



GHG emissions and mitigation potential in organic egg production

Sylvia Vetter (1), Daniella Malin (2), Pete Smith (1), and Jon Hillier (1)

(1) Institute of Biological and Environmental Sciences, University of Aberdeen, Aberdeen AB24 3UU, UK , (2) Sustainable Food Lab, 3 Linden Road, Hartland, VT 05048, USA

Models and tools are used to estimate greenhouse gas (GHG) emissions in agriculture from management processes when measurements are not available. The Cool Farm Tool is widely used by farmers for this purpose. This study focus on the livestock part of the tool. The GHG emissions from livestock include enteric methane emissions from ruminants, nitrous oxide emissions from manure management, land use and land-use change, feed production, processing and transport. A case study is presented of organic egg producers in the USA, who used the tool over three years to calculate their emissions with the Cool Farm Tool. The highest GHG emissions were produced through feed, followed by transport and manure management. The farmers became more aware about the emissions in egg production and started to take action to reduce emissions. The results showed that the averaged GHG emissions decreased over the three years of the study.