Optimal N fertiliser application rates to achieve optimal grain yield per kg of  $N_2O$**   
Roger Sylvester Bradley, ADAS
- 16.50** Discussion
- 17:15** Close



## Organiser

Tony Hooper, Rothamsted Research

## Synopsis

This one day event will focus on the power of chemistry in an applied environment.

The UK is committed to reduction in greenhouse gas emissions, including an 80% cut in N<sub>2</sub>O by 2050, for which agriculture contributes over 80%. Reductions in nitrous oxide emissions have been successful over recent years but further reductions are promised and must be provided from the agricultural business sector. This is contradictory to the need to secure UK food security with increased yields in agriculture and with a required nitrogen supply for crop health.

Maintaining food security requires the addition of large amounts of N into arable and grassland systems and reduced generation of greenhouse gases is a shared goal between the research and industrial communities.

This meeting promotes positive contributions to reduce GHG production in the agriculture sector that are applicable now and in the foreseeable future. The interaction between fertilizer companies, plant breeders and researchers in the field will target practical applications that can make a significant difference.

## Attendees

The meeting brings together leaders from diverse aspects of greenhouse gas science and industry. They include monitoring in grassland and arable agriculture, mitigations in the production and application of fertilizer products and increased nitrogen use efficiency through plant breeding and genetics in crops within UK and European agriculture. Increased interaction between these stakeholders will promote a practical, combined approach for reduction in agricultural emissions.

The meeting will provide an exciting forum for stakeholders in the fields of plant breeding, fertilizer supply, plant science, policy making, monitoring and new agronomic practice.

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