

DEHYDRATION

Drying food at home is easy to do, to use and to store. However, unlike the exact methods needed for canning and freezing, finding the best technique for drying may require the trial and error approach. Various factors like the drying methods used, the quality of the produce, pretreatment techniques and even the climate may affect the finished product. Follow the general guidelines given for a specific food and then make the necessary adjustments accordingly.

Successful home food dehydration is dependent on three basic principles:

HEAT - controlled temperature high enough to force out moisture, but not hot enough to cook the food.

DRY AIR - to absorb the released moisture.

AIR CIRCULATION - to carry the moisture away.

When food is dehydrated, 80% to 95% of the moisture is removed, inactivating the growth of bacteria and other spoilage microorganisms, making it a useful method of preservation.

DRYING METHODS

Food dehydration can be done by several methods. Natural ones like sun and room drying require warm days of 30°F or more, low humidity, little air pollution and control of insects for an adequate finished product. Oven drying is a good choice for only small quantities of food, because the energy costs of operating a gas or an electric range are high compared to the cost of operating an electric food dryer. A conventional oven only heats food and does not carry away moisture. Commercial or homemade electric

dehydrators provide the most reliable and consistent results, often without pretreatment, because of the controlled temperature and air flow. Food dehydrated by this method dries quickly and evenly. The quality of the finished product can be excellent, and food can be dried 24 hours a day, summer or winter, rain or shine. The main disadvantage is the initial investment. Like any appliance purchase, your per-

sonal needs should be assessed.

Cost of operation must also be considered, but this can be minimized by operating the dehydrator at full capacity. If a dehydrator is used frequently and to maximum capacity, it can be a very cost-effective way to preserve foods.

Desirable Electric Dehydrator Features

Heat Source - The heating element should be efficient and durable, enclosed for safety and have sufficient wattage for the entire drying area, about 70 watts per tray.

Fan - The fan should blow heated air evenly over all the food. Its size should be proportional to the dryer capacity, and it should be quiet. The unit may be in operation more than 12 hours a day.

Thermostat - The dehydrator should have an adjustable temperature control with a range from 85° to 160°F.

Drying Trays - Trays and inserts should be made of safe, food-grade material such as stainless steel, nylon, Teflon-coated fiberglass or plastic. Do not use copper, aluminum or plated metal, such as cadmium or zinc plated, in contact with drying food. Copper reduces the vitamin C. Aluminum discolors some fruits. Cadmium and zinc (galvanized) plated metal can be dissolved by fruit acids to cause the fruit to become toxic. Trays should have adequate spaces for air circulation and be easy to load, unload and clean.

Construction Quality - The dehydrator should be made of a durable, easy to clean material such as plastic or metal. It should be CJL approved, come with a warranty and information for factory repair service.

Dehydrators maybe made at home, but see your state extension service for building plans.

GETTING STARTED

Equipment other than an electric dehydrator, most equipment needed for drying food is found in the kitchen. The list includes: a sharp paring knife, a colander/steamer for washing and blanching produce, a cutting board, a vegetable peeler, a food processor or a vegetable slicer for evenly cut slices, a grater, a blender and measuring utensils.

Selection Of Produce Fresh, high-quality, mature, ripe produce is best for drying. Naturally, fresh from the garden is the first choice for any method of food preservation. Plan to dry food in peak seasons, especially if produce must be purchased from farm stands or supermarkets. The quality will be higher and the price lower.

How Much Produce to Grow or Buy

When produce is properly dried, it will weigh much less and take up less volume, depending on such factors as natural moisture content of the fruit or vegetable and discarded non-edible portions, such as peelings, cores, seeds, pits, pods and stems. As an example, apples are usually pared and cored prior to drying, so a purchased weight of 10 pounds will be reduced to 1 to 1 1/2 pounds when dried.

Pretreatment Techniques Most vegetables and some fruits benefit from pretreatment techniques, such as blanching and dipping. Although the drying process slows down the action of enzymes, those chemical substances that cause fruits and vegetables to mature and ripen, it does not stop the action entirely. Simple pretreating can retard this action. Blanching (heating in steam or water for a specific time) is the most common method of pretreating vegetables. Steam blanching is preferred because more water-soluble vitamins and minerals are preserved. In steam blanching, vegetables (or fruits) are suspended above boiling water in a colander and are heated by the steam. In water blanching, the vegetables (or fruits) are placed directly in the boiling water. Blanching shortens the drying and rehydration time, sets color, retards enzyme action and kills many spoilage microorganisms.

