

Minus 49 percent: poultry farm Teichweiden reduces CO₂ emissions in egg production

The carbon footprint^[1] of eggs is largely determined by the choice of feed for laying hens. A recent study by the Research Institute of Organic Agriculture (FiBL) Austria proves this based on eggs of the poultry farm Teichweiden in Thuringia - Germany. Compared to the average German egg, the eggs from the poultry farm Teichweiden avoid 1.4 kg CO₂ per kilogram egg. At total emissions of 2.9 kg CO₂ per kg egg, this corresponds to a reduction of an impressive 49%.

Our food choices are key to reduce the carbon footprint



Food consumption accounts for one quarter of individual greenhouse gas emissions per year.^[2] Therefore, food choices play a crucial role in consumers' personal carbon footprint. In the production of animal-based food, relevant amounts of greenhouse gas emissions already emerge during animal feed production. Globally, the change in land use - for example from grassland or forest to agricultural land - accounts for large amounts of greenhouse gases.^[3]

Laying hens from poultry farm Teichweiden are fed Donau Soja / Europe Soya-certified soya. Photo: Poultry farm Teichweiden

Data from the National Institute for Space Research (INPE) in Brazil show that between 2000 and 2016, about 5.3 million hectares of natural land in the Amazon and the Cerrado were converted into arable land for soya cultivation.^[4] This area corresponds to about one third of arable land in Germany or more than eight times the arable land in Thuringia.

About 40% of the soya imported to the European Union originate from Brazil. These imports are mainly used as high-protein feed in livestock production. Soya feed from the Amazon region or the Cerrado is polluted with high CO₂ emissions due to land conversions. This results in a CO₂ footprint for Brazilian soya being about 10 times higher than for Donau Soja / Europe Soya certified soya feed.

Minus 49 percent: This is how the poultry farm Teichweiden reduces the footprint in egg production

The choice of feed has a significant impact on greenhouse gas emissions. This was proven by the study of FiBL Austria using the example of the poultry farm Teichweiden in the German Free State of Thuringia (see figure).

Compared to the average German egg, especially the feed mix for the laying hens at the poultry farm Teichweiden as well as other factors such as low barn emissions lead to an impressive avoidance of 1.4 kg of CO₂ per kg of egg. With total emissions of 2.9 kg CO₂ per kg egg, this corresponds to a reduction of around 49%!

Not only the reduced use of soya is responsible for the low emissions related to soya feed, but also the origin of the soya beans is essential: the use of Donau Soja/ Europe Soya certified soya beans reduces emissions by 0.3 kg CO₂ per kg egg compared to feeding with overseas soya.

