

REFRIGERATOR THAT RUNS WITHOUT ELECTRICITY KEEPING GROCERIES FRESH FOR EIGHT DAYS

The [Mitticool Natural Refrigerator](#) created by Mansukhbhai Prajapati is available in India since 2005. This low-cost, patented clay refrigerator that need no electricity to preserve drinks and eatables was also presented in 2014 at the Annual Innovation Exhibition organized by the [National Innovation Foundation of India](#).

The clay refrigerator can be used for keeping vegetables, fruits, milk and water fresh for eight days. It does not require any outer source of energy for the freezing effect.

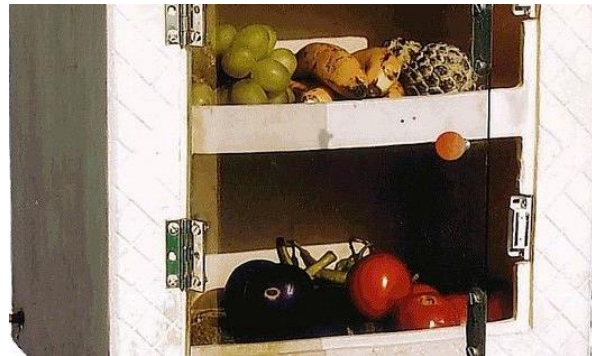
The principle of cooling used in Mitticool is the same as that of earthen pots. Water from the upper chambers drips down the side, and gets evaporated taking away heat from the inside, leaving the chambers cool. The top upper chamber is used to store water. A small lid made from clay is provided on top. A small faucet tap is also provided at the front lower end of chamber to tap out the water for drinking use. In the lower chamber, two shelves are provided to store the food material.

The final design shows a 10-liter water chamber overhead, and two base compartments that can hold five to seven kilograms of vegetables or milk. The natural cooling procedure keeps vegetables and fruits garden-fresh for about eight days, and milk for two days. The refrigerator preserves the original taste of fruits and vegetables.

The fridge cost is between \$40 and \$60, with an average life of four to five years. It has no recurring costs. A zero carbon imprint is another advantage of this device.

This natural refrigerator was designed and built by Mansukhbhai Prajapati, continuing his family traditional business of molding clay. The fridge is produced in his laboratory located in Gujarat State, usually taking 10 people to make a refrigerator in one day.

The idea to transform traditional clay items into an



innovative range of products was supported in 2002 by [GIAN \(Grassroots Innovation Augmentation Network\)](#) which assisted the inventor in various stages of product development. GIAN is one of the organizations partner of the National Innovation Foundation of India, actively helping grassroots innovations [through incubation processes at local level.](#)

To know more

[Mitticool website](#)

[Article in thebetterindia.com](#)

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