Dipping is a pretreatment used to prevent fruits like apples, bananas, peaches and pears from oxidizing. Oxidation is the process that causes fruits to turn brown and lose some vitamin A and C when exposed to the oxygen in air. Common antioxidants are lemon or lime juice, ascorbic acid, commercial products containing either ascorbic or citric acid or a combination of both.

Lemon or Lime Juice - the most natural pre-dip. Use 1 cup of juice to 1 quart of water. Soak fruit for no longer than 10 minutes; drain before drying.

Ascorbic Acid - also known as vitamin C; available in drugstores- Dissolve 1 tablespoon to each quart of water. Hold fruit in solution no longer than 1 hour; drain before drying.

Commercial Antioxidants - available in the supermarket. Use according to package instructions.

The **Drying Process** Temperature plays a key role in the drying process, if the temperature is too high, food may case harden; that is, cook and harden on the outside while trapping moisture on the inside. Generally, vegetables are dried at 125°F, fruits at 135°F and meats at 145°F.

There are other variables to consider when timing foods in a dehydrator: the amount of natural water in the food, the size and thickness of the food, the relative humidity of the air and even the efficiency of the dehydrator. Vegetables may take as little as 3 to 4 hours or up to about 14 hours to dry, depending on the above variables. For example, sliced mushrooms will probably dry in an average of 4 hours, while beets may take as long as 12 to 14 hours to dry.

Weight Loss Due to Dehydration Testing fruits and vegetables for dry-ness can be done simply by tasting and touching or by using the following methods:

1. After peeling, coring, etc., weigh prepared produce. (For example, pared, cored and sliced apples weigh 10 pounds.)
2. See the recipes for the water content of fruit or vegetable (apples 84%).
3. The total weight of water = weight of prepared fruit x percent of water content (10x0.84 = 8.4 pounds of water).
4. Most fruits need 80% of water removed; most vegetables need 95% of water removed. To find the weight of water to be removed, multiply the total weight of water by the percent of water to be removed. (For apples, 8.4 x 0.80 = 6.72 pounds of water to remove.)
5. To find how much the produce should weigh after dehydration, subtract the weight of water to be removed from the weight of the fresh product. (For apples, 10 pounds prepared apples - 6.72 pounds of water = 3.28 pounds of dried apples.) In this technique, if one starts out with 10 pounds of prepared apples, the apples will be sufficiently dehydrated when they weigh about 3 1/4 pounds.

Storage

Any food-safe container that protects dried food from air, moisture, light and insects will extend its shelf life. Home canning jars have the advantage of keeping out these spoilers while providing a convenient "see-thru" container. Jars should be washed in very hot, soapy water (a dishwasher may be used), thoroughly rinsed and dried and allowed to cool completely before filling. Screw on two-piece caps; label; and date the finished product. Other containers suitable for dried foods include; heavy-duty, self-sealing or seal-by-heat food storage bag or metal containers like a coffee can, lined with a food-grade plastic bag and with a tight-fitting lid.

Store dried food in a cool, dry, dark place; the cooler the storage area, the longer the shelf life. Most fruits and vegetables can safely be stored from six months to one year, depending on temperature. Occasionally check dried fruits and vegetables for moisture- If moisture is apparent and no spoilage is evident, use product immediately or dehydrate again and repackage food. Rehydrating Tips - The Final Facts for Enjoying Dried Food

Vegetables dried to 5% residual moisture take longer to rehydrate than fruit dried to 20% residual moisture content.

Small or thin pieces of fruits and vegetables rehydrate in less time than large pieces-

Blanched vegetables rehydrate more quickly than unblanched vegetables.

Boiling water shortens rehydration time.

Rehydration is quicker in soft water than in hard water.

Sugar and salt increase time for food rehydration; add at final 5 minutes for best results.

VEGETABLE BASICS

Most vegetables, from asparagus to zucchini, can be dehydrated at home. Select garden fresh, top quality produce for the best results. Remem-

ber that although dried vegetables retain most of their vitamin and mineral content and good flavor, the original quality cannot be improved upon.

All vegetables require some preparation; such as removing stems, peel or seeds before drying. Like fruits, uniformly cut slices or pieces result in even drying. (Unlike fruits, vegetables are better cut slightly smaller to hasten drying time. Vegetables lose flavor and tenderness if the drying time is prolonged. Drying time varies from about 4 to 14 hours. A temperature of 125F is recommended for most vegetables. Finished vegetables should contain about 5% moisture. When tested, vegetables should look and feel crisp or brittle.

