Nitrous oxide: definitely no laughing matter

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Farmers, food suppliers, policy-makers, business leaders and environmentalists are joining forces to confront the threat of the 'forgotten greenhouse gas' by taking part in an influential new forum at the University of East Anglia (UEA).

Launched on February 22, the Nitrous Oxide Focus Group will engage with many influential organisations including the National Farmers Union, Marks & Spencer, British Sugar, Defra, the Country Land and Business Association and Unilever.

The group will present and explore cutting edge research into the sources and sinks of nitrous oxide in the environment and discuss the prospects of mitigating the release of this destructive gas through re-shaping current policies and practice.

"People are becoming increasingly concerned about the immense problems associated with the unregulated release of this potent greenhouse gas," said Prof David Richardson, Dean of the Faculty of Science at UEA and co-ordinator of the Nitrous Oxide Focus Group.

"It is very encouraging that so many key figures from agriculture, industry and government are interested in mitigating nitrous oxide emissions by learning more about key research questions that are currently being addressed with government funding by groups within UEA, along with collaborating research groups across the UK and Europe."

Better known as ‘laughing gas’, nitrous oxide (N2O) accounts for 9 per cent of all greenhouse gases, yet is 300 times more potent than carbon dioxide (CO2). As a result its longevity in the atmosphere provides a potentially more damaging legacy than CO2.

Agriculture accounts for around 70 per cent of N2O emissions. The sources are mainly from soil micro-organisms that make N2O from nitrogen-rich fertilisers added to soils to maximise crop yields. Other significant biological sources of N2O come from the wastewater treatment industries where the greenhouse gas is again produced from micro-organisms.

The launch of the new consortium is underpinned by more than five years of interdisciplinary research at UEA and comes as significant new research on an N2O-generating enzyme from a widespread soil bacterium is published.

Source: University of East Anglia