

SAVE THESE INSTRUCTIONS

NOTE: This appliance has a polarized plug (one blade wider than the other). To reduce the risk of electrical shock, this plug will fit on a polarized outlet only one way. If the plug does not fit fully into the outlet, reverse the plug. If it still does not fit, contact a qualified electrician. Do not attempt to defeat this safety feature.

Short Cord Instructions – a short power supply cord is provided to reduce the risk resulting from becoming entangled in or tripping over a longer cord. Extensions cords may be used if care is exercised in their use. If an extension cord is used, the marked electrical rating of the cord should be at least as great as the electrical rating of the appliance. The longer cord should be arranged so that it will not drape over the tabletop where it can be pulled on by children or tripped over unintentionally.

Dehydrator Use and Care

Trays/Base

Your dehydrator trays are easy to clean. Simply soak in warm water with a mild detergent for several minutes. A soft-bristle brush will loosen food particles that resist softening by soaking. Don't clean any parts with scouring pads, abrasive cleaners, or sharp utensils, as they tend to damage the surface. Trays/base can be washed on the top rack of your dishwasher if you remove them before the drying cycle.

CAUTION: Remove trays/base before the beginning of drying cycle of your dishwasher.

Power Head Unit

Use a damp soft cloth or towel to remove any dried food residue from the power head unit. Avoid dripping any water or other liquid into electrical parts. **CAUTION: DO NOT IMMERSE POWER UNIT IN WATER OR OTHER LIQUID! Do NOT remove any parts from the power head unit!**

CAUTION: Be sure power head unit is unplugged before cleaning.

Precautions

Follow these safety rules when dehydrating food:

- When drying liquids, sauces or purees, use a Fruit Roll sheet, available from NESCO® /American Harvest®.
- When drying jerky with a Power Head Unit located on bottom, place a Fruit Roll sheet on the bottom tray. The Fruit Roll sheet will catch drips and make cleaning easier.
- Wash hands thoroughly prior to handling food.
- Clean all utensils and containers with a mild solution of detergent, bleach and water before using.
- Make sure all countertops and cutting boards are thoroughly cleaned in the manner above before using. Wooden or plastic cutting boards should be thoroughly disinfected.
- Keep foods in the refrigerator before preparing for drying. Store dried foods in refrigerator or freezer.
- After opening sealed containers of dried food, use food as soon as possible.
- Store opened containers of dried food tightly sealed in the refrigerator to maintain freshness and quality.
- Do not spray vegetable oil directly onto surface of trays.
- Do not dehydrate foods that have been prepared with or marinated in alcohol.
- Trays are only intended to be used with your NESCO® /American Harvest® Food Dehydrator. Do not use trays either in a conventional oven or with any other appliance.
- Always use at least 4 trays when drying in your dehydrator, even if tray(s) are empty.

Service

Should you experience any problems with your dehydrator, please call Customer Satisfaction at NESCO® /American Harvest® at 1-800-288-4545.

General Drying Guidelines

Certain varieties of produce, the humidity in the air, and even methods of food handling make quite a difference in the drying time and quality of the dried product.

- Experiment with different drying temperatures, thickness of produce, pre-treatment versus no pre-treatment and different re-hydration methods. You will determine what works best for your particular needs and preferences.
- To save nutrients and produce a quality product, it is necessary to work fast preparing foods to dry. When placed in your dehydrator, they need to dry continuously at the recommended temperatures and times. Do not turn off your dehydrator or leave partially dried food on the trays as it may spoil or develop “off” flavors.
- Spread all foods evenly to dry in single layers. If slices overlap, the areas that are overlapped will take twice as long to dry.
- Do not add fresh produce to a partially dried batch. It will slow the rate of drying for both products. It is possible, however, to combine partially dried foods on to fewer trays.
- Many people have more than one NESCO®/American Harvest® dehydrator. If you have two, it's easy to combine a load from both dehydrators after a few hours and start a new batch in your second dehydrator using the remaining trays.

Selecting Foods To Dry

Select the best quality produce at the peak of ripeness and flavor. Wash carefully to remove debris, dust and insects. Cut away bruised or damaged sections.

Loading Trays

Lay food pieces evenly on trays. Don't overlap food pieces, as this will inhibit drying time. As each tray is loaded, place it on the dehydrator to begin drying.

Drying Time

Because of the unique design of the patented Converga-Flow® system of your NESCO®/American Harvest® dehydrator, you'll be surprised at how quickly most foods dry.

Drying Time (continued)

Drying times may vary, depending on the type and amount of food, thickness and evenness of the slices, percentage of water in the food, humidity, temperature of air, altitude and the model of NESCO® /American Harvest® dehydrator you are using. Drying times may also vary greatly from one area to another and from day to day, depending on the climatic conditions. Keep records to help you predict drying times for specific foods.

