

SolarFlex “Family” Dryer

August 2008

This model is intended for the small landholder or a family. With a nominal capacity of about 20 kg of sliced wet fruit or vegetables, this passive solar dryer is ideal for preservation for personal consumption or micro-enterprise.

It is well known that most fruits and vegetables (and even fish) are often available in seasonal gluts when the prices are extremely low and vendors and growers can hardly sell for any profit. During such times, consumers and producers can benefit greatly with the practice of drying for later consumption or sale.

The SolarFlex “Family” model uses a combination of traditional and innovative passive solar drying in a very cost-effective combination. Ambient air enters the bottom of the solar collector and moves upwards naturally while picking up considerable heat. It then enters the bottom of the drying cabinet, which contains 10 drying racks. At the top of the cabinet, a group of five metal chimneys, heated by the sun, cause additional updraft of hot air which pulls the humid air out of the cabinet at the same time that fresh dry and hot air is entering the bottom. An additional solar collection plate at the front of the dryer cabinet transfers more heat into the cabinet through holes in the steel absorber.



While this system is somewhat slower in drying products than a model with forced air circulation (such as the larger SolarFlex dryer), and some products may take a second day of drying (depending on the fruit, the length of the sunny day and ambient temperatures) the low cost, (target of \$700) versus capacity makes this option attractive.



Web: www.malnutrition.org
E-mail: matters@malnutrition.org

www.solarflex.ca
info@solarflex.ca