Home canning jars make excellent storage containers for vegetables, making it easy to remove needed quantities and reseal and store. Vegetables can be eaten dried, but they are usually reconstituted before using. An equal volume of water is needed. Boiling water will shorten the rehydration time. Generally, it takes 15 minutes to 2 or 3 hours, depending on the texture and thickness of the vegetables.

If a vegetable is not listed below, freezing or canning may be a more suitable method of food preservation.

ASPARAGUS

Choose young tender, green stalks. Wash; cut off tough end. Slice into 1-inch pieces. Steam blanch 3 to 4 minutes. Dry at 125°F until brittle. Rehydrate and serve in soups or with seasoned cream sauce. Water content 92%.

BEANS, GREEN or WAX

Choose Blue Lake, Tendergreen and Goldcrop Wax, or any variety with crisp thick walls and small seeds. Wash; snap off ends; cut diagonally into 1 -inch pieces, or French cut to expose more surface area. Steam blanch 4 to 6 minutes. Freeze beans 30 minutes to tenderize before drying at 125°F until brittle. Rehydrate and use in casseroles, soups or stews. Water content 90%.

BEEETS

Choose Morse Red, or Detroit Dark Red, or any fresh young variety with deep red color and smooth skins. Wash; remove all but one inch of top.

Steam about 30 minutes, or until tender. Cool; then peel; cut into 1/2-inch slices or dice. Dry at 125°F until leathery. Use in soups or reconstitute as a vegetable. Water content 87%.

CARROTS

Choose Royal Chantenay, Emperor or Danvers Half Long, or any deep orange, mature variety. Wash; trim

FRESH WEIGHT VS. DRIED WEIGHT

FRUITS		VEGETABLES	
20 POUNDS PREPARED PRODUCE	DEHYDRATED POUNDS	20 POUNDS PREPARED PRODUCE	DEHYDRATED POUNDS
Apples Cherries, Sweet Peaches Pears Prune Plums	6 1/2 7 6 1/2 to 7 6 1/4 to 7 1/2	Beans, Green, Wax Carrots Corn Onions Peas Squash, Summer	3 3 to 5 1/2 6 3 5 to 5 1/2

tops; and peel. Slice crosswise or dice. Steam blanch 3 to 4 minutes. Dry at 125°F until almost brittle. Use in soups, stews, carrot cake. Water content 88% .

CORN

Choose any yellow variety with tender, sweet kernels. Shuck corn; remove silk. Steam until milk is set; carefully cut from cob. Dry at 125°F until brittle. Use in soups, chowders, fritters, or make corn meal. Water content 73% .

MUSHROOMS

Choose only edible cultivated mushrooms with small closed caps. Wash quickly to remove dirt; cut in 1/4-inch slices. Dry at 125°F until brittle. Use in soups, sauces and casseroles. Water content 90% .

OKRA

Choose Clemson Spineless or any firm pod 2 to 4 inches long. Wash; cut off ends; slice crosswise 1/2-inch thick, Dry at 125°F until leathery. Use in soups, gumbos, or rehydrate, bread, and fry in oil. Water content 89% .

ONIONS

Choose Red or White Creole, Yellow or White Globe, White Bermuda or White Sweet Spanish. Large, pungent white varieties dry best. Trim ends; peel off paper shell; cut into slices 1/2-inch thick. Dry at 145°F until crisp. Use in soups, stews, casseroles, or powdered or flaked for seasoning. Water content 89%.

Choose a medium-sized pea such as Maestrol or Thomas Laxton, Shell peas. Steam blanch 3 minutes. Dry at 125°F until brittle. Use in soups, stews, or rehydrate. Water content 78%.

PEPPERS, HOT

Choose hot varieties such as Jalapeno, Anaheim, Hungarian Wax and Long Red Cayenne. Protect hands with rubber gloves, and do not touch face or eyes. Wash; cut into pieces, about 1/2 to 1 inch. Dry at 125°F until crisp. Grind and use as a seasoning in soups, stews, casseroles, Mexican foods. Water content 93%.

PEPPERS, SWEET BELL

Choose California Wonder, Bell Boy or Volo Wonder, or any well-shaped sweet pepper. Wash; remove stem and seeds; dice. Dry at 125°F until leathery. Use to season other foods. Water content 93% .

POPCORN

Choose varieties specifically grown for popping: Japanese Hullless, Dynamite or Creme-Puff. Leave kernels on cob until dried. Dry at 130°F until shriveled. Test a few kernels to see if they pop. Popcorn should have a dehydrated moisture content of 10%. Water content 73%.