Drying Temperature

Fruits, fruit rolls and vegetables should be dried at 130°F to 140°F (55° to 60°C). By drying foods in this temperature range you will minimize the loss of heat-sensitive vitamins A and C. All foods sweat when they begin to dry, the temperature may be set higher than 140°F (60°C) during the first couple of hours of drying. The actual temperature of the food will remain 15°F to 20°F (6° to 8°C) lower than the air temperature for the first couple of hours.

Meats and fish should be dried on the highest temperature setting of your dehydrator. These temperatures also keep bacteria and other spoilage micro-organisms, common to meat and fish, to a minimum during the first stages of drying.

Nuts and seeds are high in oil, and if higher temperatures are used, they will tend to become rancid, developing off flavors. The best temperature is from 90°F to 100°F (30° to 40°C).

Herbs and spices are most flavorful when they first open and should be harvested while very fresh, before they begin to blossom. Because the aromatic oils are very sensitive, temperatures should be 90°F to 100°F (30° to 40°C) for drying. Take care not to load trays too heavily as this will prolong the drying time.

Dried flowers, herbs and spices used for potpourri should be dried at temperatures ranging from 90°F to 100°F (30° to 40°C) to maintain aroma and color.

Packaging

Some pieces may dry in a shorter time than others. The dried food should be removed and placed in an airtight container while allowing the rest of the pieces to remain in the dehydrator until sufficiently dry.

Package all dried foods promptly to prevent contamination and to prevent stickiness and re-hydration caused by humidity. Store dried foods in airtight, moisture proof containers.

Home vacuum packaging devices are ideal for packaging dried foods. They extend the shelf life of dried foods 3 to 4 times.

Since most packaging materials are transparent, store packaged dried foods in a plastic or metal container that will not allow the light to penetrate. Do not store fruits and vegetables together in the same storage container because flavor and moisture may transfer.

Fruit rolls are best if removed while still warm. Wrap in plastic wrap and place in airtight moisture-proof containers for storage.

Onions and tomatoes are especially prone to absorb moisture from the air and should be packaged immediately after removing from the dehydrator.

Testing for Dryness

Food must be monitored during the final stages of dehydrating to prevent over-drying. Over-dried foods lose quality in texture, nutrition and taste. To test for dryness, remove a piece of food, let it cool and feel with your fingers for dryness.

- Fruits are pliable and leathery with no spots of moisture. Tear in half, pinch and watch for moisture drops along tear. If no moisture then it is sufficiently dry for long term storage.
- Fruit rolls should be leathery with no sticky spots.
- Jerky should be tough, but not brittle.
- Dried fish should be tough, but not brittle. If the fish is high in fat it may appear moist due to the high oil content.
- Vegetables should be tough or crisp.

If foods are insufficiently dried, or are exposed to moisture from faulty packaging, they can lose quality and nutrition, and can even mold during storage.

Storage

The storage area should be cool, dry and as dark as possible. The darker and cooler the storage area, the longer the dried foods will last with good quality and nutritive value.

The ideal storage temperature for dehydrated food is 60°F (15°C) to below freezing. The ideal storage place is your freezer or refrigerator, particularly for storing low acid foods such as meats, fish and vegetables.

Drying Fruits

Fruits are ideal to dry because they have a natural high sugar content. They are high in acid (and consequently less prone to spoilage and micro-organisms), and taste delicious! Seasonally, fruit can be obtained in bulk from orchards or farms for considerably lower prices than you may find in the supermarket.



Selection

Fruits picked at their prime have the highest natural sugar content and the best nutritional value. For the best quality product, choose only fresh, ripe unblemished fruits.

Preparation

Wash fruit thoroughly and remove any imperfections. Remove skins (if desired), stems and seeds. Halve or slice in 1/4" to 1/2" circles or slices (a food processor or slicer will speed the slicing and ensure uniform slices, which will allow fruits to dry at the same rate.) Some fruits have a natural protective wax coating such as figs, prunes, grapes, blueberries, cranberries, etc. If you want to dry these fruits whole, dip into boiling water for 1 to 2 minutes (the amount of time needed depends on the thickness and toughness of the skin) to speed dehydration. This makes the skin more porous by removing the natural wax coating and thereby speeds up the drying time. This process is called 'checking.' Small lines appear on the fruit skin allowing moisture to escape but may be too fine to be visible.

Many fruits can be dried in halves with the pits removed. If they are dried with the skins on, be sure to place them skin-side down to prevent fruit and pulp from dripping down through the trays. Check frequently near the end of the drying process and remove pieces as they become dry. To peel or not to peel is a decision only you can make (if the fruit has been artificially waxed, it should definitely be peeled to remove the wax). The skin has nutritional value, but skins tend to be very tough when dried and fruits take longer to dry with the skins on. Try fruits both ways – peeled and unpeeled – then decide for yourself.

Pre-treat if desired and place the fruit into the dehydrator to dry at 135°F (57°C).

