



**new
roots**
vegan creamery



We care about the planet

and we know you do too

We care about sustainability and transparency. This is why we have put together - to the best of our knowledge - some facts for you. We will not say that our vegan cheese alternatives emit no CO₂. They do (like any food production does). Rather, we want to share with you what we know about the sustainability of our products. Here we go!

Cashews are a very efficient raw material

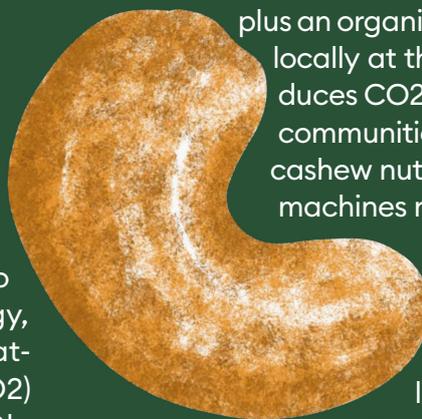
Contrary to most nuts and seeds, they contain hardly any fiber (ca. 3% to be more precise!), so we can use 100% of the cashews to produce our cheeses and have 0 waste.

Our cashews grows in the wild & require no extra water

The cashew trees we source from grow naturally in tropical areas (no deforestation!) with abundant rain- fall and sunshine. Not only do they need no extra care or energy, they also absorb CO₂ from the atmosphere and release oxygen (O₂) in exchange. Nature at its best! Oh, and they require no chemical fertilizers or pesticides and don't pollute air, water or land.

Our nuts are grown by smallscale organic farmers and processed locally

Transforming cashews into edible nuts is a labour-intensive task. So when talking about sustainability, it's crucial that the people in the agricultural process work in a safe and healthy environment and are treated and paid fairly. That's why we buy our cashew nuts (through our partner, who is responsible for the harvesting, processing and quality control of the raw material) from small-scale independent farmers in Viet- nam who are paid above average wage, plus an organic premium. Also, the nuts are processed locally at the heart of the sourcing area which reduces CO₂ emissions and creates extra jobs in the communities. The tedious task of transforming raw cashew nuts into edible cashew kernels is done by machines rather than manually.



Regular audits are performed to ensure that the working environment is according to international labor laws and SMETA standards for Ethical Trade.² In addition, social initiatives have been implemented such as the payment of health insurance and proper sanitation for the schools in the sourcing communities.³ For our yogurts, we use cashew nuts from Burkina Faso which are fair trade certified.⁴

The overall environmental footprint of our cashew cheese is lower than that of cow's milk

Hold on... really? Yes, really. Animal-based products in general emit more CO₂ than plant-based products, since using animals as middle-men and growing crops to feed them is much more resource intensive (and frankly, inefficient) than growing and eating plants directly. Makes sense, right?

Cows need water (a looooot of water: at least 630 liters for each liter of milk⁷!) and feed (+ in industrial farming, very often also antibiotics and hormones). Crops require land, land requires water and seeds, seeds require fertilizers and pesticides. And there is the farming equipment, energy and fuel, etc. to make it all happen. Most of all and in addition to waste, cows are ruminants and emit tons of methane which (as a CO₂-equivalent) pollutes the air. In fact, if cows were a country, they (well, their farts...) would rank third in terms of greenhouse gas emissions, after China and the USA, before India!⁸ All of this is necessary to produce cow's milk to turn it into animal-based cheese. And guess what: 10 liters of milk are necessary to produce 1 kg of soft cheese⁹ (to compare to the plant-based version: remember the 0.5 kg cashews?)!

How about some quick math? 1 kg of cow camembert requires 10 liters of milk and each liter of milk requires 630 liters of water to produce. That's a whopping 6300 liters (32 bathtubs!) of water for each kg of cheese.

To sum it all up, we believe it is safe to say that producing a cashew-based soft cheese alternative is much more sustainable and efficient than producing an animal-based one. How much more? Well, we do have a final number for you to take away based on the best research data we have up to now: the relation is likely to be between 1:7 and 1:10¹⁰ (if you have read this far, we won't need to tell you that the 1 stands for cashew-based cheese, right?)

