# alimentarium academy

5. Ecology and food economy5.3 Cycle of manufactured goods

5.3.1

## Food miles

#### FOOD MILES

Food has always travelled for sale in regions or countries of varying distance from its place of production. In the past few decades, trade agreements and the improved performance of means of transport have led to significant expansion of international food trade.

The term 'food miles' refers to the distance a product has travelled between its place of production and the consumer, including the detours via processing industries and supermarkets or any other point of sale.





This concept was initiated to highlight the fact that transporting food has environmental and economic consequences. Current means of transport emit large amounts of carbon dioxide, CO<sub>2</sub>, into the atmosphere. These emissions have a significant impact on air quality and contribute to global warming.

The greater the distance food travels, the more energy the transportation consumes and the more CO<sub>2</sub> it will release, thus the greater the pollution.

Proponents of the concept of food mileage emphasise the significance of the distance between the place of production and the place of consumption. They therefore recommend purchasing food produced as near as possible to the place of consumption.

However, will this solution suffice to reduce the ecological impact of food production?

## THE LIMITATIONS OF THE CONCEPT OF FOOD MILES

This purely distance-based approach is relatively reductive, since the exact environmental impact depends on the means of transport used, which in turn depends on a number of factors, such as cost, route and distance, and the nature of the product.

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In terms of the amount of CO<sub>2</sub> emitted per mile per tonne of food, shipping is the least polluting means of transport. It is also the least expensive. However, it is obviously not suitable for all itineraries.



Rail and road haulage follow next in the ranking. These means of transport are privileged on a national or continental scale, with rail being used mainly to cover long distances.

Finally, air freight has the greatest environmental impact per tonne of cargo. At the end of the chain, consumers often use their cars to do their shopping, which significantly increases the environmental impact of transportation.



To give an example, transporting one tonne of tomatoes by lorry from Spain to England generates the same amount of CO<sub>2</sub> as shipping it from Mexico.

### OTHER ENVIRONMENTAL FACTORS

The concept of food miles is also limited in the sense that it only addresses the question of distance and transportation. Transit generates only part of the energy expenditure and greenhouse gas emissions. The methods of cultivation and stockbreeding, product processing and preservation must also be taken into account.

If we take the example of tomatoes again, growing them in heated greenhouses, as is the case in the Netherlands or off-season in Switzerland, can greatly increase

energy consumption and CO<sub>2</sub> emissions. Thus, tomatoes produced locally, but under heated greenhouses, have a much higher environmental impact than imported tomatoes produced at natural ambient temperatures.



We can already see that food miles are only an initial approximation of a product's environmental impact.

When we eat, we usually consume products that combine several raw materials and ingredients. Before an end product arrives on our plates, the various stages of its production generate both financial costs and an environmental impact.