

# A Trip Around the World with Nutella

Where in the world does your food come from?

A few years ago, a map—created by the OECD—made the rounds on the Internet, showing the sites of Nutella’s headquarters, sales offices, factories, and sources of all the popular chocolate hazelnut spread’s ingredients. The map was quite impressive; Nutella had quite literally spread itself to all ends of the earth. The advancements of globalization, and improvements in technology and transportation in recent decades, have made it possible for the food on your table to come from practically anywhere. But it also got me thinking: if the food I eat can come from almost anywhere on this earth, how far is it really travelling to get to me? And what kind of impact does this vast distance have on the planet?

Figure 6. The Nutella® global value chain



Source: Ferrero, Sourcemap and various on-line sources.

The OECD map of Nutella ingredient sourcing.

Source: Quartz.

In the 1990s, a British professor named Tim Lang coined the term "food miles," a process that involves determining the distance a food must travel to get from field to fork. Lang's food miles were meant not only to quantify the distance any food travels in its lifetime, but also to determine the environmental costs of those huge distances travelled as a part of the massive global food industry. I decided to conduct a little social experiment and apply Lang's premise of food miles to see how far all of Nutella's ingredients travel to get to my table. To do this, I relied on the information

provided in the OECD map, as well as Nutella's website, which is commendably transparent, and some supplemental research on the origins of each ingredient.

The OECD map lists nine Nutella factories around the world, on nearly every continent; problem is, it is not indicated on Nutella's website—or elsewhere—what is being processed or refined in each factory. So instead of arriving at a concrete number, rather I arrived at a range of distances. For each ingredient, I used Google Maps to map out the distance to both the closest and furthest factories, and then the distance to my table in Toronto, Canada. This way, I could determine the shortest and longest possible distance these ingredients have travelled, and presumably the actual distance travelled (we'll call it "d") falls somewhere within this range.

<b>Nutrition Facts</b>	<b>Amount/Serving</b>		<b>%DV*</b>	
	<b>Amount/Serving</b>	<b>%DV*</b>	<b>Amount/Serving</b>	<b>%DV*</b>
Serv Size 2 tbsp.(37g) Servings about 10	<b>Total Fat</b> 11g	<b>17%</b>	<b>Total Carb.</b> 22g	<b>7%</b>
<b>Calories</b> 200 Fat Cal 100	Sat. Fat 3.5g	<b>18%</b>	Fiber 1g	<b>6%</b>
	<i>Trans Fat</i> 0g		Sugars 21g	
	<b>Cholest.</b> 0mg	<b>0%</b>	<b>Protein</b> 3g	
	<b>Sodium</b> 15mg	<b>1%</b>		
*Percent Daily Values (DV) are based on a 2,000 calorie diet.	Vitamin A 0% • Vitamin C 0% • Calcium 4% • Iron 4%			

**INGREDIENTS:** SUGAR, PALM OIL, HAZELNUTS, COCOA, SKIM MILK, REDUCED MINERALS WHEY (MILK), LECITHIN AS EMULSIFIER (SOY), VANILLIN: AN ARTIFICIAL FLAVOR.

Nutella's nutrition facts and ingredients.

Source: Technobyte.

## Sugar

The ingredient of which Nutella contains the most is sugar. The sugar used in Nutella is 75% beet sugar and 25% refined cane sugar. The beet sugar

comes from France, where it is grown predominantly in Hauts de France and Grand Est in the country's north and northeast. The refined cane sugar comes from Brazil, from Pernambuco in the northeast and Sao Vicente in the southeast, where sugar was first brought to the country by Spanish and Portuguese colonial authorities.

France > to closest factory (Viller Ecalles, France) - 222KM > to Toronto - 5,880KM

France > to furthest factory (Lithgow, Australia) - 16,791KM > to Toronto - 15,648KM

**6,102KM > d > 32,439KM**

Brazil > to closest factory (Pocas de Caldas, Brazil) - 1,773KM > to Toronto - 8,019KM

Brazil > to furthest factory (Lithgow, Australia) - 15,269KM > to Toronto - 15,648KM

**9,792KM > d > 30,917KM**

## **Palm Oil**

Palm oil comes from pressing the pulp of the reddish-coloured fruit of the oil palm tree, which typically grows in and around the Equator. It is worth noting that some iterations of Nutella contain modified palm oil; the label required when an oil has been hydrogenated. This process has drawn controversy, due to both health concerns and issues of environmental sustainability. Nutella primarily sources its palm oil from Malaysia, on the island of Borneo.

