

Preserving Food: Drying Fruits *and* Vegetables

Food drying is one of the oldest methods of preserving food for later use. It can either be an alternative to canning or freezing, or compliment these methods. Drying foods is simple, safe and easy to learn. With modern food dehydrators, fruit leathers, banana chips and beef jerky can all be dried year round at home.

How Drying Preserves Food

Drying removes the moisture from the food so bacteria, yeast and mold cannot grow and spoil the food. Drying also slows down the action of enzymes (naturally occurring substances which cause foods to ripen), but does not inactivate them.

Because drying removes moisture, the food becomes smaller and lighter in weight. When the food is ready for use, the water is added back, and the food returns to its original shape.

Foods can be dried in the sun, in an oven or in a food dehydrator by using the right combination of warm temperatures, low humidity and air current.

In drying, warm temperatures cause the moisture to evaporate. Low humidity allows moisture to move quickly from the food to the air. Air current speeds up drying by moving the surrounding moist air away from the food.

Drying Foods Out-of-Doors

Sun Drying

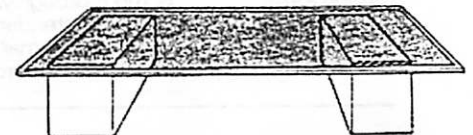
The high sugar and acid content of fruits make them safe to dry in the sun. Vegetables and meats are not recommended for sun drying. Vegetables are low in sugar and acid. This increases the risks for food spoilage. Meats are high in protein making them ideal for microbial growth when heat and humidity cannot be controlled.

To dry in the sun, hot, dry, breezy days are best. A minimum temperature of 86°F is needed with higher temperatures being better. It takes several days to dry foods out-of-doors. Because the weather is uncontrollable, sun drying can be risky.

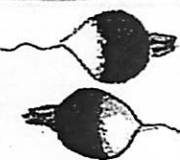
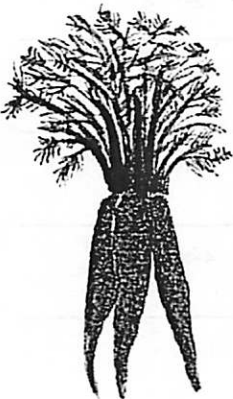
Also, the high humidity in the South is a problem. A humidity below 60 percent is best for sun drying. Often these ideal conditions are not available when fruit ripens.

Fruits dried in the sun are placed on trays made of screen or wooden dowels. Screens need to be safe for contact with food. The best screens are stainless steel, teflon coated fiberglass or plastic. Avoid screens made from "hardware cloth." This is galvanized metal cloth that is coated with cadmium or zinc. These materials can oxidize, leaving harmful residues on the food.

Also avoid copper and aluminum screening. Copper destroys vitamin C and increases oxidation. Aluminum tends to discolor and corrode.



Outdoor Drying Rack



Drying Vegetables at Home

Vegetable	Preparation	Blanching Time		Drying Time Dehydrator* (hours)
		Steam (minutes)	Water (minutes)	
Artichokes-Globe	Cut hearts into 1/8-inch strips. Heat in boiling solution of 3/4 cups water and 1 tablespoon lemon juice.		6-8	4-6
Asparagus	Wash thoroughly. Cut large tips in half.	4-6	3 1/2 - 4 1/2	4-6
Beans, green	Wash thoroughly. Cut in short pieces or lengthwise. (May freeze for 30 to 40 minutes after blanching for better texture.)	2-2 1/2	2	8-14
Beets	Cook as usual. Cool; peel. Cut into shoestring strips 1/8-inch thick.	Already cooked no further blanching required.		10-12
Broccoli	Trim, cut as for serving. Wash thoroughly. Quarter stalks lengthwise.	3-3 1/2	2	12-15
Brussels Sprouts	Cut in half lengthwise through stem.	6-7	4 1/2 - 5 1/2	12-18
Cabbage	Remove outer leaves; quarter and core. Cut into strips 1/8-inch thick.	2 1/2-3**	1 1/2-2	10-12
Carrots	Use only crisp, tender carrots. Wash thoroughly. Cut off roots and tops; preferably peel, cut in slices or strips 1/8-inch thick.	3-3 1/2	3 1/2	10-12
Cauliflower	Prepare as for serving.	4-6	3-4	12-15
Celery	Trim stalks. Wash stalks and leaves thoroughly. Slice stalks.	2	2	10-16
Corn, cut	Husk, trim and blanch until milk does not exude from kernel when cut. Cut the kernels from the cob after blanching.	2-2 1/2	1 1/2	6-10
Eggplant	Use the same directions as for summer squash	3 1/2	3	12-14
Garlic	Peel and finely chop garlic bulbs. No other pretreatment is needed. Odor is pungent.	No blanching is needed.		6-8
Greens (chard, kale, turnip, spinach)	Use only young tender leaves. Wash and trim very thoroughly.	2-2 1/2**	1 1/2	8-10
Horseradish	Wash; remove small rootlets and stubs. Peel or scrape roots. Grate.	none		4-10
Mushrooms (WARNING, see footnote***)	Scrub thoroughly. Discard any tough, woody stalks. Cut tender stalks into short sections. Do not peel small mushrooms or "buttons." Peel large mushrooms, slice.	none		8-10

Drying Vegetables at Home (continued)

Vegetable	Preparation	Blanching Time		Drying Time Dehydrator* (hours)
		Steam (minutes)	Water (minutes)	
Okra	Wash, trim, slice crosswise in 1/8- to 1/4-inch disks.	none		8-10
Onions	Wash, remove outer "paper shells." Remove tops and root ends, slice 1/8- to 1/4-inch thick.	none		3-9
Parsley	Wash thoroughly. Separate clusters. Discard long or tough stems.	none		1-2
Peas, Green	Shell	3	2	8-10
Peppers, and Pimientos	Wash, stem, core. Remove "partitions." Cut into disks about 3/8 by 3/8 inch.	none		8-12
Potatoes	Wash, peel. Cut into shoestring strips 1/4-inch thick, or cut in slices 1/8-inch thick.	6-8	5-6	8-12
Pumpkin and Hubbard Squash	Cut or break into pieces. Remove seeds and cavity pulp. Cut into 1-inch wide strips. Peel rind. Cut strips crosswise into pieces about 1/8-inch thick.	2 1/2-3	1	10-16
Squash: Summer	Wash, trim, cut into 1/4-inch slices.	2 1/2-3	1 1/2	10-12
Tomatoes, for stewing	Steam or dip in boiling water to loosen skins. Chill in cold water. Peel. Cut into sections about 3/4-inch wide, or slice. Cut small pear or plum tomatoes in half.	3	1	10-18

* Drying times in a conventional oven could be up to twice as long, depending on air circulation.

** Steam until wilted.

*** WARNING: The toxins in poisonous varieties of mushrooms are not destroyed by drying or by cooking. Only an expert can differentiate between poisonous and edible varieties.

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