Pre-Treatment

Pre-treatment minimizes oxidation, and gives you a superior quality, better tasting product with less vitamin loss. Apples, pears, peaches and apricots are better when pre-treated. They are more appetizing, have a longer shelf life and higher nutritional value. Place cut fruits that tend to brown in a holding solution of ascorbic acid to reduce browning during preparation. Do not keep cut fruit in a holding solution for more than one hour.

Pre-treatment can vary from soaking in fruit juice, ascorbic acid mixtures, syrup blanching, steaming, to sulfating. The results of these methods also vary. Experiment and decide for yourself which one you like best.

Use one of the following methods of pre-treatment:

Natural Pre-Treatment

Fruit juices containing ascorbic acid may be used as a natural pre-treatment to reduce browning. Although there will be some loss of color, pineapple, orange, lemon, or lime juice can be used. Ascorbic acid mixtures, available from your supermarket, can also be used. Follow the directions on the package. Slice fruit directly into juice or ascorbic acid mixture. Soak 5 minutes and place on trays. Fruits can also be dipped in honey or a honey/juice mixture.

Hints and Suggestions

- Place a cup of dried apple slices in the blender with a cup of water for instant apple sauce.
- Strawberries are perfect for malts, shakes and sundaes.
- Cantaloupe and watermelon slices become candy-like when dried.
- Dehydrate lemon and orange slices and powder for use in recipes for grated rind.
- Dehydrate grapes to make raisins that taste better and plump up in recipes better than store-bought raisins.
- Dry bananas 1/4" thick and dip into a glaze of 1/2 cup honey mixed with 1/4 cup water. Drain. Place on trays and dry. For variety add 1/8 teaspoon cinnamon to the glaze before dipping bananas.



Drying Fruit Rolls

Fruit rolls are a favorite snack for young and old alike. It is a chewy fruit product made from puréed fresh fruit, which has been dried and rolled into snack sized pieces. Fruit rolls are easy to make and cost less than those bought at the store.

Selection

Almost any fruit will make an excellent fruit roll. Most fruits can also be combined with others.

Some fruits, such as apples, are high in pectin and fiber, and have an excellent texture when dried. The combinations are limitless. Use your imagination and have fun!

Use fresh fruit in season. You can also use slightly overripe fruits, irregularly shaped fruits, or slightly bruised fruits that would be unsuitable for canning or drying.

Some fruits, such as citrus, should be used in combination with other fruits because they have so much liquid and very little pulp. If you find that a fruit is too runny, combine it with apple, applesauce or a similar fruit that will give it more substance.

When fresh fruits are not available, canned fruits (either sweetened or un-sweetened) can be used. Simply drain the liquid, and pour the fruit into the blender. Applesauce can be taken directly from the container for wonderful fruit rolls. Frozen fruits can also be used, although they tend to be a bit more runny. Simply thaw and follow directions for using fresh fruits.

Preparation

Wash fruits and cut away any bruised or spoiled portions. Purée fruit in a blender until it is very smooth. In some blenders with some fruits, you may want to add a little juice or water to start the blending process.

Fruits generally need no added sweetening, but if fruits are under ripe or particularly tart, you may add light corn syrup or honey. Add 1 or more tablespoons sweetening for each quart of purée, depending on your preference (sugar added to fruit rolls tends to become brittle during storage).

Drying

Place a Fruit Roll sheet on the dehydrator tray and wipe lightly with a vegetable oil to prevent sticking. Purée should be about 1/4" to 3/8" thick and evenly spread. Dry at 130°F – 140°F (55°C – 60°C) until fruit feels leather-like and is pliable, about 4 to 8 hours.

Storage

Remove the fruit roll while it is still warm, roll, cut into smaller size pieces (if desired) and wrap in plastic wrap. Individually wrapped pieces of fruit leather should be stored in larger airtight and moisture proof containers.

Fruit Drying Chart

Expect a variance in the time needed to dry different fruits. Drying times are affected by the size of the load, fruit thickness and the moisture content of the food itself. The guidelines are general. For more accurate drying times, keep records of your own drying experiences.

Food	Preparation	Average Drying Time	Uses
Apples	Pare, core, cut in 3/8" Pre- treat	4-10 hrs.	Applesauce, pies, cobblers, rings, snacks, breads and cookies
Apricots	Cut in half, remove pit and cut in quarters. Pre-treat	8-16 hrs.	Desserts, muesli, meat dishes, pies and sauces
Bananas	Peel, cut in 3/8" slices or divide lengthwise	6-12 hrs.	Snacks, baby food, granola, cookies, and banana bread
Blueberries	Wash and remove stems. Dip in boiling water until skins crack.	10-18 hrs.	Breads, baked goods, snacks, ice cream, yogurt
Canned Fruit	Drain well. If small, place on mesh screen.	6-12 hrs.	Snacks, breads, granola
Cherries	Wash, remove stems and pit	18-26 hrs.	Breads, baked goods and snacks
Citrus Fruits	Peel, if desired. Slice 3/8" thick	6-12 hrs.	Flavorings when powdered
Cranberries	Wash and remove stems. Dip in boiling water until skins crack.	10-18 hrs.	Breads, baked goods, snacks ice cream, yogurt
Coconut	Remove dark outer skin, slice 3/8" thick.	3-8 hrs.	Cakes, cookies, desserts and granola