POTATOES

Choose any of Russet varieties. Wash well to remove dirt; peel. Cut into slices 1/2-inch thick. Steam blanch 5 to 6 minutes. Rinse well in cold water to remove starch. Dry at 125°F until crisp. Use in soups, casseroles, potato dishes. Water content 80%.

PUMPKIN

Choose fleshy variety such as Small Sugar. Wash; peel; remove fibers and seeds. Cut into small thin strips. Steam blanch 2 or 3 minutes, or until tender, Dry at 125°F until brittle. Use in pies and baked goods. Water content 90%.

SWEET POTATOES AND YAMS

Choose thick orange potatoes free from decay and blemishes. Wash; peel; and cut into 1/2-inch slices. Steam blanch 3 minutes. Dry at 125°F until brittle. Use to make candied yams or bake in pies and bread. Water content 71%.

TOMATOES

Choose paste-type varieties like San Marzano Roma. Wash; dip in boiling water for 30 seconds, then cold water to remove skins. Core. Cut into 1/2-inch slices. Dry at 145°F until crisp. Use in soups, sauces or combined with other vegetables for flavor. Can be powdered and used in making tomato sauces, paste or catsup. Water content 94%.

TURNIPS, RUTABAGA

Choose firm, round turnips. Wash; remove tops; and peel. Cut into slices 1/2 to 3/4-inch thick. Steam blanch 3 to 5 minutes. Dry at 125°F until brittle. Use in soups and with potatoes. Thinly sliced turnip chips are an excellent snack. Water content: turnips 92%, rutabagas 87%.

ZUCCHINI

Choose young slender squash. Wash; cut into 1/2-inch slices or 3/4-inch slices for chips. Dry at 125°F until brittle. Use in soups, casseroles. Sprinkle zucchini chips with seasoned salt. Serve with dips. Water content 94%.

FRUIT BASICS

Sweet, ripe fruits in their natural state will be sweet and delicious when dried. As a rule, most fruits can be successfully dried, but a few are best eaten fresh; such as, avocados, citrus fruits and melons.

Some fruits like grapes, plums and blueberries have a waxy coating or "bloom" that must be "checked" or removed by dipping in boiling water before beginning the drying process. Other fruits, particularly temperate-zone stone fruits, such as peaches, plums and apricots, benefit by a technique called "popping the backs"; that is, pushing in the rounded side of cut fruits to expose more fruit surface to dry. It may take as long as 24 hours to properly dry stone fruit.

Uniformly cut slices or pieces of fruit will dry more evenly. Dried fruit should retain some moisture, about 15 to 20%. To test for dryness, cut a piece in half; no visible moisture should be present. The piece of fruit should be pliable and chewy. Bananas and strawberries should be almost crisp for best protection against mold spoilage.

Dried fruit is a natural, sweet tasting snack. However, there may be times when you will want to rehydrate the fruit for eating and serving. Nothing could be simpler: just barely cover the fruit with boiling water; wait ten minutes and serve or use in a favorite recipe.

APPLES

Choose Granny Smith, Jonathan, McIntosh, Rome Beauty, Winsap or any tart, firm-textured apple. Wash; peel; and core. Cut into 1/2 to 3/4-inch slices or rings. Pretreat by dipping. Dry at 130-135°F until pliable. Use as a snack, for applesauce or in baked goods, like pies, cobblers or crisps. Water content 84%.

APRICOTS

Choose Blenheim/Royal, Tilton or any firm, ripe apricot with a deep yellow to orange color. Wash; cut in half; remove pits. Pretreatment by dipping is optional. Dry at 130-135°F until pliable with no moisture pockets. Use as a snack, in meat dishes, salads or baked goods. Water content 85%.

BANANAS

Choose Cavendish or Martinique or any large, slightly brown speckled yellow variety. Peel and cut into 1/2 to 3/4-inch slices. Pretreatment by dipping is optional. Dry at 130-135°F until pliable to crisp. Use in trail mixes, cookies, cakes, breads, on cereal or as a snack. Water content 76%.

BLUEBERRIES

Choose large, firm blueberries with deep blue color. Wash and remove stems. Dip in boiling water for 30 seconds to remove waxy coating. Blueberries dried without boiling first have a puffy appearance. Dry at 130°-135°F until leathery. Use like raisins in baked goods. Water content 83%.

CHERRIES

Choose sweet varieties (Bing, Lambert, Napoleon, Royal Ann) or sour varieties (Early Richmond, Montrnorency). Wash; cut in half; remove pits. Dry at 165°F for 2 to 3 hours; then at 135°F until leathery, but slightly sticky. (Note: Cherries may be left whole but will take longer to dry.) Use sweet cherries as a snack or like raisins in baked goods. Use sour varieties in baked goods, like pies and cobblers. Water content: Sweet 80%, Sour 84%.

