

# Professor Robert (Bob) Martin Rees

## Institute

---

Scotland's Rural College (SRUC)

## Qualifications

---

BSc Hons; PhD; F.I. Soil Sci

## Employment history

---

2011-present	Head of SAC/SRUC Carbon Management Centre
2010-2011	Senior Soil Scientist (Grade 2), SAC, Edinburgh
1997-2010	Senior Soil Scientist (Grade 3), SAC Edinburgh
1987-1998	Soil Scientist, SAC Edinburgh
1985-1987	Postdoctoral Research Assistant, University of Aberdeen

## Role and responsibilities

---

- Head of the SRUC Carbon Management Centre
- Lead research on climate change, greenhouse gas measurement and mitigation Principal Investigator in eight current research projects
- Supervision of three current PhD students
- Teaching to BSc and MSc students
- Member of the former SRUC/University of Edinburgh Academic liaison committee

## Synopsis of current and future research interests

---

A Professor in Agriculture and Climate Change, with research interests in carbon sequestration, agricultural greenhouse gas mitigation and adaptation. A soil and environmental scientist, with a long established history of research in nitrogen and carbon cycling and soil management in a range of crop and soil systems and over 100 peer reviewed publications. A significant involvement in EU funded research programmes, and recently co-ordinated Legume-Futures an EU Framework project on the role of legumes in farming systems. A participant in the recent Committee on Climate Change project on Marginal Abatement Cost Curves, and in an EU project on climate change adaptation (Climate Café). Currently expanding research activities on greenhouse gas mitigation and nitrogen management in China and sub-Saharan Africa. Supporting the development of the next Research Excellence Framework submission on behalf of SRUC and the University of Edinburgh.

## Measures of esteem

---

- Elected official of the International Union of Soil Sciences (2018-2022)
- External Examiner for Environmental Science at Trinity College Dublin (2014-2017)
- External Examiner for Climate Change and Sustainable Development, University of Mauritius (2018-19)
- Assistant Editor for Soil Use and Management
- Speciality Chief Editor Frontiers Sustainable Food Systems,

## Recent Publications

---

Abdalla, M., Hastings, A., Chadwick, D.R., Jones, D.L., Evans, C.D., Jones, M.B., Rees, R.M. & Smith, P. 2018. Critical review of the impacts of grazing on soil organic carbon storage and other soil quality indicators in extensively managed grasslands. *Agriculture, Ecosystems and Environment*, 253, 62-81.

Myrgiotis, V., Williams, M., Topp, C.F. & Rees, R.M. 2018. Improving model prediction of soil N<sub>2</sub>O emissions through Bayesian calibration. *Science of the Total Environment*, 624, 1467-1477.

Fitton, N., Datta, A., Cloy, J.M., Rees, R.M., Topp, C.F.E., Bell, M.J., Cardenas, L.M., Williams, J., Smith, K. & Thorman, R. 2017. Modelling spatial and inter-annual variations of nitrous oxide emissions from UK cropland and grasslands using DailyDayCent. *Agriculture, Ecosystems & Environment*, 250, 1-11.

Scalise, A., Pappa, V.A., Gelsomino, A. & Rees, R.M. 2017. Pea cultivar and wheat residues affect carbon/nitrogen dynamics in pea-triticale intercropping: A microcosms approach. *Science of the Total Environment*, 592, 436-450.

Van der Weerden, T.J., Laurenson, S., Vogeler, I., Beukes, P.C., Thomas, S.M., Rees, R.M., CFE, Topp., Lanigan, G. & de Klein, C.A.M. 2017. Mitigating nitrous oxide and manure-derived methane emissions by removing cows in response to wet soil conditions. *Agricultural Systems*, 156, 126-138.

Whitfield, S., Challinor, A.J. & Rees, R.M. 2018. Frontiers in Climate Smart Food Systems: Outlining the Research Space. *Frontiers in Sustainable Food Systems*, 2, 2.

Sykes, A.J., Topp, C.F.E., Wilson, R.M., Reid, G., and Rees, R.M. 2017. A comparison of farm-level greenhouse gas calculators in their application on beef production systems. *Journal of Cleaner Production*. **164**, 398-409.

van der Weerden, T.J., Laurenson, S., Vogeler, I., Beukes, P.C., Thomas, S.M., Rees, R.M., Topp, C.F.E., Lanigan, G., & de Klein, C.A.M. 2017. Mitigating nitrous oxide and manure-derived methane emissions by removing cows in response to wet soil conditions. *Agricultural Systems*, **156**, 126-138.

Tellez-Rio, A., Vallejo, A., Garca-Marco, S., Martin-Lammerding, D., Tenorio, J.L., Rees, R.M. & Guardia, G. 2017. Conservation Agriculture practices reduce the global warming potential of rainfed low N input semi-arid agriculture. *European Journal of Agronomy*, **84**, 95-104.

Scialise, A., Pappa, V.A., Gelsomino, A., and Rees, R.M. 2017. Pea cultivar and wheat residues affect carbon/nitrogen dynamics in pea-triticale intercropping: A microcosms approach. *Science of the Total Environment*, **592**, 436-450.

Badagliacca, G., Ruisi, P., Rees, R.M. & Saia, S. 2017. An assessment of factors controlling N<sub>2</sub>O and CO<sub>2</sub> emissions from crop residues using different measurement approaches. *Biology and Fertility of Soils*, **53**, 547-561.

Jones, S.K., Helfter, C., Anderson, M., Coyle, M., Campbell, C., Famulari, D., Di Marco, C., van Dijk, N., Topp, C.F.E., Kiese, R., Kindler, R., Siemens, J., Schrupf, M., Kaiser, K., Nemitz, E., Levy, P., Rees, R.M., Sutton, M.A. & Skiba, U.M. 2017. The nitrogen, carbon and greenhouse gas budget of a grazed, cut and fertilised temperate grassland. *Biogeosciences*, **14**, 2069–2088.

Iannetta, P.P.M., Young, M., Bachinger, J., Bergkvist, G., Doltra, J., Lopez-Bellido, R.J., Monti, M., Pappa, V.A., Reckling, M., Topp, C.F.E., Walker, R.L., Rees, R.M., Watson, C.A., James, E.K., Squire, G.R. & Begg, G.S. 2016. A Comparative Nitrogen Balance and Productivity Analysis of Legume and Non-legume Supported Cropping Systems: The Potential Role of Biological Nitrogen Fixation. *Frontiers in Plant Science*, **7**, 1700.

Rees, R.M., Barnes, A.P. & Moran, D. 2016. Sustainable intensification: the pathway to low carbon farming? *Regional Environmental Change*, **16**, 2253-2255.