Fruit Drying Guidelines (continued)

Food	Preparation	Average Drying Time	Uses
Figs	Remove stems and halve	8-15 hrs	Fillings, cakes, puddings, breads and cookies
Grapes	Leave whole, remove stems (if blanched)	10-36 hrs. 6-10 hrs.	Raisins; use in baked goods, cereals and snacks
Kiwi	Peel, slice 3/8" to 1/2" thick	5-12 hrs.	Snacks
Lemon Powder	Zest of Rind	8-12 hrs.	Seasoning rubs, marinade
Mangos	Remove skin, slice 3/8" thick from seed	6-16 hrs.	Snacks, cereals and baked goods
Melons	Remove skin and seeds. Slice 1/2" thick	8-20 hrs.	Snacks
Nectarines	Quarter or slice 3/8" to 1/2" thick. Pre-treat	6-16 hrs.	Snacks, desserts and baked goods
Oranges, limes, lemons	Slice 1/4" thick	2-12 hrs.	Crafts, snacks, baking
Peaches	Peel if desired. Halve or quarter. Pre-treat.	6-16 hrs.	Snacks, breads, cobblers, cookies and granola
Pears	Peel, core, and slice 3/8" thick. Pre-treat	6-16 hrs.	Snacks, breads, cookies, fritters and granola
Pineapple	Peel, core, slice 3/8" to 1/2" thick	6-12 hrs.	Snacks, baked goods, baked granola
Plums Prunes	Halve or quarter and remove pit	8-16 hrs.	Snacks, cookies, muffins, bread and granola
Rhubarb	Slice in 1" lengths. Steam until slightly tender	6-14 hrs.	Pies, tarts and other desserts
Strawberries	Halve or slice 1/2" thick	6-12 hrs.	Snacks, cereals, and baked goods

Drying Vegetables

Some vegetables are quite good dried. Others lose their appeal and are better frozen or fresh. Some vegetables are far better frozen than dried, if you must preserve them. Vegetables have a low acid and sugar content that makes them more subject to spoilage, and tend to have far shorter shelf life than dried fruits. Packaging and ideal storage conditions are key elements to producing dried vegetables which will taste as good in December as they did from your Summer garden!



Selection

Choose fresh, crisp vegetables for a high quality dehydrated product. Just like fruits, vegetables should be picked ripe and dried as soon as possible to minimize loss.

Preparation

Wash vegetables thoroughly and remove any blemishes. Peel, trim, core, and/or slice vegetables.

Blanching

Most vegetables must be blanched, either steaming over boiling water or in the microwave oven to slow the enzyme action which will continue during drying and storage.

Note: Blanching softens the cell structure, allowing the moisture to escape more easily and also allows vegetables to rehydrate faster. There is no need to blanch onions, garlic, peppers, and mushrooms. Herbs also are not blanched. Water blanching is not recommended because of the loss of water-soluble vitamins and minerals.

Steam Blanching

Use a commercial steamer or a pan with a tight fitting lid and a steaming rack. Bring about 1 inch of water to a brisk boil and drop in sliced vegetables. Cover. Steam until vegetables are heated completely through, but not cooked. This is usually about 1/3 of the time required to cook the vegetable. Vegetables should still be crunchy. Drain in steamer rack and place immediately on dryer trays.

Microwave Blanching

A microwave oven is ideal for blanching vegetables. Prepare them in the same manner as for steam blanching. Place them in a microwave-safe dish, cover and cook on high for about 1/2 of the time required to completely cook the fresh vegetable. Depending on the age and design of your microwave, you may want to stop the cooking half-way through and stir the vegetable to achieve a more even blanching.

Drying

Load blanched vegetables onto drying trays, making sure that air can move freely between the pieces. For vegetables, such as corn or peas, that tend to clump together, stir occasionally to allow air to reach all of the pieces.

Vegetables are dried until they are crisp, tough, or brittle. Package immediately after drying to prevent absorption of moisture from the air. Usual drying temperature for vegetables is 130°F to 145°F (55° to 63°C).

Hints and Suggestions

CARROTS

to save time grating, dry carrots for salads, carrot cake or coleslaw.

GREEN PEPPER, ONION, CELERY, CHIVES, ETC.,

chop and dry in a one-day effort for use instantly all year!

GREEN BEANS, WAX BEANS & GREEN PEAS

best when used in soups, stews or casseroles.

ONION POWDER

dry the whole vegetable slice until crisp, then either powder or chop in blender for chopped onions.

TOMATO SLICES

use for color and crunch when crumbled over a tossed salad. They rehydrate well in soups, stews and casseroles. Tomato leathers can be powdered and used as instant soup, sauces and paste.