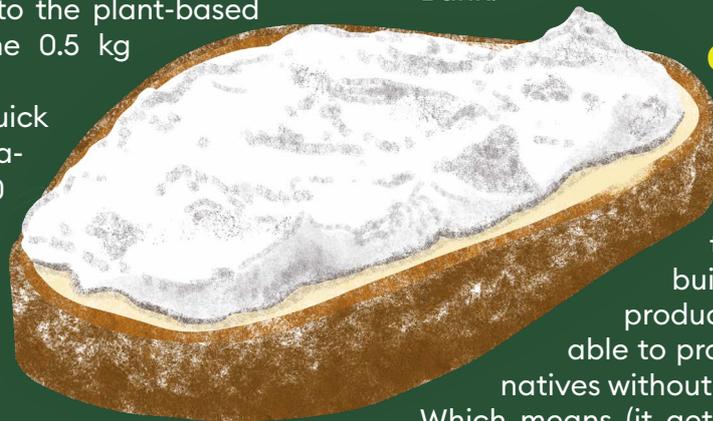
Our cashews travel by ship (rather than air)

Ships emit 50x less CO₂ than air transportation, making our cashews much friendlier to the environment.⁵ Overall, transportation contributes to less than 5% of the CO₂ balance of our cashew cheese.⁶

We are dedicated to finding more sustainable solutions for our packaging

All of this being said, there are still areas of improvement in terms of the sustainability of our products. One of them is the packaging. We are happy to say that the cardboard bands in which our cheese cups are inserted are either made from 100% plant waste and CO₂-neutral¹¹ or made of recyclable cardboard. However, we are still using plastic cups for our packaging, because so far there is no possibility to store our cheese in a 100% biodegradable packaging for shelf-life and quality related reasons (both you and us want to minimise food waste, right?). We are carefully choosing the best possible option on the market considering both recyclability and food safety and will continue to seek more eco-friendly solutions, seeing perfection as a journey rather than a destination.

On this journey, we are glad to have suppliers who share our commitment to sustainability and are helping to stop ocean plastic by supporting the ethical recycling ecosystems set up by the Plastic Bank.¹²



Our new production facility operate fossil fuel free

One major milestone on this journey has been the building of our new innovative production facility, where we are able to produce our vegan dairy alternatives without the use of fossil fuels!

Which means (it gets a bit technical now, bear with us!), we don't burn oil, gas or other fossil fuels to provide the energy with which we make our products. So you might ask: where do we get the energy from in the first place? From hydro power! And we also store the waste heat from the cooling rooms in a large storage facility and recover energy from production. This allows us to cover 100% of our heating requirements. In addition, we cool down our products with cold groundwater, and thus save a lot of electricity. Ask our engineers if you want to know more!

¹ www.naehrwertdaten.ch/de/search/#/food/257956 | ² www.sedex.com/our-services/smeta-audit | ³ Tradin Organic Agriculture B.V.: The Story Behind Our Organic Cashews (2020) | ⁴ www.gebana.com | ⁵ Cristea, A. et al.: Trade and the greenhouse gas emissions from international freight transport, Journal of Environmental Economics and Management 65 (2013) 153-173 | ⁶ Beyli, D. et al.: E2 Life Cycle Assessment - Organic Swiss soft cheese imitation from cashew nut kernels. Bern University of Applied Sciences, School of Agricultural, Forest and Food Sciences HAFI Food, | Nutrition ⁷ Poore, J. & Nemecek, T. (2018): Reducing food's environmental impacts through producers and consumers. Science, 360, p.987-992 | ⁸ See also "Milking the Planet. How dairy is heating up the planet and hollowing rural communities", Institute for Agriculture and Trade Policy (15.06.2020), <https://www.iatp.org/milking-planet>. | ⁹ Bystricky, M. et al. (2014): Ökobilanz ausgewählter Schweizer Landwirtschaftsprodukte im Vergleich zum Import, Agroscope Science Nr. 2 / April 2014 | ¹⁰ Beyli, D. et al.: E2 Life Cycle Assessment - Organic Swiss soft cheese imitation from cashew nut kernels. Bern University of Applied Sciences, School of Agricultural, Forest and Food Sciences HAFI Food, Nutrition | ¹¹ <https://paperwise.eu/de/umweltnutzen> | ¹² <https://plasticbank.com/client/greiner-packaging/>