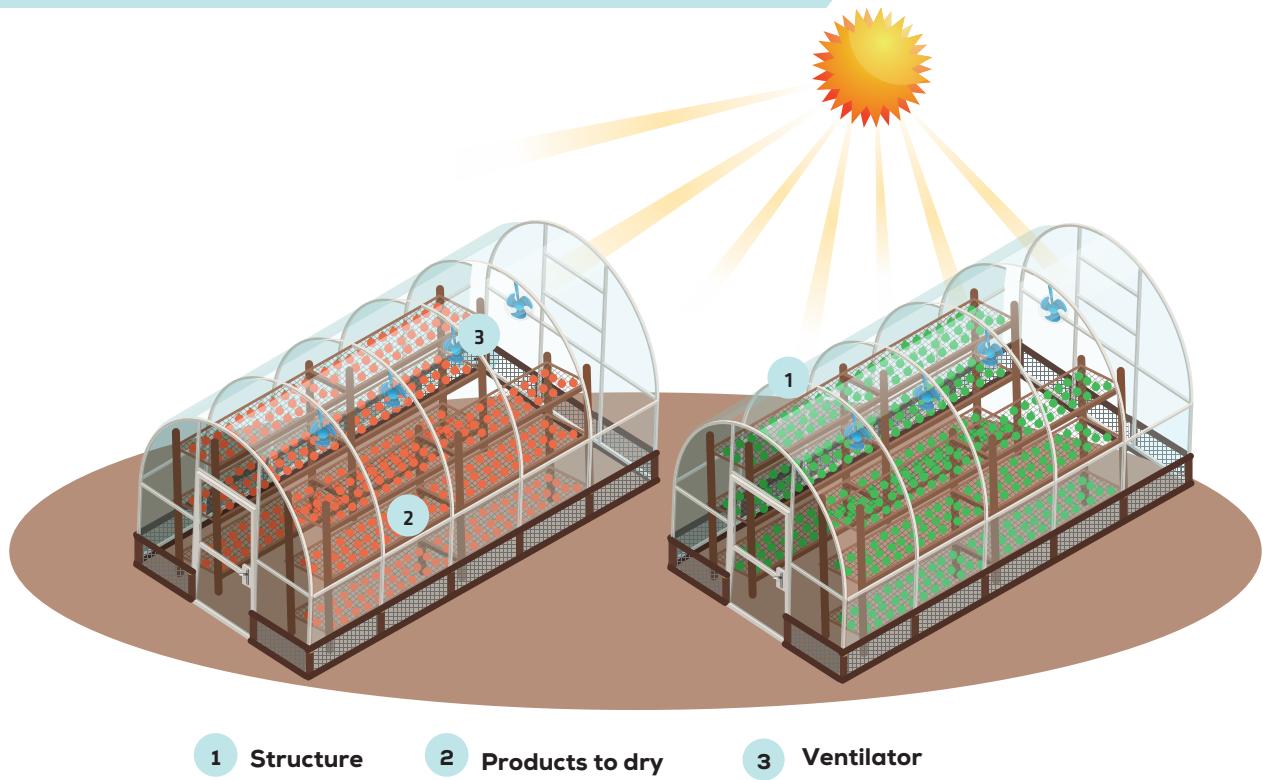


Solar greenhouse dryer

Conserving perishable food and reducing post-harvest losses through solar drying



What is a solar greenhouse dryer?

A solar greenhouse dryer is a technology that reduces the moisture content of agricultural goods by using solar energy. This approach is an improved version of usual open-air sun drying.

Main features

- Solar dryers are available in a variety of forms and sizes.
- The top of the dryer is made of a transparent material that allows the sunlight to pass through. The incoming solar radiation heats up the drying chamber increasing the humidity holding capacity of the air in the chamber.
- Due to the humidity gradient between air and agricultural products, the air absorbs humidity from them.
- With the flow created by the ventilator, the humid air is removed from the chamber and replaced by dryer air.
- This process reduces the moisture content of agricultural products from about 90 % to 10 % in a few days.

Advantages of using a solar greenhouse dryer?

- Solar greenhouse dryers are completely powered by solar energy.
- Solar drying protects products from dust, rain and insects as well as external contamination (e.g. bacteria, yeast and molds).
- Perishable products such as mangoes, tomatoes or herbs once dried, can be preserved for several months, thus expanding their shelf life.
- Post-harvest losses are hence reduced, and higher quality agricultural products are prepared for secondary processing.

More information at : <https://we4f.org/>

Contact : we4f@giz.de