Add different amounts of water to your powder mixture to make:

Tomato paste = 1 tsp. powder, 1 tsp. water

Tomato sauce = 1 tsp. powder, 3 tsp. water

Tomato soup = 1 tsp. powder, 1 tsp water,
2 tsp. cream

Tomato juice = 1 tsp. powder, 1/2 c. water

Adjust amount of water to taste for soup and juice.



Vegetable Drying Guidelines

Vegetables will also vary in their drying times. Blanching decreases drying times, but not all vegetables are blanched. Again, the average drying times in the following table are general and depend on different variables. For more accurate times, keep records of your own specific experiences.

Food	Preparation	Average Drying Time	Uses
Artichoke	Cut hearts into 1/8" strips. Blanch.	6-12 hrs.	Marinate or dip in batter and fry
Asparagus	Wash and cut into 1" pieces. Blanch.	3-10 hrs.	Rehydrate, serve in cream sauce
Beans Green/Wax	Remove ends, cut into 1" pieces. Blanch.	6-12 hrs.	Stews, soups and casseroles
Beets	Steam until tender. Cool and peel. Cut into 1/2" pieces	3-10 hrs.	Soups and stews
Broccoli	Wash, cut as for serving. Blanch.	4-10 hrs.	Soups, quiche or souffles, cream or cheese sauce
Carrots	Peel, cut ends, slice in 3/8" thick or shred. Blanch.	6-12 hrs.	Salads, soups, stews and carrot cake
Cauliflower	Wash, cut as for serving. Blanch.	6-14 hrs.	Soups and stews
Celery	Trim, wash and cut 1/2" slices. Blanch in solution of 1/2 t baking soda to 1 cup water.	3-10 hrs.	Soups, stews, powder for celery salt (add equal parts celery and salt)
Corn	Husk, remove silk and blanch. Remove from cob	6-12 hrs.	Fritters, soups, stews or grind for cornmeal
Eggplant	Peel, slice 1/4" thick. Blanch.	4-14 hrs.	Cream sauces, casseroles, dip in batter and fry

Vegetable Drying Guidelines (continued)

Food	Preparation	Average Drying Time	Uses
Garlic	Separate and peel cloves.	6-12 hrs.	Powder for seasoning.
Mushrooms*	Clean with soft brush, don't wash.	4-10 hrs.	Rehydrate for soups, meat dishes, omelets or frying.
Onions	Remove skins, tops, and root ends. Slice 3/8" thick.	6-12 hrs.	Soups, stews and sauces. Powder for seasoning salt. Package immediately.
Peas	Shell, wash and blanch.	5-14 hrs.	Soups, stews and mixed vegetables.
Peppers	Remove stem & seeds. Cut into 1/2" pieces.	5-12 hrs.	Soups, stews, pizza, meat dishes and seasoning.
Peppers (hot)	Wash, slice or cut in half. Remove seeds if you desire a milder pepper.	3-20 hrs.	Soups, stews, pizza, and seasoning.
Potatoes**	Use white potatoes. Peel and slice 3/8" thick. Blanch. Rinse and dry.	6-12 hrs.	Stews, soups and casseroles.
Tomatoes	Wash and slice 3/8" circles or dip in boiling water to loosen skins, halve or quarter.	6-12 hrs.	Soups and stews. Powder in blender and add water for paste or sauce.*** Dry in roll-up form for pizza sauce.
Zucchini or Squash	Wash, remove ends and slice 3/8" thick or grate. Steam if you plan to rehydrate	5-10 hrs.	Breads, chips with dip, soups and casserole. (1 week shelf life)

* Dry at 90°F for 2 to 3 hrs., then increase temperature to 125°F and dry for remaining time.

** Blanch for 5 minutes or until translucent. If not steamed long enough, they will turn black during drying and storage.

*** For information on rehydrating tomato powder and uses, see page 17.

Drying Jerky

Jerky is a favorite snack for school, lunch, on the trail or just about anywhere! It is made by seasoning lean, raw meat in a salt mixture, then drying it without cooking. The finished product is a protein-rich exercise in chewing and ever so delicious! Jerky also makes a savory broth base for soups and stews.



Meat Jerky

Homemade jerky is much less expensive than jerky slices or sticks purchased at a grocery or convenience store. Most lean meats will yield about 1 pound of jerky for 3 pounds of fresh meat.

Drying Meat

Jerky may be made from a variety of wild game meats, fish and poultry. Use filets of fish and the breast of chicken. When purchasing meats for jerky, choose lean meats with minimal marbling (fat), as fat tends to get rancid during storage. A lean cut of flank steak or round steak makes excellent jerky.

You can make delicious jerky from ground meat, using the NESCO®/American Harvest® Jerky Works™ kit. It's best to use ground round or lean (or extra lean) meat. Season with NESCO®/ Harvest® Jerky seasoning mixes.

