Overview - Agricultural Statistics and Climate Change (6th Edition)

The sixth edition of Agricultural Statistics and Climate Change, published on the 30th of July 2015, is an overview of previously published national level statistics on agriculture. Published every year since 2011, it provides some background context to the current understanding of agriculture and greenhouse gas (GHG) emissions and explains the gaps, uncertainties and limitations in the statistics. The publication also includes information on current research and provides some international comparisons.

This latest edition includes links to results from the 2015 Farm Practices Survey, the 2014 British Survey of Fertiliser Practice and updates the indicator framework that monitors greenhouse gas emissions from agriculture. Other charts and tables have also been updated where more recent data are available.

The current methodology used to report emissions from agriculture is predominantly based on the number of livestock animals and the amount of nitrogen based fertiliser applied. A variety of factors which influence emissions are unable to be captured by this methodology (e.g. soil conditions, weather, farm practices) and as a result there are relatively large uncertainties around the estimates for agricultural emissions. Research is underway to enable future estimates to better reflect the true position; Defra and the Devolved Administration Governments are investing over £12 million in the development of an improved GHG Inventory for agriculture. Improved emissions factors from this research are currently being incorporated into the 2016 UK agricultural GHG inventory and it is planned to use the fully revised smart inventory model in the 2017 inventory.

The publication provides valuable information during the transition to an improved GHG Inventory and brings together a range of statistics that relate directly and indirectly to emissions, which can give an indication of whether agriculture is increasing its efficiency in ways that reduce GHG emissions. These include data on slaughter weights and ages, feed conversion ratios, livestock mortality, fertiliser use and land use. Data relating to on-farm practices can give a picture of farmer awareness and the level of uptake of measures to reduce emissions. For example:

- In 2015, 52% of farmers thought it important to consider GHGs when making farm business decisions. These results show a small increase from 2014.
- Uptake of mitigation methods provide a measure of progress towards achieving the industry's ambition to reduce agricultural production emissions by 3 $MtCO_2$ equivalent by 2020 compared to a 2007 baseline. Uptake levels by early 2015 suggest that a 1.1 Mt CO_2 equivalent reduction in GHGs has been achieved. This is around 31% of the estimated maximum technical potential[1]. A key component of this has been the uptake of practices relating to nutrient management, such as the use of fertiliser recommendation systems.

The full publication is available at:
https://www.gov.uk/government/statistics/agricultural-statistics-and-climate-change

[1] Maximum technical potential is the amount that could be saved if all mitigation potential was enacted regardless of cost assuming no prior implementation of measures.