Malaysia > to closest factory (Lithgow, Australia) - 5,550KM > to

Toronto - 15,648KM

Malaysia &gt; to furthest factory (Los Cardales, Argentina) - 16,438KM &gt;  
to Toronto - 8,924KM

**21,198KM &gt; d &gt; 25,362KM**

## Hazelnuts

Though Nutella's website claims its hazelnuts come from both Italy and Turkey, the bulk of these hazelnuts are sourced from Turkey, in a town called Ordu. Located on the shores of the Black Sea, this town of 200,000 is the world's largest hazelnut producer, growing one-quarter of the world's supply.

Turkey &gt; to closest factory (Sant Angelo, Italy) - 2,318KM &gt; to Toronto - 6,673KM

Turkey &gt; to furthest factory (Lithgow, Australia) - 14,162KM &gt; to Toronto - 15,648KM

**8,991KM &gt; d &gt; 29,810KM**

## Cocoa

Cocoa is the ingredient that provides Nutella with its signature chocolate-y taste. It is sourced from West Africa, namely Nigeria in the south and southwest of the country. Nutella's website boasts that it is both sustainably sourced, and that the cocoa beans are processed with the greatest of care and attention to detail.

Nigeria &gt; to closest factory (Sant Angelo, Italy) - 4,247KM &gt; to Toronto - 6,673KM

Nigeria &gt; to furthest factory (Lithgow, Australia) - 15,508KM &gt; to Toronto - 15,648KM

**10,920KM &gt; d &gt; 31,156KM**

## Lecithin

Lecithin (pronounced less-e-thin) is a natural emulsifier, meaning that its purpose is to make the mixture of all of Nutella's other ingredients smoother. Lecithin is predominantly extracted from soy beans, although the Nutella website claims it also extracts some of its lecithin from sunflower seeds. The Lecithin used in Nutella is sourced from Brazil and Italy, but most predominantly, India.

India &gt; to closest factory (Vladimir, Russia) - 4,827KM &gt; to Toronto - 7,581KM

India &gt; to furthest factory (Los Cardales, Argentina) - 15,745KM &gt; to Toronto - 8,924KM

**12,408KM &gt; d &gt; 24,669KM**

## Vanillin

If you're eating a food that is vanilla-flavoured, it most likely contains vanillin, an ingredient that comprises 95% of vanilla-flavoured foods. It was first discovered in 1858 in France, when a chemist was able to isolate the ingredient vanillin in the vanilla bean. Today, it is more time- and cost-efficient to make synthetic vanillin in labs. The vanillin used in Nutella is sourced from Lyon, France.

France &gt; to closest factory (Viller Ecalles, France) - 512KM &gt; to

Toronto - 5,880KM

France &gt; to furthest factory (Lithgow, Australia) - 16,798KM &gt; to Toronto - 15,648KM

**6,392KM &gt; d &gt; 32,446KM**

Now for the overall range of distance travelled by Nutella ingredients

**75,803KM &gt; d &gt; 206,799KM**

This means that the ingredients contained in Nutella travel somewhere between 75,803 and 206,799 kilometres from their original sources, to factories where they are processed, to finally reach me in Toronto.

These numbers are staggering, but they're probably not entirely accurate. You see, this is an amateur experiment, conducted using the information immediately available to me; my experiment has a number of barriers and shortcomings, due to a variety of factors. Firstly, this range is likely a conservative estimation. All of the figures I have calculated are direct routes, and do not account for transport delays, detours, or the entire process of sending products to market, before they get to the table or kitchen cupboard. As well, my calculations do not account for one of Nutella's key ingredients, milk, in the form of a skim milk powder or whey isolate. There was little information on the Internet about where these ingredients are sourced from, and none about where Nutella gets theirs.



Nutella in all its chocolate-y, hazelnutty glory.

Source: Nutella.

The truth is, there's no way to know for sure precisely how far food travels before it arrives to the consumer, just that the distance travelled is huge. Is it, however, safe to say that your Nutella is probably better travelled than you. If this doesn't bother you, you might be forgetting to consider the environmental impacts this process has. While it's great that we can all enjoy Nutella, regardless of where we are on this planet, the extensive distances covered to produce this product, and the accompanying environmental consequences, are seriously concerning and unsustainable over the long term. Food miles tend to be rather simplistic, in that they don't account for the fuel, water consumption, and emissions associated with producing and transporting food products like Nutella. You can try to buy more localized chocolate hazelnut spreads, or even attempt to make your own, but if you really want the real thing, it's up to you to decide if the distance is worth it.