



Pfeifer & Langen



Alternative Sweeteners

Fact Sheet

Can they compete with Beet Sugar?



Examples of alternative sweeteners include:

- Agave syrup
- Date syrup
- Coconut sugar
- Rice syrup
- Sugar alcohols, such as birch sugar (xylitol) or erythritol

What are alternative sweeteners?

Alternative sweeteners are sweet-tasting foods, partly food additives, meant to replace traditional sugar. Consumers often consider them the healthier choice. But is that really the case?

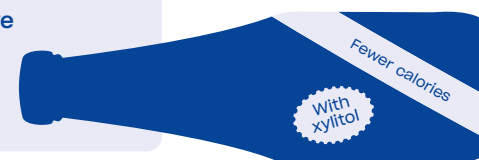
How are alternative sweeteners labeled?⁸

Products with sugar alternatives are often marketed as a healthier option containing less sugar. The example of ketchup makes this misconception clear:



Ketchup with agave syrup contains nearly the same amount of sugar and calories as comparable products with beet sugar.

Ketchup with xylitol contains the additive xylitol with the E-number 967 and the warning: "excessive consumption may produce laxative effects."



Sugar is still sugar: calories in comparison^{6,7}



| Sweetener | Kcal/100 g dry matter |
|-----------------------|-----------------------|
| Beet sugar | 400 |
| Agave syrup | 392 |
| Coconut sugar | 395 |
| Date syrup | 394 |
| Rice syrup | 392 |
| Birch sugar (xylitol) | 240 |
| Erythritol | 20 |

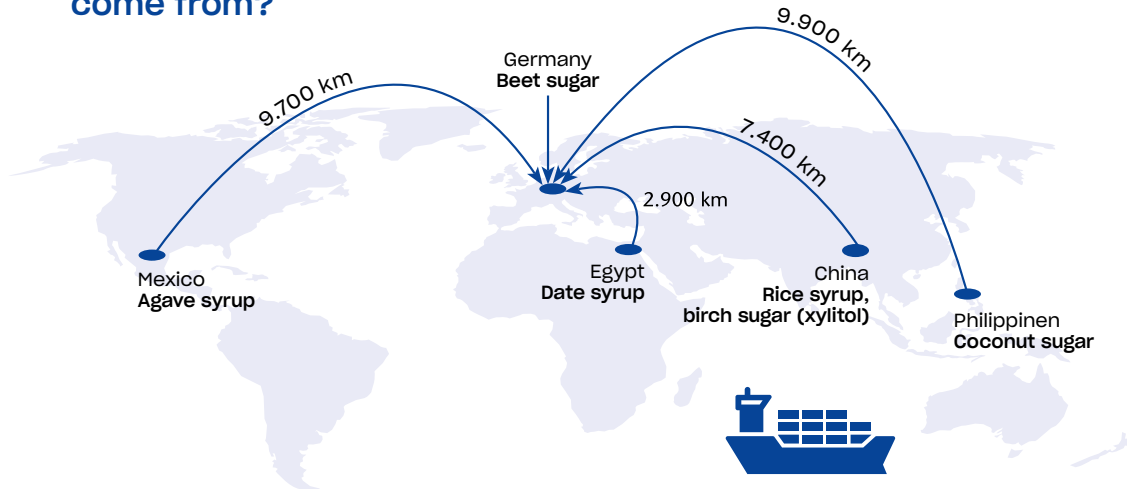
With the exception of sugar alcohols, the **energy** in these alternative sweeteners comes from **carbohydrates or sugars**. Thus, the calorie content hardly differs.

Are alternative sweeteners healthier?



Alternatives are often portrayed as the better option due to claims that they contain vitamins and minerals. However, in typical serving quantities, they hardly contribute significantly to nutrient intake. In fact, they provide less than one percent of the daily requirement for vitamins and minerals per serving. Additionally, these alternatives are metabolized by the body in the same way as conventional sugar, as they ultimately also consist of sugar. New studies also suggest potential health risks associated with erythritol and xylitol for certain sensitive populations.^{1,2,3,4,5}

Where do alternative sweeteners come from?



Alternative sweeteners often travel long distances, resulting in a poorer carbon and environmental footprint. Our beet sugar, in contrast, comes from Germany and Poland.²

Are alternative sweeteners socially and environmentally sustainable?^{11,12,13,14}

- X Often inadequate social standards and unfair labor conditions
- X Low agricultural standards
- X Frequently low wages (unless Fairtrade certified)
- X Dates and rice: high water consumption during cultivation



Sugar alcohols: natural products or chemically produced?

Birch sugar (xylitol) and erythritol are not true sugars but sugar alcohols and therefore classified as **additives with an E-number**. Their use in food is strictly regulated by law, with defined maximum limits. Sugar alcohols can also have a laxative effect. Contrary to consumer expectations, sugar alcohols are **produced through highly complex chemical processes**. This has little to do with nature anymore.^{2,9,10}



Conclusion: beet sugar vs. alternative sweeteners

Contrary to consumer expectations, alternative sweeteners offer no clear health advantages and fall short of beet sugar in both ecological and social terms. **Alternative sweeteners:**

- X contain no significant amounts of vitamins or minerals.
- X have calorie contents similar to beet sugar.
- X do not necessarily come from natural sources.
- X must be imported over long distances.
- X are often produced under poor social and environmental conditions.

Sources: ¹ DGE Presseinformation: DGE betont Bedeutung wissenschaftlich fundierter Ernährungsempfehlungen; 01/2020. ² aid Infodienst: Zucker, Sirupe, Honig, Zuckeraustauschstoffe und Süßstoffe; 2014. ³ <https://www.apothekenumschau.de/gesund-bleiben/ernaehrung/wie-gesund-ist-kokosbluetenzucker-990399.html#gibt-es-gesundheitsvorteile>; 29.08.2023. ⁴ Witkowski et al.; 2024; <https://doi.org/10.1093/eurheartj/ehae244>. ⁵ Witkowski et al.; 2023; DOI: 10.1038/s41591-023-02223-9. ⁶ www.alnatura.de/de-de/produkte/; 17.05.2022. ⁷ www.xucker.de; 17.05.2022. ⁸ Lebensmittelinformationsverordnung (EU) Nr. 1169/2011. ⁹ Öko-Test Magazin: Zucker bleibt Zucker; 04/2021. ¹⁰ <https://www.verbraucherzentrale.de/wissen/lebensmittel/schlankheitsmittel-und-diaeten/kokosblueten-birkenzucker-stevia-co-alternative-suessmacher-im-trend-13370>; 18.09.2024. ¹¹ <https://utopia.de/ratgeber/wie-reisanbaufunktioniert-und-seine-folgen-fuer-das-klima/>; 12.05.2022. ¹² Dr. Bäuerlein, Brigitte: Der Zuckerkompass – So gefährlich ist Zucker wirklich; 2022; ¹³ www.quarks.de/gesundheit/ernaehrung/darum-ist-agavendicksaft-gar-nicht-so-gut/; 12.05.2022

