

New Study by BAG Güssing Highlights the Importance of European Soya and Donau Soja for CO₂ Reduction

A recent Life Cycle Assessment (LCA) conducted by the Research Institute of Organic Agriculture (FiBL) Austria for BAG Güssing demonstrates the significant CO₂ reduction potential of using European soya – and particularly Donau Soja / Europe Soya – in the production of soybean meal and oil. The study provides further evidence that switching to European and Donau Soja certified soya is a highly effective way to reduce the carbon footprint of soya products and Scope 3 emissions.

Study Results: Carbon Footprint in Soybean Processing



The study quantifies the carbon footprints of soybean meal and oil processed by BAG Güssing using (1) only European soya and (2) Donau Soja / Europe Soya.

Both calculations show outstandingly low results, especially the values with Donau Soja / Europe Soya: 0.36 kg CO₂ equivalents (CO₂e) per kg soybean meal and 0.7 kg CO₂e per kg soybean oil each corresponds to a reduction of ~ 91 % compared to the respective database values for Brazil. Compared to the European market mix, the results show a reduction of ~ 40 % for soya oil and ~ 82% for soya meal.

Carbon Footprints in Perspective

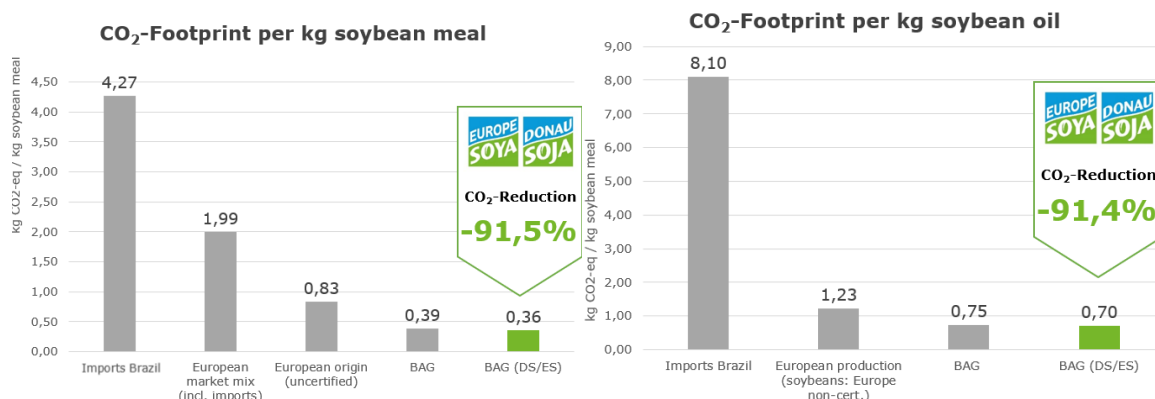


Figure 1: CO₂-Footprint comparison of soybean meal and oil. Database values based on Agrifootprint 6.3. Market mix: own calculation comprising imports & European soya.

Why Origin and Land-Use Change Matter

The European Union, most notably the feed industry, is heavily dependent on soya imports. Soya self-sufficiency rate in the EU is just 8%.

Around 40% of the soya imported into the EU comes from Brazil, primarily for use as high-protein animal feed. Much of this soya originates from the Cerrado in Brazil, where production is linked to significant CO₂ emissions due to deforestation and land conversion. Globally, converting forests or grasslands into agricultural land is a major driver of greenhouse gas emissions. Between 2005 and 2017, the EU was responsible for an

estimated 3.5 million hectares of deforestation through its imported products. Soya alone accounted for 31% of this imported deforestation.

From 2009 to 2018, the EU's imports of Brazilian soya are linked to deforestation equivalent to twice the size of Paris every year¹ (assuming 15 million tonnes of Brazilian soybean equivalents annually).

Beyond land-use change, the use of agrochemicals is another major emissions factor. Pesticide reduction and good agricultural practices, as required by Donau Soja certification, contribute to additional emission reductions. These improved practices are reflected in the low carbon footprint of Donau Soja-certified soybeans, forming the basis for life LCAs of the soya products.

Conclusion

Even with the new EU Deforestation Regulation (EUDR) in place, land-use change in the Cerrado will still be allowed, meaning imports of Brazilian soya continue to carry a significant CO₂ footprint.

Switching to European and Donau Soja certified soya plays a key role in reducing emissions for companies with soya or animal products in their supply chains. It offers a practical and effective lever for meeting climate targets and supports compliance with **CSRD** and **SBTi** requirements. Moreover, short supply chains and European soya production support a more resilient European food system and higher self-sufficiency.

About BAG Oilmill

With a capacity of around 90,000 tonnes per year, BAG Ölmühle is Austria's largest soya oil mill. Since 2011, only Non-GM soyabeans of European origin have been processed into high-quality soya extraction meal and soya oil at the site in Güssing. BAG is one of the market leaders in the European soya, and in terms of sustainability, as BAG's production is powered by 100 % renewable energy. As a member and partner of Donau Soja, a focus lies on the sourcing and processing of soyabeans with Donau Soja / Europe Soya certification.

Website: www.bagoil.at

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. Donau Soja unites over 340 members in 33 countries (status March 2025).



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.

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¹ 1.5 hectares of deforestation/conversion per 1,000 tonnes. Trase Yearbook 2020 – The State of Forest-Risk Supply Chains