

Pork belly cuts better for environment than beef steak

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Milk, eggs, pork and chicken are friendlier for the environment than beef. This is the conclusion after examining sixteen life cycle assessment (LCA) studies of animal products. However, the margins for the various measurements are big.

This is the first time that results of scientific LCA studies of animal products are compared based on aspects of environmental friendliness. This is not an easy task because the measurements are somewhat different from one study to another. Moreover, a kilo of milk cannot be compared exactly to a kilo of meat, says Imke de Boer of the Animal Production Systems Group. Together with Marion de Vries, she published the results of the comparison last week in *Livestock Science*.

The global warming potential of a kilo of [pork](#) varies from 3.9 to 10 kilos of CO₂-equivalents; that of a kilo of chicken from 3.7 to 6.9 kilos. The impact of beef on the environment lies between 14 and 32 kilos of CO₂-equivalents. The production of a kilo of beef also requires a bigger land area and more [fossil energy](#). Studies into chicken and pork have shown that chicken scores just a little better than pork.

The differences in environmental impact among [chickens](#), pigs and cattle are caused by differences in animal feed and reproduction. 'The environmental impact will be less serious when animal feed is used more efficiently, or when the female animal can produce more offsprings', de Boer explains.

Meat directive

The meat directive announced a few months ago that chicken is better for the environment than pork, while beef does the most damage. The directive is based on LCA studies done by Blonk Milieuadvies.

However, De Boer and De Vries point to the risks of using LCA results directly in an instrument such as the meat directive. A LCA does not account for the fact that [pigs](#) and chickens consume products that humans also eat, such as grain, maize and soya, while grazing cattle do not do that.

If environmental impact caused by a kilo of protein is compared, [beef](#) tops the list of products. However, the differences among milk, chicken, eggs and pork seem to be less straightforward. There was only one study which compared the [environmental impact](#) of chicken and pork to that of milk and eggs. To arrive at definitive conclusions will require more comparative studies.

Harmonization

'It would also be useful', adds De Boer, 'if LCA studies in Europe can be made more comparable in the future.' She is involved in bringing together various institutes which produce life cycle assessments of animal products, such as INRA in France, SIK in Sweden and ART Zurich in Switzerland. Blonk Milieuadvies has also been invited to join this group. 'We want to see a harmonization of the methods and data used. This will also benefit the discussion about the carbon footprint of products', says De Boer. 'We want to help to make animal farming more sustainable and consumers more environment conscious. This process would require openness about research methods and justification of the data collected.'

Provided by Wageningen University

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