CITRUS PEEL

Choose peels from grapefruit, lemon, lime, orange or tangerine. Do not use fruit labeled color added. Wash well to remove surface dirt and pesticides. Cut a thin layer of peel from fruit, avoiding the bitter white portion. Dry at 135°F until crisp. Use as a flavoring in baked goods.

COCONUT

Choose fresh coconut that is heavy and full of coconut milk. Pierce eyes to remove milk, then crack the hard outer shell with a hammer. Remove coconut meat, discarding dark outer skin. Grate or thinly slice. Dry at 135°F until crisp. Use in pies, cakes, candy, trail mixes. Water content 51%.

GRAPES

(Home-dried raisins) Choose Thompson seedless or red seedless varieties. Wash; remove stems; and leave whole. Dip in boiling water for 30-60 seconds to "check" skins. Dry at 130M35T until pliable with no moisture pockets. Use raisins in baked goods or as a nutritious snack. Water content 81%.

NECTARINES

Choose bright looking plump fruit with an orange-yellow color between red areas. Wash; cut in half; remove pits. Cut into 1/4 to 1/2-inch slices. Pretreatment by dipping is optional. Place on drying trays skin side down. Dry at 130°-135°F until pliable with no moisture pockets. (Use as a snack or in baked goods. Water content 82%.

PEACHES

Choose either Clingstone or Freestone varieties. Peaches must be firm and ripe with no green color. Wash peaches; dip in boiling water for one . minute, then in cold water, to loosen skins. Remove pits; cut into 1/2-inch slices or circles. Pretreat by dipping. Dry at 130°-135°F until pliable with no moisture pockets. Use as a snack or in baked goods, salads, desserts. Water content 89%.

PEARS

Choose Bartlett or other summer or winter varieties. Allow pears to ripen at home before drying. Wash; peel; and core. Cut into 1/2-inch slices, quarters or halves. Pretreatment by dipping is optional. Dry at 130°- 135°F until leathery with no moisture pockets. Use as a snack or in baked goods. Water content 83%.

PINEAPPLE

Choose only fully ripe pineapples with a yellowish-brown shell and no decayed bottoms. Wash; peel; remove eyes; and core. Cut into 1/2-inch slices. Dry at 130°-135°F until leathery, but not sticky. Use as a snack or in baked goods and granolas. Water content 86%.

PLUMS

Choose any fully ripe sweet plums. Wash; cut in half; remove pits. Cut into 1/4 to 1/2-inch slices. Dry at 130°-135°F until pliable. (Use as a snack, in puddings, muffins or breads. Water content 87%.

PRUNE PLUMS

(Homemade prunes)
Remember all prunes are plums, but not all plums can be prunes. Choose varieties such as California French, Stanley, Imperials and Italian. Ripe prune plums are slightly soft with a Sweet flesh. Wash; cut in half; remove pits. "Pop the backs" to increase surface area. Dry skin side down at 130°-135°F until pliable with no moisture pockets. (Use in breads, stuffings, salads, or as a snack. Water content 79%.

STRAWBERRIES

Choose ripe, juicy, fully red berries. Gently wash; remove caps. Cut into 1/2-inch slices. Dry at 130°-135°F until pliable to crisp. Use in puddings, yogurt, desserts or as a snack.

NOTE: Strawberries do not rehydrate well. Water content 90%.

MAKING FRUIT LEATHER

Fruit leather is pureed fruit dried and rolled into a chewy fruit taffy. It's a delicious, nutritious snack for lunch boxes, after school snacks or to tote along anywhere.

Apples, apricots, berries (all kinds), cherries, nectarines, peaches, pears, pineapple and plums make excellent fruit leathers. Be sure to remove excess seeds from berries. Bananas are wonderful blended with other fruits for a smooth, naturally sweet finished product. Fresh fruit in season has the best flavor, but don't overlook canned or frozen fruits any time of the year.