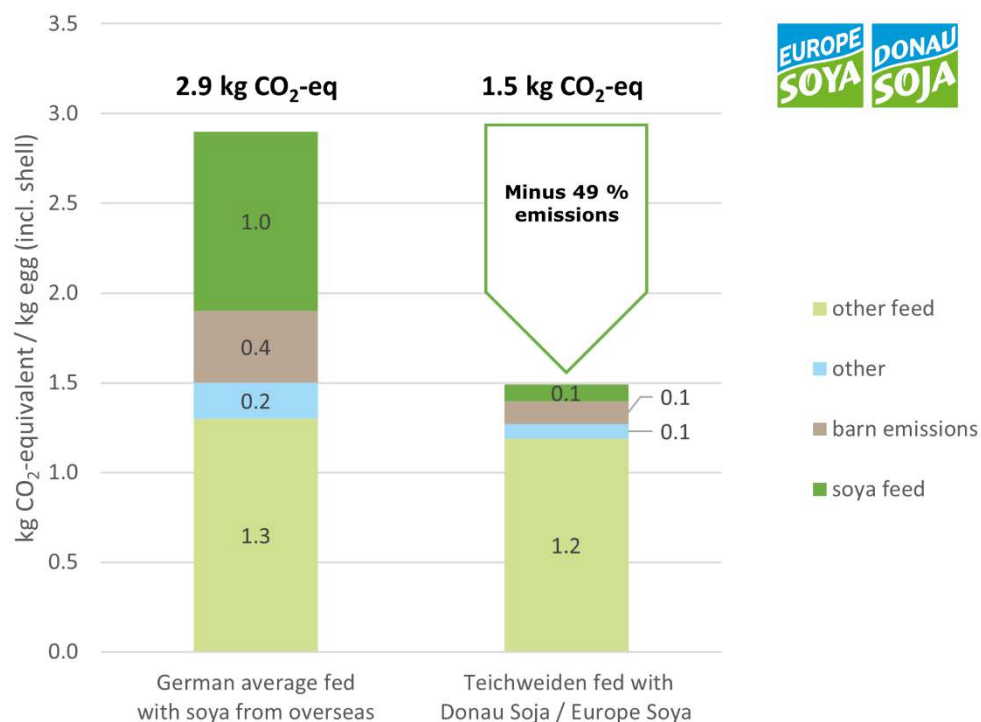


Figure: Global warming potential of 1 kg of shell eggs - comparison of poultry farm Teichweiden eggs produced from laying hens fed with Donau Soja / Europe Soya, mixed husbandry, versus German average eggs produced from laying hens fed with soya from overseas (25% USA, 75% Brazil), barn eggs.

Why the feed of Teichweiden laying hens is special

The European Union is heavily dependent on soya imports. In 2020, these amounted to over 35 million tonnes, mainly from overseas. About 11 million hectares are needed to meet this demand - just under one and a half times the area of Austria or about seven times the area of Thuringia! According to the Sustainable Trade Initiative (IDH), only 25% of the EU's soya demand comes from certified deforestation-free production, as guaranteed by Donau Soja. *[Note: Based on certified deforestation-free volumes (incl. credits by six recognised soya standards)].*^[5] In Germany, around 3.5 million tonnes of soya are consumed annually.



*Free-range laying hens on the farm.
Photo: Poultry farm Teichweiden*

The poultry farm Teichweiden is a pioneer and uses European and deforestation-free feed. The proportion of soya, peas and rapeseed has been optimised to reduce emissions, strengthen regional added value and avoid long transport routes. Since 2017, the laying hens at poultry farm Teichweiden are fed Donau Soja / Europe Soya -certified soya from Europe.



The Europe Soya / Donau Soja quality labels stand for and quality- and origin-controlled soya feeds

The quality labels Donau Soja / Europe Soya guarantee non-GM, sustainably produced soya of European origin. Donau Soja / Europe Soya certified supply chains protect valuable ecosystems: Soya is only cultivated on land that was dedicated for agricultural use not later than 1 January 2008. By relying on Donau Soja / Europe Soya, poultry farm Teichweiden actively contributes to the preservation of forests and other valuable ecosystems and thus to climate protection.

About the study

In 2021, Donau Soja commissioned the Research Institute of Organic Agriculture (German: Forschungsinstitut für biologischen Landbau, in short: FiBL) Austria to investigate the effects of using Donau Soja / Europe Soya certified products in the carbon footprint of eggs at the poultry farm Teichweiden. The primary data collection at the poultry farm Teichweiden took place in September-November 2021. Data on the carbon footprint at the level of soybean production are an essential part of the study and were collected by Footprint-Consult e.U..

Donau Soja would like to thank the poultry farm Teichweiden, the feed mill MFL Edderitz (DE), the soya processing company Oleificio San Giorgio (IT) and the participating soyabean producers for their support in the data collection.

About the the poultry farm Teichweiden

Since 1970 laying hens are kept at the poultry farm Teichweiden to produce high-quality, fresh eggs. "Buying regionally means supporting the regional economy" is a guiding principle of the Thuringian egg producer. The poultry farm Teichweiden is a traditional and at the same time forward-looking company that combines all production steps in one hand, starting with the animal-friendly husbandry of the laying hens, to the packing and sorting of the eggs, to the presentation on the market. The poultry farm Teichweiden strives for sustainable and regional animal feed. The chickens are fed guaranteed GMO-free, certified soya from Europe.

Website: www.gefluegelhofteichweiden.de

About Donau Soja

Donau Soja is a non-profit, independent and member-based organisation based in Vienna. The vision of Donau Soja is a sustainable, safe and European protein supply. To achieve this, Donau Soja supports, among other things, the sustainable production of soya in Europe and the development of regional value chains. The two labels Donau Soja / Europe Soya stand for non-GM soya products of controlled origin and quality from the Danube region and from Europe. Donau Soja unites over 300 members in 27 countries.

Website: www.donausoja.org

References

- [1] Carbon footprint and CO2 emissions respectively refer to CO2 equivalents (CO2eq), thereby including other greenhouse gases such as methane or nitrous oxide. IPCC (2013): Climate Change 2013: The Physical Science Basis: Working Group I Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, New York.
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