

Fable or fact?

4. “Soy drink is a sustainable alternative to regular milk products.”

In the previous fable or fact we discussed whether soy drink is a healthy and complete alternative to regular milk products such as milk, yogurt and quark. The answer was ‘yes’. But, as you probably saw in the news, there is a lot of discussion about the production of soy.

WWF report

On April 14 the World Wildlife Fund released a report in which the Netherlands is in the top 5 of European countries that contributes to global deforestation.¹ A very dubious honor, because together with Germany, Italy, Spain, the United Kingdom, France, Belgium and Poland, we are responsible for eighty percent of deforestation.²

And if we look at the number of square meters of tropical area deforested per capita in the period from 2005 to 2017, the Netherlands is in first place: 18 square meters of deforestation per Dutch person, where the European average is 5 square meters of deforestation.²

But what does that have to do with soy? Well, the biggest cause for this deforestation is the rearing of livestock and the cultivation of palm oil and soy. Most soy is grown in South America and that requires a lot of space. This comes at the expense of jungle and other nature.³ Due to the import of soy, among other things, the European Union is responsible for the deforestation of 5 million hectares tropical per year.²

Direct and indirect consumption

No less than 80% of the soy shipped to Europe is destined for animal feed.¹ The Netherlands is an important exporter of meat and a lot of soy for livestock is imported to the Netherlands. As a consumer, we do not eat this soy ourselves, but we eat it indirectly through meat, dairy and eggs.⁴

¹ World Wide Fund for Nature (2021). *Stepping Up: The continuing impact of EU consumption on nature.*

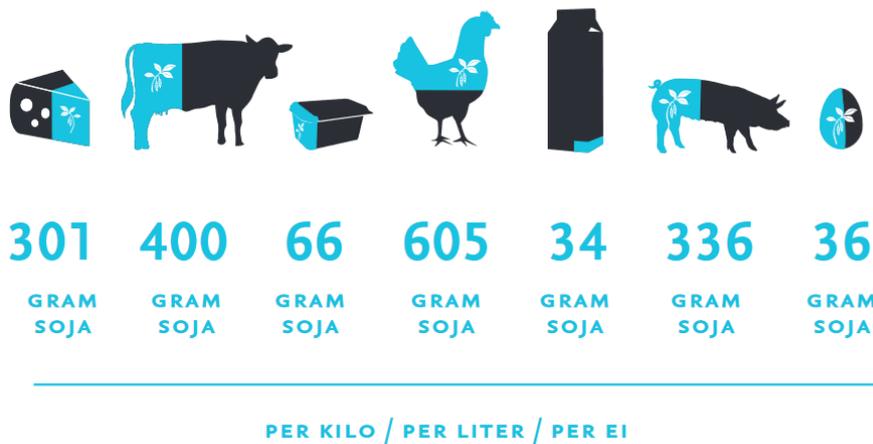
Geraadpleegd van <https://www.wwf.nl/globalassets/pdf/stepping-up-the-continuing-impact-of-eu-consumption-on-nature-worldwide.pdf>

² NOS Nieuws (2021). *WNF: Nederland is grote Europese aanjager van ontbossing.* Geraadpleegd van <https://nos.nl/artikel/2376651-wnf-nederland-is-grote-europese-aanjager-van-ontbossing.html>

³ Voedingscentrum (2021). *Soja en sojaolie.* Geraadpleegd van <https://www.voedingscentrum.nl/encyclopedie/soja.aspx>

⁴ Nederlandse Sojacoalitie (2014). *Soja Barometer 2014.* Geraadpleegd van https://www.bothends.org/uploaded_files/document/Soja_Barometer_2014_NL.pdf

SOY YOU DON'T SEE



In the figure you can see how many grams of soy are needed to produce one kilogram of cheese or meat, one litre of milk or one egg. So if you want to combat deforestation and make yourself committed to reduce soy cultivation, you will achieve the most by eating less meat and dairy.⁵ Nevertheless, we must remain honest, because one litre of soy drink requires 80 grams of peeled soybeans. And the same goes for tofu: for one kilogram of tofu, 330 grams of peeled soybeans are needed.^{6 7 8} In short, replacing all your meat and dairy with soy products is not a solution for combating deforestation either.