To make leather, wash fruit, cut away blemished areas, peel, if necessary, remove pits or seeds. Puree in a blender until smooth. If excessively thick, thin with a little water or fruit juice. Add a tablespoon of honey or corn syrup if the fruit is tart, or if desired. Spices or flavorings may be added at this time. Fruits that oxidize (apples, cherries, nectarines, peaches and pears) can be heated at about 190°F and then allowed to cool before proceeding to the dehydrator. Cover drying trays with a heavy food grade plastic wrap or use specifically designed sheets that come with most dehydrators. Spread the puree evenly, about 1/8-inch thick in the center to 1/4-inch thick at the edges. Dry at 135T until it feels pliable and leather-like. Check center to be sure there are no sticky spots. Roll, jelly-roll style, while still warm; cut in pieces; and then seal securely in plastic wrap. Store the fruit leather in home canning jars for long-term storage.

~ MAKING BEEF JERKY

Jerky is raw meat or fish which is salted or marinated and then dried. Although most any kind of meat (lamb, pork, poultry or game) or fish may be used, beef jerky is the easiest with the most reliable results. Choose any very lean cut of beef; flank, round and sirloin tip are excellent choices. Rump, if it is lean, is a good choice. (Use only a commercial or homemade electric food dehydrator. Do not attempt to dry meat in the sun for risk of spoilage and contamination.

Freeze meat slightly to aid in slicing. Cut beef in strips 1/8-inch thick across grain for a tender, but slightly brittle finished product, or with the grain for a chewy end product.

The meat must be "cured"; that is, treated in such a way to prevent spoilage. Dry cures are salt and seasonings rubbed on the meat surface. Brine "cures" are marinades or liquid season-

ing mixtures in which the meat is soaked for a period of time.

Dry in an electric dehydrator at 145T. If fat droplets appear during the drying process, blot with a paper towel. To test a slice of meat, allow to cool. It should bend, but not break.

If the finished jerky is dry enough, it should be stored at room temperature in airtight containers such as home canning jars. If the finished jerky is slightly moist, it should be placed in plastic freezer containers and frozen, if there is too much moisture, jerky may become moldy. If there is too much fat, it may become rancid more rapidly. Beef jerky is an excellent source of protein, iron, phosphorus and ribo-flavin. One pound of beef will provide four ounces of jerky.

BARBECUED BEEF JERKY

3 pounds lean beef (flank, round or sirloin tip)
1 cup catsup 1/2 cup red wine vinegar 3/4 cup brown sugar
2 tablespoons Worcestershire sauce
2 teaspoons dry mustard
1 teaspoon onion powder
1 teaspoon salt 1/4 teaspoon cracked pepper Dash of hot pepper sauce Cut beef into strips 1/2-inch thick. Combine all marinade ingredients in a large glass baking dish. Add strips of beef, cover and refrigerate overnight. Drain beef slices. Dry in an electric dehydrator at 145°F until pliable. Package in home canning jars, food-grade plastic bags or seal-by-heat food storage bags.

SOY JERKY

3 pounds lean beef (flank, round or sirloin tip) 3/4 cup soy sauce 1/4 cup Worcestershire sauce 1/4 cup brown sugar 1 teaspoon onion powder 1 clove garlic, crushed 1/2 teaspoon cracked pepper 1/4 teaspoon liquid smoke (optional) Cut beef into strips 1/2-inch thick. Combine marinade ingredients in a large glass baking dish. Add strips of beef, cover and refrigerate overnight. Drain beef slices. Dry in an electric dehydrator at 145°F until pliable. Package in home canning jars, food-grade plastic bags or seal-by-heat food storage bags.

DRIED APPLE PIE

3/4 pound dried apples 1 quart apple cider 1/2 cup sugar
3 tablespoons cornstarch or flour 1/2 teaspoon cinnamon 1/4 teaspoon nutmeg
2 tablespoons butter or margarine
9-inch pastry for double-crust pie
Combine apples and cider; simmer for 30 minutes until soft but not mushy. Drain apples, reserving 1/4 cup cider. Cool. In a large bowl, combine sugar, cornstarch and spices. Add apples and toss gently. Add the reserved 1/4 cup cider and toss again. Place apple mixture in a 9-inch pie plate lined with an unbaked pie shell. Dot with butter. Cover with pastry; crimp edges; and cut several steam vents. Bake pie on baking sheet in bottom of a preheated 425°F oven for 15 minutes. Reduce heat to 350°F and bake 30 minutes more.

FRUIT CRISP DESSERT

3 cups dried fruit (apples, apricots, cherries, peaches or pears) 3 cups boiling water 1/2 cup flour 1/2 cup butter or margarine, cut in small pieces 3/4 cup brown sugar 1 teaspoon cinnamon 1/4 teaspoon nutmeg 1/2 cup regular or quick oats 1 tablespoon cornstarch 1 tablespoon sugar Cut dried fruit into small pieces. Cover with boiling water and let stand 30 minutes. Preheat oven to 350°F. Butter a square baking pan 8x8x2. Make a crumb topping by combining flour, butter, sugar, cinnamon and nutmeg. Add oats to mixture. Combine cornstarch and sugar; sprinkle over reconstituted fruit; mix well. Place fruit in buttered pan. Cover with crumb topping. Bake in preheated 350°F oven for 30 minutes, or until bubbly at edges.

