

Week 2: Diet

Infomaterial for the vegan/vegetarian week

The Challenge:

Change your diet for a week and become a:

- a. vegetarian: Vegetarians eat only products from living animals such as milk, eggs, honey. They forgo meat, fish or sea food.
- b. vegan: Vegans forgo all food (and in general products) of animal origin (meat, fish, milk, egg, honey, gelatine, etc.)

Take a moment and consider, depending on your regular diet, what you want to try out but also what seems to be possible to implement in your daily life. You should not only cook and eat vegan/vegetarian at home but also at work/university/school, when going out for dinner or meeting up with friends for a meal.

Why vegan/vegetarian?

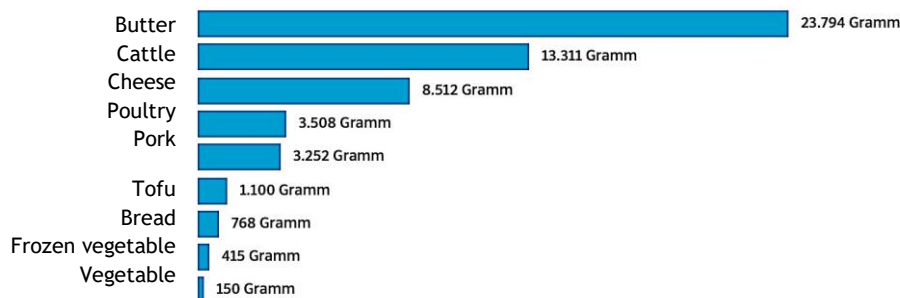
The amount of people living a vegan or vegetarian lifestyle has increased rapidly within the last years. Reasons for that vary between individuals. For some animal welfare is the main reason, for others financial or health factors are predominant. Environmental protection is a strong motive too.

But why? How far is it beneficial to live a mostly or solely plant-based life? It is very likely that the human caused increase of greenhouse gases such as carbon dioxide, nitrous oxide or methane in the atmosphere is responsible for global warming. Thereby energy, industry, traffic and agriculture are important sources of emission. Especially agriculture is often underestimated, factory farming alone is already responsible for 15% of all climate emissions.



Next to carbon dioxide, which is released in the course of cultivation, transport, storage, processing and preparation, the even more dangerous greenhouse gases methane and nitrous oxide play a big part. Methane is released by the animal itself but also through manure and fertiliser, as is nitrous oxide. If you compare plant-based foods with animal-based ones, it appears that they set free way less greenhouse gases. This is especially due to cattle and sheep, which play a great part in agriculture emission through their methane release. Moreover, for the supply of the animals, additional farmland is needed for livestock fields (around 70 % of diet-related land consumption), whereby additional greenhouse gases are released through change of land use and swell. Soybean cultivation has increased about tenfold within the last fifty years, whereby among other things climate-damaging logging of rainforest took place. The trees are not able to bind carbon

CO2-emissions per kilogramm



Quelle: Ökoinstitut 2008 Rohdaten herunterladen

dioxide any longer, instead they release it in the process of combustion and rotting. If you think the problem is mainly caused by the increase

of soybean products (soy milk, tofu, etc.) you are wrong, because 80 % of soybean cultivation is used for animal food (and is therefore no longer available for human nutrition!).

But there is another problem aroused through soy beans: a very large consumption of water. The cultivation and the animals themselves cause a huge consumption of water, which is problematic in times of general water scarcity. If we take a look at cattle as an example, it appears that for producing one kilogramme cattle, 15.500 litres of water are used. It should also be considered that water is not only consumed but that groundwater is contaminated through the use of pesticides and fertiliser, which affects the water quality.



All in all, one can say that obviously the origin of plants (avoiding high emissions through transport), water balance (avocado as a negative example) and their cultivation conditions (pesticides, fertiliser, used amount of land, etc.) should be taken into account. However, animal products, especially (cattle) meat, have a high share in greenhouse gas emission and water consumption, whereby a permanent reduction or at best complete waiver of those kind of food would be an important step towards climate protection. In general products of ecological origin have a better climate balance than the same conventionally produced products (between 5 and 25 % depending on the food item).

Diet	Carbon dioxide wastage (including equivalents) in kilogramme*	Water wastage in cubic metres*
Vegan	940	710
Vegetarian	1160	1060
Meat eaters	1760	1580

Source: *UBA CO₂ calculator ** Water Footprint Network

Background information on our bonus challenges:

a. Bio label for organic products:

Bio labels mark products which should at least fulfill the legally regulated standards (EU-label, German Bio-label) for ecological production. This includes that during production chemical-synthetical pesticides and fertiliser should be avoided, genetic technology is forbidden, the use of additives should be as small as possible and animal-friendly husbandry with outdoor space and a minimum space per animal is guaranteed. Producers who meet those standards are allowed to carry the Bio label and are controlled yearly. However, there are different Bio-labels with different focuses and standards. There are Bio-associations such as the German Naturland, Bioland or Demeter, who not only meet the legally regulated European standards but follow even more strictly terms. Different trading groups offer their own bio products. When buying those products, one should watch out for the European Bio-label or German Bio-label. Otherwise ecological standards might not be achieved and the product is therefore not correctly labelled.



b. Fairtrade-label:

The Fairtrade label marks products which are cultivated and traded under fair conditions. Fundament of the label are established standards who take social, ecological and economic aspects into account. Small farmers, democratic associations, regulated working conditions and long-termed collaborations are supported while exploitative child labour and discrimination are forbidden. Concerning ecological aspects, environmental protection is enhanced through supportment of biological cultivation and prohibiton of health-damaging pesticides and genetically modified seeds. Traders and Producers are bound to defined payment of minimum Fairtrade salaries and prices. Also, they have to show transparent conduct regarding trading relations, product and money flow.



**This might be interesting for prospective non-vegans/-vegetarians in Germany:
The „Tierwohlsiegel“**

The „Tierwohlsiegel“ (translated: animal welfare label) is a German label which can be found in several food markets since April 2019. It is a voluntary quality label of the action group „Tierwohl“, which is supposed to help the consumer as an orientation when shopping poultry or pic meat. It is divided in four different stages. The lowest one represents the legally regulated minimum standard. Criteria



are warranty of a healthy stable conditions and drinking water for the animals, occupation, more space per animal and shorter transportation times. The participating animal holders are controlled twice a year. To compensate the additional expenses, the animal holders are financially supported.



What else is good to know?

For health reasons, it can be attractive to forgo meat or animal products completely. Still it is important to watch out for a lack of nutrients which can be caused through the change of the diet. Therefore, it is appropriate to talk to your doctor and get informed how proteins, vitamins, minerals, etc., which are usually ingested through meat or animal products, can be replaced. Often reduced ferric is a problem, when quitting eating meat. Additionally, a lack of Vitamin B₁₂ is a common problem of a vegan diet. It can be supplemented through Vitamin-B₁₂-preparations. Moreover, the *Deutsche Gesellschaft für Ernährung* (German association for diet) discourages pregnant and nursing mothers, infants, children and teenager to eat strictly vegan. During our one-week-challenge, there is no need to worry about a potential lack of minerals.



References:

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