



Drying Foods Indoors¹

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Most foods can be dried indoors using modern food dehydrators, counter-top convection ovens or conventional ovens. Microwave ovens are recommended only for drying herbs, because there is no way to create enough air flow in them.

FOOD DEHYDRATORS

A food dehydrator is a small electrical appliance for drying foods indoors. A food dehydrator has an electric element for heat and a fan and vents for air circulation. Dehydrators are efficiently designed to dry foods fast at 140°F.

Food dehydrators are available from department stores, mail-order catalogs, the small appliance section of a department store, natural food stores and seed or garden supply catalogs.

Costs vary from \$50 to \$350 or above depending on features. Some models are expandable and additional trays can be purchased later. Twelve square feet of drying space dries about a half-bushel of produce. The major disadvantage of a dehydrator is its limited capacity.

Dehydrator Features to Look For

- Double wall construction of metal or high grade plastic. Wood is not recommended, because it is a fire hazard and is difficult to clean.
- Enclosed heating elements.
- Counter top design.
- An enclosed thermostat from 85°F to 160°F.
- Fan or blower.
- Four to 10 open mesh trays made of sturdy lightweight plastic for easy washing.
- UL seal of approval.
- A one-year guarantee.
- Convenient service.
- A dial for regulating temperature.
- A timer. Often the completed drying time may occur during the night and a timer could turn the dehydrator off and prevent scorching.

Types of Dehydrators

There are two basic designs for dehydrators. One has horizontal air flow and the other has vertical air flow. In the units with horizontal flow, the heating element and fan are located on the side of

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the unit. The major advantages of horizontal flow are: it reduces flavor mixture so several different foods can be dried at one time; all trays receive equal heat penetration; and juices or liquids do not drip down into the heating element. Vertical air flow dehydrators have the heating element and fan located at the base. If different foods are dried, flavors can mix and liquids can drip into the heating element.

Homemade Dehydrators

Instructions are available from county Extension offices for building a homemade dehydrator. Building a dehydrator could save money; however, the design is not as efficient as commercial dehydrators.

OVEN DRYING

Everyone who has an oven has a food dehydrator. By combining the factors of heat, low humidity and air current, an oven can be used as a dehydrator.

An oven is ideal for occasional drying of meat jerkies, fruit leathers, banana chips or for preserving excess produce like celery or mushrooms. Because the oven may also be needed for everyday cooking, it may not be satisfactory for preserving abundant garden produce.

Oven drying is slower than dehydrators because it does not have a built-in fan for the air movement. (However, some convection ovens do have a fan.) It takes two times longer to dry food in an oven than in a dehydrator. Thus, the oven is not as efficient as a dehydrator and uses more energy.

To Use Your Oven

First, check your dial and see if it has a reading as low as 140°F. If your oven does not go this low, then your food will cook instead of dry.

For air circulation, leave the oven door propped open 2 to 6 inches. Circulation can be improved by placing a fan outside the oven near the door. **CAUTION:** This is not a safe practice for a home with small children.

Because the door is left open, the temperature will vary. An oven thermometer placed near the food gives an accurate reading. Adjust the temperature dial to achieve the needed 140°F.

Trays should be narrow enough to clear the sides of the oven and should be 3 to 4 inches shorter than the oven from front to back. Cake cooling racks placed on top of cookie sheets work well for some foods. The oven racks, holding the trays, should be 2 to 3 inches apart for air circulation.

ROOM DRYING

This method of drying differs from sun drying since it takes place indoors in a well-ventilated attic, room, car, camper or screened-in-porch. Herbs, hot peppers, nuts in the shell and partially dried, sun dried fruits are the most common air dried items.

Herbs and peppers can be strung on a string or tied in bundles and suspended from overhead racks in the air until dry. Enclosing them in paper bags, with openings for air circulation, protects them from dust, loose insulation and other pollutants. Nuts are spread on papers, a single layer thick. Partially sun dried fruits should be left on their drying trays.

DEHYDROFREEZING

Dehydrofreezing is a new method of food preservation that combines the techniques of drying and freezing.

Fruits dried at home normally have had 80 percent of their moisture removed; vegetables, 90 percent. However, by removing only 70 percent of the moisture and storing the fruit or vegetable in the freezer, a tastier product results. The low temperature of the freezer inhibits microbial growth. Also, the food takes up less room in the freezer. Dehydrofrozen fruits and vegetables have good flavor and color. They reconstitute in about one-half the time it takes for traditionally dried foods. For information on dehydrofreezing at home, contact your county Extension agent.

Dehydrofreezing is not freeze-drying. Freeze drying is a commercial technique that forms a vacuum while the food is freezing. Freeze drying is a costly process which can't be done in the home.