



The Groundfridge is an innovative, modern version of the traditional root cellar | Photo source [Floris Schoonderbeek](#)

[Innovation](#) > [Sustainability](#) > [Underground fridge keeps food cool naturally](#)

UNDERGROUND FRIDGE KEEPS FOOD COOL NATURALLY

 SUSTAINABILITY

A stylish and modern take on the root cellar can help users save energy and keep food fresh for longer

Spotted: Refrigerators typically use around 1 to 2-kilowatt hours of energy each day. While not as much as some other appliances, this is still a lot of energy. Now, Dutch designer [Floris Schoonderbeek](#) has developed a stylish and energy-efficient alternative – the Groundfridge.

The Groundfridge is an innovative, modern version of the traditional root cellar. Buried in the ground, the Groundfridge uses the ground’s natural insulation to maintain a steady temperature throughout the year. A ventilation fan and timer is used to draw in the cooler nighttime air. The result is an excellent environment to store fruits, cheese, vegetable, wine and other foods.

The Groundfridge is constructed offsite and then dug into the ground and covered with the removed soil. It has a 3000-litre storage capacity and is big enough inside to allow two people to comfortably stand up. The only part visible from the outside is the door, which is a colourful and stylish oval shape, although solar panels are available.

Schoonderbeek was influenced in his design by the recognition that climate change means the world is changing, and so our needs are changing along with it. [According to](#) [Schoonderbeek’s studio](#), the focus is on, “Practical solutions for a creative life in a more beautiful world. ... The designs always connect with the environment and use the natural elements. For example, the [Groundfridge](#) uses the insulating capacity of the ground and the inhalation of cold air during the night.”

Food waste is a major issue, but one we often give little thought to. In London alone, it is estimated that [2.6 million](#) slices of bread are thrown away every day – and that is just the bread.

Luckily, more and more innovators are taking notice. Just recently, we have covered an AI-powered system to help [professional kitchens](#) cut waste and a [terracotta container](#) to use at home to keep food fresher for longer.

Explore more: [Sustainability Innovations](#) | [Work & Lifestyle Innovations](#)

9th June 2021

Website: groundfridge.com

Contact: groundfridge.com/contact

[Download PDF](#)

Takeaway:

Root cellars were used for thousands of years as a way to store food using the insulating properties of the ground. Over time, people have become used to storing everything in a refrigerator. However, many types of foods, such as potatoes and squash, actually store much better in a root cellar. This is because the low temperatures and high humidity of refrigeration can cause these foods to convert their sugars to starch more quickly – robbing them of their flavour and taste. The stylish Groundfridge may signal a return to the past, as well as welcome energy savings.