When making jerky from pork, chicken or turkey, use precooked and processed meat. Be sure to dry it at the highest temperature setting. After drying, heat it in your oven at a minimum temperature of 165°F (74°C) for at least 30 minutes as a precaution against the risk of salmonella. When you are jerking game meats, freeze the meats for at least 60 days at 0°F (-18°C) before drying as a precaution against any diseases the animal might be carrying. Then thaw meat, add seasonings and press into strips or sticks, and place on trays to dry.

Preparation

With a sharp knife, remove all fat, gristle, membranes and connecting tissue. Cut into strips 1/4" to 3/8" thick and 5" to 6" long. It is easier to slice partially frozen meat for jerky. Cut meat in uniform thickness so it will dry in the same amount of time. Cut strips across the grain to produce jerky that is easier to break apart and chew.

Marinate cut meats in store-bought or your own recipe marinade for 4 to 8 hours in the refrigerator before drying. NESCO®/American® Harvest Jerky seasonings can also be used to marinate by mixing one package of cure, one package of spice/seasoning and 1/4 to 1/2 cup of water per pound of meat. Marinating adds flavor as well as tenderizes. The longer the meat marinates, the more flavorful the jerky. If you use your own recipe, be sure to use a curing spice combination that includes Salt, Sodium Nitrite to prevent bacterial growth during the initial stages of drying. Cure packs can be obtained by calling our Customer Satisfaction at 800-288-4545.

To make jerky from ground meat, choose 85% to 90% lean meat. Beef, venison, buffalo and turkey are the most popular choices. Ground meat jerky is easier to make, dries faster, and is less expensive and easier to chew than jerky slices.

Add one package each of jerky seasoning mix and cure per pound of ground meat. Mix well and form into strips by using our Jerky Works™ Kit or a cookie press. Place on trays and dry.

Easy Homemade Jerky from Lean Ground Meat using the Jerky Works™ Accessory



Mix in
spice and
cure



Fill Jerky
Works™
Jerky gun



Extrude
meat on
tray

ENJOY!

BEEF JERKY MARINADE

Note: Use this recipe for beef, venison or other game meats.

- 1 Lb. sliced meat
- 4 Tbsp. soy sauce
- 4 Tbsp. worcestershire sauce
- 1 Tbsp. tomato sauce
- 1 Tbsp. grated ginger root (optional)
- 1/4 tsp. black pepper
- (cayenne pepper for hotter jerky)
- 1 Tbsp. curry powder (optional)
- 2 Cloves garlic
- OR;
- 1 Packet NESCO®/American Harvest®
Original jerky seasoning.
- 1 Packet jerky cure
- 1/4 Cup water

Marinate the meat for 4 to 6 hours, then drain.
Place on trays to dry.

TERIYAKI MARINADE

1 Lb. sliced meat

1 Cup teriyaki sauce

1 tsp. minced garlic

OR;

1 Packet NESCO®/American Harvest® Teriyaki jerky seasoning.

1 Packet jerky cure²

1/4 Cup water

In bowl, mix all ingredients except meat. Add slices and marinate at least four hours in refrigerator. Remove slices from marinade and let excess drip off, then place on Clean-A-Screen® sheets on dehydrator trays. Be sure strips do not overlap. Dry.

Drying Meat

Meats should be dried at 160°F (71°C). Depending on how thick the meat is cut, how heavily the dryer is loaded, and the humidity, jerky takes from 4 to 15 hours to dry.

Pat jerky with clean paper towels several times as it dries, to remove the oil that accumulates on the top of the jerky. When removing jerky from dehydrator trays, wrap it in paper towels and let it stand for a couple hours prior to packaging. Excess fat will be absorbed in the paper towels and the shelf life will be extended.

Storage

Beef jerky that is stored un-refrigerated will start to go rancid at room temperature after 3 to 4 weeks. Refrigerate or freeze for longer storage or until you are ready to go on a trip or camping. If any ice crystals have formed inside bag, re-package in a dry container. If jerky is dried thoroughly, it will last for several weeks in the outdoors or while traveling. All types of jerky must be dried sufficiently to avoid mold. If mold is found inside a storage bag of jerky, the whole container must be thrown away.

Drying Cooked Meats

If you are drying meats for other purposes than jerky such as for stew, sandwich spreads or stroganoff, the meat should be tender and choice. It must be cooked so it will not be tough and chewy when reconstituted. Using the remainder of a dinner roast or leftover steak saves the step of precooking the meat. Dehydrate those leftovers for snacks, backpacking and camping meals.

The shelf life of dried, cooked meats is 2 to 3 weeks at room temperature. Store in refrigerator or freezer to maintain the best quality until ready for use for backpacking or camping. They will stay fresh and tasty for up to 6 months in the freezer.

Drying Fish

Lean fish can be used for jerky. You can also dry fat fish, but it will not keep at room temperature more than a week. Fish jerky should contain about 15% moisture when it is completely dry. It will be pliable and firm. If there is any doubt about the dryness, store in refrigerator or freezer to avoid the risk of spoilage.

