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(57) Abstract :

Different drying methods practiced worldwide for the preservation and longevity of herbs and other ingredients. These include oven drying, ambient-air drying, sun drying, infrared drying, etc. The present invention describes the demonstration of geothermal energy based food dryer established in the Dholera region of Gujarat and its application in the drying of food grains, vegetables and fruits. The objective of this drying unit is to establish renewable energy as a potential heat source for drying food items. The instrument efficiently designed such that there are no hazardous emissions or extensive energy requirements for drying materials. Moreover, its uniqueness lies in the fact that the drying conditions can monitored as desired. In addition, there is a uniform distribution of heat during drying, which helps to retain the structural behavior of the products after drying.

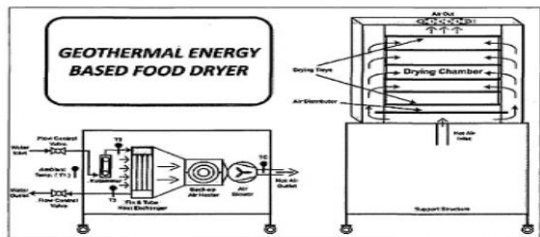


Figure 1: Schematic description of the geothermal energy based food dryer

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