STEWED FRUIT

3 cups dried fruit (apples, apricots, cherries, nectarines, peaches, pears, pineapple and prunes)
2 cups boiling water 1/4 cup lemon juice
1 lemon, sliced
2 cinnamon sticks 1/2 cup honey
Pour boiling water over dried fruit. Let stand about 15 minutes. Add lemon juice, lemon slices and cinnamon sticks. Simmer 20 minutes. Remove cinnamon sticks. Stir in honey.

PEACH AND PINEAPPLE JAM

1 pound dried peaches
Peel of 1/2 orange
1/2 cup chopped orange pulp (about 1 large)
2 1/2 cups water 3/2 cups sugar
1 1/2 cups canned crushed pineapple with juice
1/4 teaspoon salt
1/4 cup ginger Rinse, drain and cut peaches into small pieces. Cut orange peel into 3 pieces. Cover fruit and peel with the 2 1/2 cups water; let stand overnight. Put fruit mixture in a large sauce pot Add the remaining ingredients and bring the mixture to a rolling boil, stirring occasionally until mixture thickens. Discard the orange peel. Skim foam if necessary. Pour hot into hot jars, leaving 1/4-inch head space. Adjust caps. Process 10 minutes in boiling water bath. Yield: about 6 half pints.

APRICOT LITE JAM

2 cups dried apricots 1 1/2 cups crushed pineapple,
unsweetened (if using canned, drain)
1/4 cup chopped orange pulp (about 1 large)
2 tablespoons lemon juice 3/4 cups sugar
Cover apricots with cold water and let soak overnight. Simmer apricots in soaking water, uncovered, until tender. Mash with a potato masher or in a food processor. Add pineapple, orange, lemon juice and sugar to apricot mixture. Simmer until sugar has dissolved, stirring frequently; then cook over high heat until thick, about 20-30 minutes. Skim foam if necessary. Pour hot into hot jars, leaving 1/4-inch head space. Adjust caps. Process 10 minutes in boiling water bath. Yield: 6 half pints.

BANANA NOT BREAD

1 cup dried banana chips or pieces $\frac{1}{4}$ cups flour
 $\frac{2}{4}$ teaspoons baking powder $\frac{1}{2}$ teaspoon salt
 $\frac{1}{3}$ cup shortening
 $\frac{1}{4}$ cup sugar
2 eggs, slightly beaten $\frac{1}{2}$ cup chopped pecans or walnuts Rehydrate bananas in 1 cup water. Let stand 1 hour. Grease a $9 \times 5 \times 3$ loaf pan. Sift together dry ingredients. Cream shortening and sugar. Add dry ingredients. Stir in eggs, bananas and nuts until just blended. Pour batter into greased pan. Bake in 350°F oven for 1 hour or until done. Cool.

PRUNE BARS

3 eggs
1 cup sugar
1 cup flour
1 teaspoon baking powder $\frac{1}{4}$ teaspoon salt $\frac{1}{4}$ teaspoon cinnamon
1 teaspoon vanilla
2 cups chopped dried prunes or dates
1 cup chopped walnuts
Powdered sugar
Grease and flour 9×13 inch baking pan. Beat eggs until light; gradually add sugar. Sift together dry ingredients. Blend into egg mixture; continue mixing until very light. Stir in vanilla, dried fruit and walnuts. Pour batter into prepared pan. Bake in preheated 325°F oven for 25 minutes. When cool, cut into bars and sprinkle with powdered sugar.

GRANOLA

4 cups uncooked regular or quick oats
 $\frac{1}{2}$ cup wheat germ
1 cup coconut
1 cup slivered almonds
1 cup sunflower seeds
 $\frac{1}{2}$ cup honey $\frac{1}{2}$ cup brown sugar $\frac{3}{4}$ cup vegetable oil
1 teaspoon vanilla
1 teaspoon cinnamon
 $\frac{1}{4}$ teaspoon salt
1 cup raisins

Combine all ingredients, except raisins, until well blended. Spread on a shallow baking sheet and bake at 300°F for 25-30 minutes, stirring every 10 minutes. Mixture may also be dried in an electric dehydrator at 145°F for about 3 hours, or until mixture is crunchy. Stir in raisins.