Cooked fish may also be dried, although it has different taste than fish jerky. It still makes a nice snack. Re-hydrating cooked fish is not recommended because the resulting product isn't very good.

Selection

Choose fresh fish to dry. If you catch the fish, clean it promptly and keep on ice until you are ready to dehydrate. If you are purchasing fish, make sure it is fresh and not previously frozen. Frozen fish can still be made into jerky, but be aware that the quality is inferior to fresh.

Preparation

Cut fish into 1/4 to 3/8 inch thick strips. Marinate in your own favorite marinade.

When using your own recipe, be sure to include at least 1-1/2 to 2 teaspoons salt per pound of fresh fish. Salt slows the growth of surface bacteria during the initial stages of drying. Marinate for at least 4 to 8 hours in refrigerator so fish will absorb salt and seasonings.

Drying

Dry fish jerky at 130°F to 140°F (55°C to 60°C) until they feel firm and dry, but don't crumble. There should be no moist spots.

Packaging and Storage

Follow guidelines for Packaging and Storage on page 9 and 10. Store dried fish jerky in freezer if it will not be consumed within 2 to 3 weeks.

Drying Herbs

Fresh herbs and spices have a stronger aroma and flavor than commercial dried herbs and spices. They are prized by food lovers and gourmet cooks.



Dried herbs and spices are used more often than fresh because they are more readily available and convenient to use. Although some flavor is lost when they are dried, it becomes more concentrated because so much moisture is removed. Most herbs contain from 70 to 85 percent water. Eight ounces of fresh herbs will yield about one ounce dried.

Gathering Herbs

The flower, seeds, leaves and stems of herbs can all be used for seasoning. Leaves and stems should be gathered early in the morning before the heat of the sun dissipates the flavoring oils.

Leaves should be harvested before plant begins to flower and while still tender. Snip stems at base, taking care to leave sufficient foliage for plant to continue growing. The new leaves at tip of plant have the most concentrated flavor.

Plants usually survive three or four major harvests and, depending on climate, may produce all year round. Cold frames extend growing season and a sunny kitchen window will allow potted herbs to produce all year long.

When plants have begun to flower, a bitter taste develops and leaves are not as aromatic because the energy has gone into producing buds.

The flowers of some herbs may be used for seasoning. They should be harvested when they first open and while still very fresh. Seeds, such as caraway or mustard, are harvested when they are fully mature and have changed from brown to gray.

Preparation

Leaves and stems should be lightly washed under cold running water to remove any dust or insects. Remove any dead or discolored portions.

To dry large-leaved herbs, such as basil and sage, strip leaves from stem, cut in half across the leaf and place on a Clean-A-Screen® lined tray. Cutting allows dry air to get inside the stem and will shorten drying time.

Preparation (continued)

To dry small-leaved herbs, like thyme, place on a Clean-A-Screen® lined tray. This helps keep dried herbs from falling through tray. As small herbs dry, they may fly around inside dehydrator. If this happens, place another screen over drying herbs to keep them in place.

If flowers are to be used in teas, dry them whole. Wash and separate petals, and remove any tough or discolored parts. When seedpods have dried, their outer covering may be removed. Rub seeds between palms of your hands while blowing to remove husks. Place larger seeds on a Clean-A-Screen® sheet. Place smaller seeds loosely on a Fruit Roll sheet. Dehydrate until there is no moisture evident. If seeds are to be used for planting, dry at room temperature to maintain germination ability.

Testing for Dryness

Herbs are dry when they snap and crumble easily. Stems should be brittle and break when bent. Seeds should be brittle and usually need additional drying after they are removed from the seed pods.

To be certain that herbs are sufficiently dry, place in an airtight container for several days. If condensation appears on inside of container, they need further drying.

Packaging

Dark colored jars with airtight lids are ideal for storing herbs. They don't allow light in, which tends to fade and weaken herbs. You can use other containers as long as they exclude air, light and moisture. Air and light result in flavor loss; moisture results in caking and color loss or insect infestation.

Storage

As with other dried foods, dried herbs and seeds should be stored in the coolest place available, preferably below 60°F (15°C), to maintain best flavor. Do not crush or grind until ready to use. Crushing exposes more surfaces to the air, resulting in flavor loss. With proper packaging and good storage conditions, dried herbs, seeds and spices should keep well for 6 – 12 months.

Using Dried Herbs & Spices

Since herbs and spices are usually 3 to 4 times stronger than their fresh counterparts, use conservatively. Their taste should be subtle and not overpowering. The zest of dried herbs is dependent upon storage condition and length of time stored. Sharpness of flavor deteriorates with age. Some herbs, such as mint or basil, lose their flavor more rapidly than others when dried. It may take nearly an equal volume of some dried herbs to replace the amount of fresh called for in the recipe.

Herb Drying Guide

Most herbs may be dried in your NESCO®/American Harvest® dehydrator right on the plant stalk and stem. Seeds and leaves are easily stripped from the plant when dry. Drying temperature should not exceed 90°F to 100°F (35°C to 40°C). Do not dry herbs with fruits and vegetables. Store in glass containers in a cool, dark place to reduce flavor loss. Label clearly before storage because they are difficult to recognize when dry. Do not powder leaves until you are ready to use.

