

Fish oils reduce greenhouse gas emissions from flatulent cows

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Society for General Microbiology

Dianne Stilwell

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The benefits to animals of omega 3 fatty acids in fish oils have been well documented - helping the heart and circulatory system, improving meat quality and reducing methane emissions.

These last two benefits may only apply to cows but lowering emissions is important for the environment, as methane given off by farm animals is a major contribution to greenhouse gas levels. Today (Monday 30 March) researchers from University College Dublin reported that by including 2% fish oil in the diet of cattle they achieved a reduction in the amount of methane released by the animals.

Speaking at the Society for General Microbiology meeting in Harrogate, Dr Lorraine Lillis, one of the researchers, said, "The fish oil affects the methane-producing bacteria in the rumen part of the cow's gut, leading to reduced emissions. Understanding which microbial species are particularly influenced by changes in diet and relating them to methane production could bring about a more targeted approach to reducing methane emissions in animals."

More than a third of all methane emissions, around 900 billion tonnes every year, are produced by methanogen bacteria that live in the digestive systems of ruminants such as cattle, sheep and goats. By volume, methane is 20 times more powerful at trapping solar energy than carbon dioxide making it a potent greenhouse gas.

Approximately 50% of Irish agricultural methane emissions result from farm animals; there have been suggestions that, to help combat global warming, a cap be placed on the number of animals in animal production due to their methane production but with a reduction in methane levels through diet this may not be as necessary