

SOLAR FOOD DRYER

Drying fruits and vegetables in the sun is easy and inexpensive. The heat from the sun is captured by the plastic cover over the solar food dryer. Air holes in front and back permit air circulation necessary for efficient drying. Even in partial sun temperatures will usually be high enough for proper drying.

MATERIALS NEEDED

- One sturdy cardboard box, longer than it is wide so the sides won't shade the food. (17 inches long by 12 inches wide by 9 inches high is a good size.)
- One dowel or narrow stick ($\frac{1}{2}$ or $\frac{3}{4}$ inch wide and 3 times the width of the box plus 6 inches). Cut into 3 equal lengths, each 2 inches longer than box width.
- One piece of wood quarter-round or lath the length of the box.
- One can of heat-resistant acrylic black spray paint.
- One cake rack covered with nylon net to hold dried foods on dowels.
- One sheet of sturdy clear plastic. Kitchen plastic wrap will make a temporary cover. (Cut 4 inches longer and 4 inches wider than opening.)
- Piece of nylon net to cover box when plastic cover is not used.
- Two sheets of nylon net or cheesecloth to fit over rack.
- Duct tape or stapler.
- Screwdriver or large nail to make air holes.

TO MAKE YOUR SOLAR FOOD DRYER

Cut the sides of the box at an angle to let the maximum sun in. (Front 3 inches high, back 9 inches high.) See illustration.

Punch holes for the dowels or sticks which will hold the rack or shelf. In the front and the back, cut 3 holes, 2 inches from base of box.

Punch air holes 1 inch from base in front, 2 inches from top in back. This allows air to circulate in drying. Make hole $\frac{1}{2}$ - $\frac{3}{4}$ inches across — too small holes will keep moisture inside.

Spray inside of box with black paint to absorb more heat.

Insert dowels and attach rack. A shelf may also be made by placing nylon net over the dowels and fastening with staples or duct tape.

Attach the plastic cover with staples to the quarter-round or stick. Staple or tape the opposite side of the plastic to the back of the box. Leave sides unattached.

TO DRY FOOD

Slice clean, fresh, ripe fruits or vegetables. The thinner the slices, the faster they dry.

Place the food on a piece of nylon net to prevent sticking to racks.

Set the box in the sun — keep it turned toward the sun. An oven thermometer will show temperatures. Dry at 135-140°F. if possible — lower temperatures will take longer. Open the cover if temperatures get higher — too hot a temperature will cook the food! Cover box with net cover to keep insects out when cover is removed.

Dry food on a day with at least half sun — too cool may result in moldy food. Turn the food at least once a day.

Dry fruit until pliable — vegetables until brittle. Herbs will dry in a few hours, fruits and vegetables 4-12 hours or as much as 1 or 2 days. A small electric fan sitting near the box will speed drying and help regulate temperature.

SOLAR DRYING IN THE CAR

Food drying may be done in the back window of a car — with windows cracked for ventilation. Place net covered rack over a flat pan or cookie sheet. Cover food with cheesecloth to keep bugs out. Toothpicks will hold cheesecloth off food. Avoid strong flavored vegetables as the odor will stay in the car!

Source: OSU Master Food Preserver Program

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