Environmental impact

But just looking at the amount of soybeans is too shortsighted. In order to be able to make a sound statement about the sustainability of soy drink, we also need to include greenhouse gases, land use, water use and energy consumption in this story. Soy drink has a lower environmental impact than cow's milk when it comes to greenhouse gases.³ The production of one kilogram of soy has 0,6 kg of CO₂ emission, whereas beef has 46,8 kg of CO₂. The production of beef therefore causes 98,7% more CO₂ emission than the production of soy!⁹ Soy drink also has a lower environmental impact than cow's milk in terms of land use and water use. However, the energy use to make soy drink is a bit higher than that of milk.^{3 10}

⁵ Milieu Centraal (2021). *Sojateelt: impact op bossen*. Geraadpleegd van <https://www.milieucentraal.nl/eten-en-drinken/tropische-producten/soja/>

⁶ Nederlandse Vereniging voor Veganisme (2020). *Soja*. Geraadpleegd van <https://www.veganisme.org/informatie/is-het-vegan/voedingsmiddelen/soja/>

⁷ Alpro (2021). *Sojadrinks natuur*. Geraadpleegd van <https://www.alpro.com/nl/producten/drinks/soya-natuur/sojadrink/>

⁸ Albert Heijn (2021). *AH Biologisch Tofu naturel*. Geraadpleegd van <https://www.ah.nl/producten/product/wi54905/ah-biologisch-tofu-naturel>

⁹ Duurzaam Thuis (2020). *Het verschil in CO2 uitstoot tussen de productie van soja en vlees*. Geraadpleegd van <https://www.duurzaamthuis.nl/verschil-co2-uitstoot-productie-soja-en-vlees>

¹⁰ Ercin AE, Aldaya MM, Hoekstra AY. (2012). The water footprint of soy milk and soy burger and equivalent animal products. *Ecological Indicators*, 18, 392-402. Geraadpleegd van https://waterfootprint.org/media/downloads/Ercin-et-al-2012-WaterFootprintSoy_1.pdf

Sustainable cultivation

The soy intended for soy products in the supermarket, such as meat substitutes and soy drink, is fortunately usually grown sustainably. Producers of soy products often opt for organic soy or sustainable soy.³ In 2017, the Dutch Veganism Association researched the origin of the soy for various brands of soy milk. This showed that all brands indicated that they used soy that does not come from the Amazon. The soybeans mainly came from Europe, Canada, America and sometimes from China.¹¹

This was also one of the aims of the Dutch Soy Coalition, a partnership of 16 civil society organizations that aimed to promote sustainable soy cultivation from 2003 to 2018 by, among other things, working with the criteria of the Roundtable on Responsible Soy (RTRS). The goal of the Dutch Soy Coalition was to work towards 100% sustainable soy imports by 2015, but unfortunately this goal was far from being achieved. The share of sustainable soy went up from 7% in 2011 to 34% in 2015.¹² ¹³ More recent figures are unfortunately unknown, but it is clear that there is still plenty of work to be done.

Conclusion

The global consumption of soy is on the rise. This is because the population is growing, but also because prosperity is increasing in countries such as China. This is causing an explosive growth in meat consumption and to meet that demand more and more animal feed and therefore soy is needed.⁴

Consuming less animal products and using vegetable variants such as soy drink more often makes a major contribution to lowering our diet's footprint. Do you want to know what you can do? Take the diet's footprint test of the Voedingscentrum¹⁴ or compare the carbon footprint of different foods.¹⁵ After all, a better environment starts with you!

¹¹ Nederlandse Vereniging voor Veganisme (2019). *Hipsterkoffies zijn geen bedreiging voor de Amazone. Zuivel wél*. Geraadpleegd van <https://www.veganisme.org/hipsterkoffies-zijn-geen-bedreiging-voor-de-amazone-zuivel-wel/>

¹² Nederlandse Sojacoalitie (2018). *Sojacoalitie*. Geraadpleegd van https://www.bothends.org/uploaded_files/document/Sojacoalitie.pdf

¹³ Both ENDS (2018?). *Soja: handel in ontbossing*. Geraadpleegd van <https://www.bothends.org/nl/Ons-werk/Dossiers/Soja---handel-in-ontbossing/>

¹⁴ Voedingscentrum (2021). *Voedselafdruk*. Geraadpleegd van <https://www.voedingscentrum.nl/nl/duurzaam-eten/voedselafdruk.aspx>

¹⁵ BBC (2019). *Climate change food calculator: What's your diet's carbon footprint?* Geraadpleegd van <https://www.bbc.com/news/science-environment-46459714>