

# Drying Foods

Drying is believed to be one of the oldest methods of food preservation. While there is little recorded history of dehydration of foods, sun-drying and the smoking of foods over a hot fire are mentioned in the Bible. Samples of foods which were discovered within the last few years were believed to have been dried in Jericho 4,000 years ago.

Drying is a method of food preservation that is simple, safe, and easy to learn. Drying also creates new food products such as fruit leather, banana chips, pumpkin seeds, and beef jerky.

Drying removes enough moisture from the food so bacteria, yeast and molds cannot grow. Drying also slows down the action of enzymes, a natural chemical in fruits and vegetables that causes food to ripen and eventually spoil.

## Drying Methods

### Sun-Drying

You will find many references which describe the sun-drying of foods. Sun-drying requires constant exposure to direct sunlight during the day and a relative humidity of less than 20%. These conditions are usually found in only a few regions of the United States, such as the Sacramento Valley of California or in Arizona. Foods dried in the sun can take from 3-4 days to dry; and if the humidity is high, as is generally the case in Minnesota, the food will mold before it dries. Therefore, sun-drying is not recommended in Minnesota due to our high humidity and cool night temperatures.



### Dehydrators

Whatever the method is, drying food is a slow process. In a dehydrator, it will take 6 or more hours to dry most foods. Of course, the drying time depends on the type of food, the thickness of the cut, the moisture content of the food and the method used.

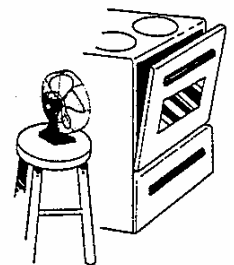
Most food dehydrators have an electric element for heat and a fan and vents for air circulation. Efficient dehydrators are designed to dry foods uniformly and to retain food quality.

### Oven Drying

By combining heat, low humidity, and air current, an oven can be used as a dehydrator. It is ideal for occasional drying of meat jerky, fruit leathers, and banana chips or for preserving leftovers like celery or mushrooms. Drying in an oven is slower than in a dehydrator because ovens do not have built-in fans for the air movement. It takes two to three times longer to dry food in an oven than in a dehydrator; thus, the oven is not as efficient and uses a great deal more energy than a dehydrator.

To use your oven, check the oven dial to see if it has a reading as low as 140°F. If the thermostat does not go this low, your food will cook instead of dry.

For air circulation, leave the oven door propped open 2 to 4 inches and place a fan near the outside of the oven door to improve circulation. An oven thermometer placed near the food gives an accurate reading of the drying temperature.



## Air Drying

Air drying differs from sun drying, since it takes place indoors in a well-ventilated attic, room, or screened-in porch. Herbs, hot peppers, and mushrooms are the most common air-dried items. Herbs and peppers are not pretreated, but are simply strung on a string or tied in bundles and suspended from overhead racks until dry. Enclose them in paper bags to protect them from dust or other pollutants.



## Microwave Drying

It is not possible to dry food successfully in a microwave oven except for herbs and some leaf vegetables. Often food which has been microwave dried tastes overcooked rather than dried.



Microwave ovens are a quick way to dry herbs when only small quantities are desired. Place no more than 4 or 5 herb branches between two paper towels and microwave for 2 to 3 minutes. Remove the herbs, and when cool, check to see that they are dry and brittle. If not, repeat drying for 30-second intervals until dry.

## Ideas, Hints and Suggestions for Use

- Dried fruits can be eaten as nutritious snacks or soaked for 1 or 2 hours and used in favorite recipes.
- Fruits that dry well for snacks are apples, apricots, bananas and pears.
- Dried sliced vegetables can be eaten as tasty vegetable chips for dips.
- Vegetables can be added directly to soups or stews drawing on the liquid in the soup or stew for rehydration during cooking.
- Fruit leathers made from overripe fruit make nutritious snacks.
- Chop and dry green pepper, onion, celery, chives, etc., for use instantly all year.
- Make your own onion powder by drying onion slices until crisp and powder in the blender.
- Grate carrots for use in salads, carrot cake, soups, stews, or casseroles.



## What are some of the benefits for food drying?

**There are many—here are a few:**

- ☑ You will save money. Keep in mind that food drying is a one-time cost. Canned foods, once opened, must be used promptly, but containers of dried foods can be repeatedly opened, ingredients removed or added, and closed again with no ill effects on the contents.
- ☑ Dried food is super-convenient because it can be eaten just the way it is.
- ☑ You are able to store more food in far less space than canned or frozen food.
- ☑ Gives you natural snacks with "extreme" flavor.
- ☑ Retains more nutritional quality than canned or frozen food.
- ☑ You will be able to reap the rewards of your own garden, but it will also allow you to take advantage of supermarket specials.
- ☑ Dried foods are tasty, nutritious, lightweight, easy to prepare, easy to carry, and easy to use.

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