

how much water do you eat?



Wonderwater
Café London




wonderwater.fi

WONDERWATER AT LEILA'S

Wonderwater Café is a pop-up event designed to raise awareness of the water footprint and make us think about the impact of what we eat on local and global water resources. Agriculture is by far the largest slice of global water consumption, so the most effective way to enhance the sustainability of our water footprint is through our choice of food and drink. The Wonderwater menu shows the breakdown of the water footprint of dishes revealing how water is used in food production. It's not necessarily about the size of the water footprint but looking behind the figures to understand where water comes from and whose water we are using for what.

Does meat or grain, milk, fruit, chocolate or coffee have its water footprint in a region where water is scarce. Is it draining resources from local communities? Is the management of the local water resource sound and equitable? Armed with the right information we can choose food that has a relatively low water footprint or that has its footprint in a region of the world that doesn't have high water scarcity. In Britain of the 4645 litres of water each person consumes daily over half is used for food and over 60% of this water comes from abroad. This means that food consumed in Britain can have major impact in water scarce regions elsewhere in the world.

What is the water footprint?

The water footprint is an increasingly important tool for understanding our water consumption. A country's water footprint is the volume of water used to produce goods and services consumed by the inhabitants of a country, including imported goods. We use large amounts of domestic water for washing, drinking and cooking, but considerably more water for producing food, paper, cotton and almost every other physical product we consume. In Britain the daily domestic water use per person is around 150 litres, while the total daily water footprint, including water used in the production of our food and products consumed, amounts to 4645 litres per person and almost half of this water comes from abroad. Agriculture accounts for over 72% of the British water footprint, so diet is by far the biggest slice of an individual's footprint.

The water footprint of an item is made up of calculations of rain and irrigated water ('green' and 'blue' water) used to produce it and the water required to clear the pollution created during the production process ('grey water'). The water footprint of the dishes and drinks in Leila's café are a sum of the water footprint of the various ingredients. For the calculations, national and regional data of water footprint for crops and animal products from the Water Footprint Network have been used. Visit their website for further information and reading: www.waterfootprint.org

Is a high water footprint always bad?

It isn't that simple; a small water footprint is not necessarily better. What matters most in any discussion about water is how the numbers relate to impact. A big water footprint is not necessarily harmful, if the product originates from a water abundant region or from a region with sound and equitable water management in place. To understand the global flows of water in food production take a glass of orange juice. It takes a surprisingly large amount of water to produce orange juice – as much as 200 litres of water is used to produce a standard 200 ml glass – and much of the orange juice drunk in the UK is made from oranges grown in countries where water shortages occur. So where you leave your footprint and how water management is taken care of matters.

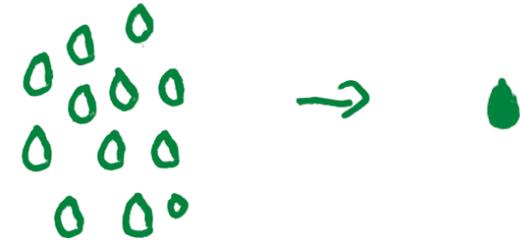
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PORRIDGE WITH PRUNES & MOLASSES

Ingredients & Country of origin:



Water footprint:



60% of the water footprint is:
Milk & oats from the **UK**

39%
Prunes from **France**

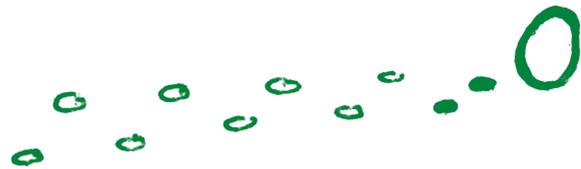
3%
Molasses from **Portugal**

RAINWATER

It might seem astonishing that it takes 79.3L of water to produce a portion of dried prunes, but French prunes are mostly rain fed with very little irrigation or 'blue' water so there is little effect on local water resources.

SLUICING THE COWSHED

Milk's water footprint includes grey water – the water required to clear the pollution associated with milk production. It takes approximately 11.5 litres of grey water to produce one litre of milk. That's a lot to do with sluicing the cowshed.



GREY EGGS

Eggs, like other animal products, have a substantial grey water footprint. 14% in this case.

EGGS FRIED WITH SAGE

Ingredients & Country of origin:



59% of the water footprint is:
Olive oil from **Spain**

36%
Eggs, bread & sage from the **UK**

5%
Other ingredients

Water footprint:

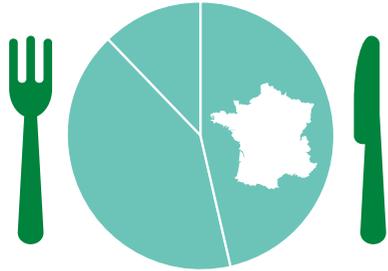


THIRSTY OLIVES

Of the water used to produce this Spanish olive oil, approximately 20% is blue (irrigated) water. In dry countries like Spain, excessive irrigation may lead to water shortages.

SERRANO HAM, COMTÉ & CORNICHON SANDWICH

Ingredients & Country of origin:



Water footprint:



46% of the water footprint is:
Comté cheese & butter from **France**

41%
Serrano ham from **Spain**

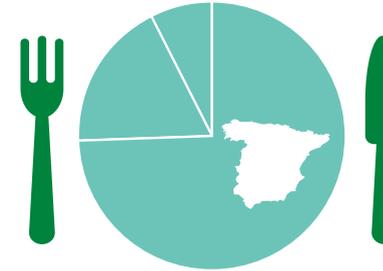
12%
Bread from **UK**

HOW MUCH WATER DO ANIMALS EAT?