Food	Preparation	Average Drying Time	Uses
Anise Leaves	Rinse in cold water, pat dry.	1-3 hrs.	Soups, stews, sauces and vegetable and fruit salads.
Anise Seeds	Rinse in hot water, pat dry.	2-5 hrs.	Rehydrate, serve in cream sauce
Basil Leaves (break veins and stems to aid drying)	Clip leaves 3 to 4 inches from top of plant just as first buds appear, pat dry.	20-24 hrs.	Italian and Mediterranean dishes, tomato dishes, meat, salads, soups, fish, poultry and egg dishes
Caraway	Clip entire plant. Dip in boiling water, pat dry.	2-5 hrs.	Pork, sauerkraut, rye bread, cheese, vegetables, cookies
Chili Peppers	Rinse and dice, pat dry.	5-12 hrs.	Powder for seasoning
Chives Leaves	Chop, rinse in cold water, pat dry.	20-24 hrs.	Mild onion flavor, use in moist recipes
Cilantro Leaves	Clip with stems. Rinse in cold water, pat dry.	15-18 hrs.	Mexican, Chinese and Mediterranean dishes
Coriander Seeds	Clip entire plant. Dip in boiling water, pat dry.	2-5 hrs.	Sausage, pickling spices apple, and pear dishes
Cumin Seeds	Rinse in cold water, pat dry.	2-5 hrs.	Curries and chili dishes
Dill Leaves	Rinse in cold water, pat dry.	1-3 hrs.	Salads, vegetables potatoes and fish
Fennel	Rinse in cold water, pat dry.	1-3 hrs.	Salads, soups or stews

Food	Preparation	Average Drying Time	Uses
Fennel Seeds	Rinse in cold water, pat dry.	2-5 hrs.	Cakes, cookies, breads
Garlic Clove	Cut in half lengthwise, pat dry.	6-12 hrs.	Salt, powder, recipes
Ginger Root	Rinse, slice 3/8" or grate, pat dry.	2-5 hrs.	Meat, vegetables, cookies & dessert dishes
Ginger Leaves	Rinse in cold water, pat dry.	1-3 hrs.	Soups
Marjoram Leaves	Rinse in cold water, pat dry.	1-3 hrs.	Italian, meat, fish, egg & poultry dishes
Mint Leaves	Rinse in cold water, pat dry.	20-24 hrs.	Sauces, mint jelly & lamb dishes
Mustard Seeds	Rinse in cold water, pat dry.	2-5 hrs.	Corned beef, sauerkraut, salad dressings & cabbage
Oregano Leaves	Rinse in cold water, pat dry.	15-18 hrs.	Italian, Greek, Mexican & tomato dishes
Parsley Leaves/stem	Rinse in cold water, pat dry.	20-24 hrs.	Powder, use leaves for flakes
Rosemary Leaves	Rinse in cold water, pat dry.	20-24 hrs.	Barbecue sauces, poultry, meats, egg dishes, lamb, & vegetables
Sage Leaves/stem	Rinse in cold water, pat dry.	20-24 hrs.	Poultry, pork, lamb, veal & fish dishes
Tarragon Leaves	Rinse in cold water, pat dry.	20-24 hrs.	Sauces, salads, fish & poultry
Thyme Leaves	Rinse in cold water, pat dry.	1-3 hrs.	Meat, fish, poultry dishes green beans, beets, carrots, & potatoes

Rehydrating Dried Food

Rehydrate by placing dried foods in a container (with enough water to cover food) and soaking for 30 minutes to 2 hours. Boiling water rehydrates foods more quickly than cold water or water at room temperature. Fruits or vegetables may also be rehydrated in liquids other than water, including fruit juices, cider, vegetable juices, milk, consomme, etc. Refrigerate these foods while they are soaking to reduce any risk of spoilage. Do not add seasonings, especially salt or sugar, during rehydration because they slow the rehydration process.

Cooking with Dried Food

After rehydrating food, cook it as you would normally. If foods are cooked before they are fully rehydrated, they will cook in a shriveled state and will not be plump. Most fruits and vegetables will rehydrate to about 80% of their fresh state. Consequently, they are a little more chewy than a fresh or frozen fruit or vegetable, even when rehydrated.

Dried food used in cooking will absorb additional liquid, so adjust the recipe accordingly by adding more water.

- vegetables — add one additional cup of water for one cup dried food.
- stewed fruits — add 2 additional cups of water for each cup of fruit, allow to stand for 1 hour and simmer until tender.
- pies or fillings — use 1 additional cup of water per 1 cup of fruit – less, if you desire a thicker consistency.

Note: When using fruits in baking or for ice cream, they may be softened by covering with boiling water and allowing them to stand for 5 minutes. Then chop or blend, depending upon use.