TRAIL MIX

$\frac{1}{4}$ cup each: almonds, dried apples, dried apricots, dried banana chips, coconut flakes, dried pears, dried pineapple, raisins and sunflower seeds.
Cut fruit into $\frac{1}{2}$ -inch pieces. Combine all ingredients; mix well. Store in home canning jars or plastic food bags. Makes $4\frac{1}{4}$ cups.

GREEN BEANS WITH HAM

2 cups dried green beans $2\frac{1}{4}$ cups boiling water 2 tablespoons butter or margarine
 $\frac{1}{4}$ cup chopped onion
 $\frac{1}{4}$ cup chopped celery
 $\frac{1}{4}$ cup diced cooked ham
 $\frac{1}{2}$ teaspoon pepper Salt (optional)
Reconstitute dried green beans in $2\frac{1}{2}$ cups boiling water. Let stand about 1 hour. In a large sauce pot, melt butter, saute onions and celery until soft; do not brown. Add ham and heat gently for 2-3 minutes. Add green beans and liquid. Simmer, covered, for about 30-40 minutes. Additional water may be added. Season with pepper and salt if needed. Serves 4.

VEGETABLE BEEF SOUP

1 large soup bone with meat, or two $10\frac{3}{4}$ ounce cans beef broth
2 cups dried mixed vegetables (carrots, peas, corn, potatoes, green beans, onions, etc.)
2 cups boiling water
1 cup tomato puree, sauce or whole tomatoes, crushed
1 teaspoon salt
1 beef bouillon cube
1 tablespoon parsley $\frac{1}{4}$ teaspoon pepper $\frac{1}{4}$ cup rice, barley or soup pasta
Water
Cover soup bone with water; bring to a boil; reduce heat; and simmer, covered, 1 to 2 hours. Meanwhile, rehydrate vegetables in 2 cups boiling water for up to 2 hours. Remove soup bone; cut off meat; and set aside. Measure out 3 to 4 cups of stock, or use canned broth. Combine beef stock, meat pieces, tomato puree, bouillon cube and seasonings; bring to a boil; reduce heat; and simmer 30 minutes. Add reconstituted vegetables and $\frac{1}{4}$ cup rice, barley or soup pasta. More water may be added to soup if too thick. Simmer about 1 hour, or until vegetables are tender. Serves 6.

CORN CHOWDER

1 cup dried corn 1/4 cup
diced bacon 1/4 cup diced
onion 1/4 cup diced celery 1/4
cup diced green pepper
1 cup raw, peeled, diced potato
2 cups water 1/4
teaspoon salt 1/4
teaspoon pepper 1/4
teaspoon paprika
2 cups milk

Chives

Rehydrate corn in 2 cups water. Let stand about 2 hours. Fry diced bacon until crisp. Remove bacon; set aside. Saute onions, celery and green pepper in bacon drippings until golden brown. Add potatoes, water, salt, pepper and paprika; simmer about 45 minutes. Add milk and rehydrated corn and liquid. Simmer gently for 30 minutes. Do not boil. Add cooked bacon. Garnish with chopped chives.

AU GRATIN POTATOES

3 cups dried sliced potatoes
3 cups boiling water 1 1/4
cups grated cheddar or
Colby cheese
3/4 cup milk, heated ;,,
1 teaspoon salt 1/2
teaspoon pepper Butter or
margarine Paprika
Butter a 2-quart casserole. Place dried potatoes in a large bowl. Cover with boiling water and let stand 2 minutes. Add 1 cup grated cheese, milk, salt and pepper. Stir gently. Pour into buttered casserole. Bake, covered, at 375°F for about 35 minutes. Remove cover, add remaining 1/2 cup cheese; sprinkle with paprika; and continue baking 25 more minutes, or until liquid is absorbed and potatoes are tender.

MIXED VEGETABLE

QUICHE

1/2 cup dried mixed vegetables (corn, peas, green beans, onions, carrots, etc.)
2 cups milk or cream
3 eggs
1/4 teaspoon salt
1/2 teaspoon pepper
1/2 cup shredded Swiss cheese 9-inch
pastry for single-crust pie Rehydrate
mixed dried vegetables in 1/2 cup boiling
water. Let stand 1 to 2 hours or until
vegetables are soft. Drain. Beat together
cream, eggs, salt and pepper. Stir in
mixed vegetables. Pour into a prepared
pie shell. Top with Swiss cheese. Bake at
375°F for 35-40 minutes or until tight
golden brown and filling is set.