No surprise that meat and dairy products tend to have a higher water footprint than vegetables, this is mostly down to the large quantities of water needed to produce the cereal animals eat. In general, 98% of the water footprint of an animal product is water for growing the animal feed. However Iberico pigs used to produce this Serrano ham, feed on acorns from grazing lands and tend to rely less on cultivated animal feed.

CAVOLO NERO AND BEAN SOUP

Ingredients & Country of origin:



Water footprint:



70% of the water footprint is:
Olive oil from **Spain**

17%
Cavolo nero, onion, celery & parsley from **UK**

7%
Tomatoes & beans from **Italy**

WHOSE WATER ARE WE EATING?

In the UK, we rely on many food products from abroad such as the tomatoes, beans and garlic in this dish. Our import-reliant lifestyles mean that about 60% of the national water footprint is made up of water used in other countries and almost half is water for agricultural products. So thinking about the impact of our food on local water resources really does matter.

FARRO SALAD WITH SQUASH AND FETA

Ingredients & Country of origin:



Water footprint:



56% of the water footprint is:
Olive oil & vinegar from **Spain**

23%
Farro & lemon from **Italy**

19%
Feta, squash & herbs from **UK**

MEAT OR VEG?

A vegetarian diet consumes about 2,600 litres of water a day, while a red meat diet consumes about 5,000 litres.

SMOKED MACKEREL PÂTÉ

Ingredients & Country of origin:



Water footprint:



69% of the water footprint is:
Olive oil & vinegar from **Spain**

23%
Bread & crème fraîche from **UK**

6%
Pepper from **India**

0%
Mackerel

WHAT'S THE WATER FOOTPRINT OF FISH?

The jury is still out on how we calculate the water footprint of fish and seafood. Mackerel caught in British seas is considered to have no water footprint while farmed fish may consume cultivated feed, and therefore has some water footprint.

DAMSON COMPOTE

Ingredients & Country of origin:



Water footprint:



82% of the water footprint is:
Vanilla beans from **Madagascar**

12%
Cane sugar from **Brazil**

6%
Damson from **UK**

RAIN OR IRRIGATION

This is the dish with the highest water footprint per portion on the menu. Although small in quantity, the vanilla beans from Madagascar account for most of this. Approximately 37% of the water required for growing vanilla beans in Madagascar is from irrigation.

BROWNIE

Ingredients & Country of origin:



Water footprint:



SIZE MAY NOT MATTER

A small water footprint isn't necessarily better: we need to ask where the water comes from and if it is used sustainably.

91% of the water footprint is:
Chocolate & cacao powder,
global average

8%
Butter from the **UK**

1%
Flour from **France**

RAINING CHOCOLATE

On average, it takes about 24,000 litres of water to produce a kilo of chocolate, though this is mostly rained rather than irrigated.

ESPRESSO

blend from **Brazil, Kenya** and **Guatemala**

Water footprint:



MILKY COFFEE

from **Brazil, Kenya, Guatemala** and **UK**

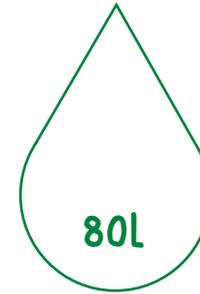
Water footprint:



APPLE JUICE

from **UK**
200ml

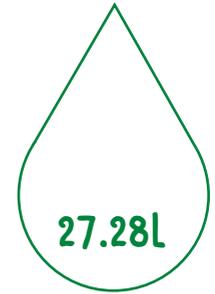
Water footprint:



LEMONADE

from **Italy, Portugal, Brazil** and **UK**
200 ml

Water footprint:



BLACK GOLD

While an espresso shot is just 22ml and its water footprint not as high as a cup of milky coffee, the water footprint per litre of espresso is the highest in the drinks menu. While coffee beans require much water this Brazilian, Kenyan and Guatemalan espresso blend is mostly rainfed.

GREEN APPLES

Since most British apple trees are rainfed, much of the water footprint is made up of green water figures. A glass of juice made from apples in Kent (where Chegworth are based) is significantly lower than the global average of 230 litres.

WHERE DO LEMONS COME FROM?

Sicilian lemons used in this lemonade require the highest amount of irrigation within Italy, almost four times more than the national average. However, Sicilian lemons require less irrigation compared to lemons from Israel, which require eight times more. Although the Brazilian sugar has the largest water footprint, it is nearly all rain water (90%).

TEAS

from **Sri Lanka**

TEA PLANTS

Tea plants grown in Sri Lanka benefit from abundant monsoon rains so there is little need for irrigation, while some tea plants in India use irrigated water for over 20% of its water footprint.

HOT CHOCOLATE

from **Cote d'Ivoire, Brazil** and **UK**
75ml

RAINFED CACAO

Cote d'Ivoire is the largest cacao producer in the world and the water footprint is largely based on the volume of rainwater required to grow the crop.

WONDERWATER

Wonderwater develops projects around the world aimed at raising awareness of global water issues and design for a sustainable future.
wonderwater.fi



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Contact: info@wonderwater.fi
Graphic design: Studio EMMI / emmi.co.uk

Leila's Shop

Leila's Shop is the brainchild of food expert and practitioner Leila McAlister, reputed for her choice of responsibly sourced food. Leila works closely with the local community to promote healthy eating and environmental issues.

King's College London

Wonderwater Café London was developed in collaboration with water expert Dr Naho Mirumachi from the Geography department of King's College London.



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