

Indicator 4: Pig sector - feed conversion ratio

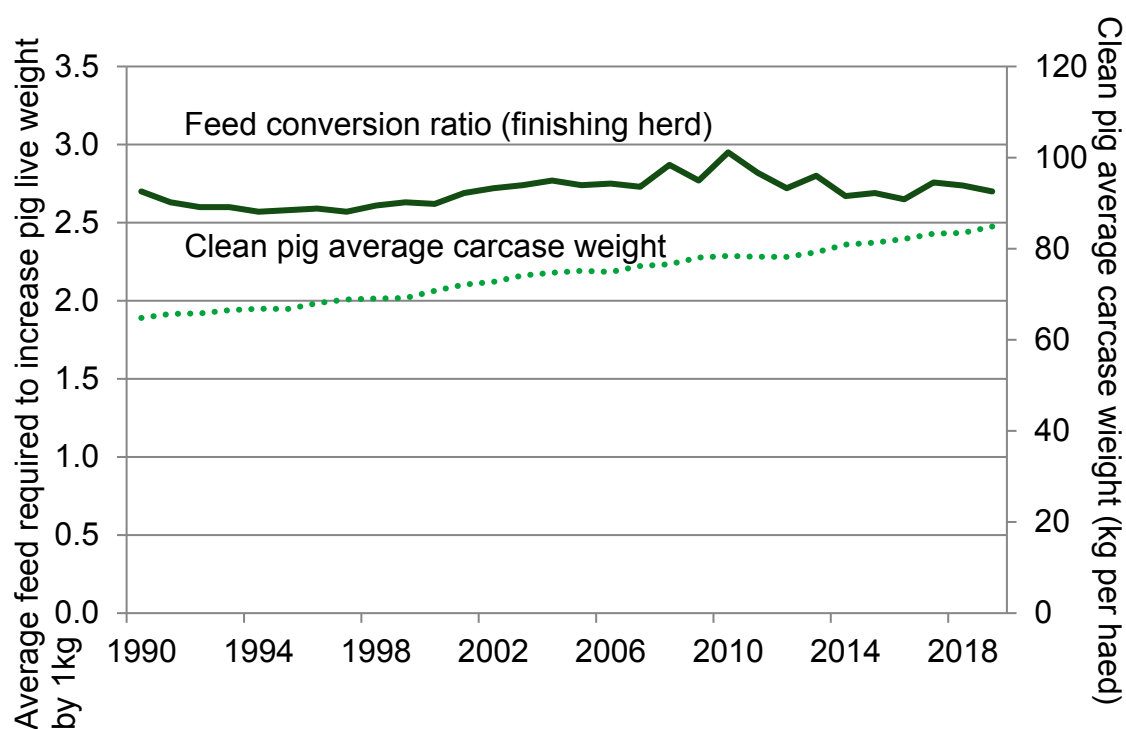
Rationale: The feed conversion ratio is a measure of the amount of feed required to produce one kilogramme of pig live weight. More efficient use of feed has the potential to reduce greenhouse gas (GHG) intensity and improve productivity.

Indicator: Feed conversion ratio of the finishing herd for Great Britain (GB).

Desired outcome: Improved GHG intensity through feed efficiency will be reflected by a reducing feed conversion ratio (FCR) while carcass weights are improved or maintained.

Current status	Long term: (last 10 years) ≈	Short term: (2 years) ×
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Feed conversion ratios: GB finishing herd



Sources: Feed conversion AHDB Pork, carcass weight Slaughterhouse surveys, Defra, The Scottish Government, DARD (NI)

The feed conversion ratio for the pig finishing herd deteriorated from around 1995 to 2009, suggesting higher levels of GHG emissions from the GB finishing herd over this period. Several factors could explain this including the trend towards heavier finishing weights, changes in production systems and disease. As FCR is a broad indicator of feed use efficiency and GHG emissions, it is not possible to separate the effects of different factors (such as type of feed) on emissions from the finishing herd.

From 2009 to 2019 there have been many fluctuations in the FCR, more recently the FCR is at a higher level meaning more feed was used to produce 1 kg of pig live weight. The clean pig average carcass weight also rises steadily over this time period.

Data sources

The feed conversion ratios are taken from publicly available datasets on the [AHDB Pork¹ website](#). These data are produced by the AHDB Market Intelligence team and are not official government statistics. Average carcass weights are sourced from the Defra monthly Slaughterhouse Survey.

Indicator methodology

The indicator uses feed conversion ratio (FCR) data based on the December year end FCR for each year. The finishing herd are finishing pigs weighing from 35kg to slaughter at around 110kg liveweight. The average clean pig carcass weight is an indicative figure based on UK level averages.

This indicator and others in the framework that focus on livestock give an insight into the efficiency of production where this can impact on GHG emissions and are intended to be viewed within the context of animal welfare regulations and legislation. In order to examine the wider potential implications of GHG mitigation measures Defra commissioned a research project in 2012 (project AC0226²) which considers the impacts of efficiency measures on a range of areas including animal health and welfare.

Statistical background

Feed conversion ratio data

The feed conversion ratio data for the pig finishing herd are collected by Agrosoft Ltd from customers submitting regular data. Agrosoft software calculates the FCR from the weight gain and feed consumed input into the system and is the number of kilos of feed per kilo of weight gain. The submitted data currently cover approximately 200,000 finishing pigs although for years prior to 2013 this figure was around 470,000 finishing pigs. Data is provided quarterly on a twelve month rolling basis. For example, data received for the quarter ending Dec 2016 would be delivered in February 2017 and represent the performance for the twelve months ending December 2016. Agrosoft Ltd verifies all data before delivery/publication.

The Slaughterhouse Survey

Defra's monthly survey of registered England and Wales slaughterhouses is a statutory survey (approximately 91 respondents) that collects information on livestock slaughter numbers and weight of meat produced.

Statistical background (continued)

The data are supplemented by administrative data for smaller slaughterhouses. All major slaughterhouses participate in the Slaughterhouse Survey and the response rate is typically 100%. Similar surveys are run by RERAD in Scotland and by DARD in Northern Ireland.

Further methodological details can be found on the slaughter [website](#).

The Slaughterhouse Survey results are designated National Statistics. These are official statistics which have been assessed and comply with the National Statistics code of practice

¹ AHDB Pork is a division of the Agriculture and Horticulture Development Board representing pig levy payers in England.

² Quantifying, monitoring and minimising wider impacts of GHG mitigation measures – AC0226

<http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&ProjectID=17780&FromSearch=Y&Publisher=1&SearchText=AC0226&SortString=ProjectCode&SortOrder=Asc&Paging=10#Description>