

# NESCO®

Your Key Ingredient For Food Preservation™

## DEHYDRATOR Instructions



### Healthy Eaters

Make 100% natural snacks: fruit rolls, trail mix and granola



### Outdoor Enthusiasts

Create protein rich jerky for hiking, fishing or hunting



### Gardeners & Cooks

Preserve fresh vegetables, herbs and fruits



### Crafters

Dry flowers, dough art, and make your own potpourri

# NESCO®

Your Key Ingredient For Food Preservation™

*Thank you for purchasing a NESCO® dehydrator. There is nothing better than knowing you are making healthy food for you and your family. We have been building dehydrators and accessories for many years and are excited to share our knowledge and welcome more enthusiasts to the world of food preservation.*

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# IMPORTANT SAFEGUARDS

- This product is designed for household use only -

When using electrical appliances, basic safety precautions should always be followed, including the following:

1. **READ ALL INSTRUCTIONS BEFORE USING THIS APPLIANCE.**
2. Do not touch hot surfaces.
3. To protect against electrical hazards, do not immerse power unit or any part of the dehydrator cord or plug in water or other liquid.
4. Close supervision is necessary when any appliance is used by or near children.
5. Unplug from outlet when not in use and before cleaning. Allow the unit to cool before putting on or taking off parts.
6. Do not operate any appliance with a damaged cord or plug, or after the appliance malfunctions, or has been damaged in any manner.
7. The use of accessory attachments is not recommended by the appliance manufacturer; may cause hazards.
8. Sharp utensils should not be used inside the dehydrator.
9. Do not let cord hang over edge of table or counter, or touch hot surfaces.
10. Do not use outdoors. Always dehydrate indoors on a flat surface to allow sufficient airflow. Never place base on carpet, towel, newspaper, etc., which can block airflow to the bottom of base and cause failure. Never cover entire unit with anything, as that will cause failure. The dehydrator needs an open, breathable space to function properly.
11. Do not place on or near a gas or electric burner. Do not place on top of a glass top stove or inside an oven.
12. Do not use this appliance for other than its intended use.
13. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

## SAVE THESE INSTRUCTIONS

**POLARIZED PLUG:** This appliance has a polarized plug (one blade is wider than the other). To reduce risk of electric shock, plug is intended to fit into 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 try to modify the plug in any way.

**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. Extension 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.

**EXTENSION CORDS:** May be used if care is exercised. 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. A 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.

## Before First Use

Before using your dehydrator the first time, wash the trays and top cover in warm, soapy water, or in the dishwasher on the top rack (remove before drying cycle). **CAUTION:** Do not place the powerhead/blower in water or in the dishwasher. Instead, wipe with a damp cloth.

## Care & Cleaning

### 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. Do not clean any parts with scouring pads, metal objects, abrasive cleaners, or sharp utensils, as they tend to damage the surface. Trays/Base can also be washed on the top rack of your dishwasher if removed before the drying cycle.

### Powerhead Unit:

It is important that the air vents on powerhead remain clean and unobstructed. **UNPLUG POWERHEAD UNIT BEFORE CLEANING.** Use a damp soft cloth or towel to remove any dried food residue from the powerhead unit. Avoid dripping any water or other liquid into electrical parts.

Do not operate powerhead unit alone, or use in any capacity other than the intended use.

**CAUTION: DO NOT OPERATE NEAR OR IMMERSE POWERHEAD IN WATER OR OTHER LIQUID!**

Do NOT remove any parts from the powerhead unit!

# Digital Dehydrators Operating Instructions

## FD-79, FD-1040

Digital control adjustable thermostat offers precise temperature control between 95°F-160°F (35°C-71°C)

### Functions

- **Powerhead Unit** - Contains the motor, heater and controls. **DO NOT IMMERSE IN WATER OR OTHER LIQUIDS!** Wipe with clean, soft, damp dish towel or sponge with light cleaning solution.
- **Temperature Control Knob** - Turn to set desired drying temperature between 95°F-160°F (35°C-71°C)
- **Regular Tray** - Made of durable, BPA-free material.
- **Base** - Supports the trays. Made of durable, BPA-free material.

### How to Use

1. Place base on a sturdy, flat, dry and heat-resistant surface, six inches away from walls, sinks, and other electronic devices.
2. Prepare items to dry and load onto trays. Keep items from blocking center air hole and allow space between items for best results.
3. Stack loaded trays onto base keeping edges of trays properly aligned. **Note: Always use a minimum of four trays when operating, even if empty.**
4. Place the top mounted power unit on top tray.
5. With dry hands, plug the power cord into 120V electrical outlet.
6. Press "Time" button and use arrow keys to set time (15 minute increments only). Unit will turn off when time reaches zero.
7. Press "Temp" button and use arrow keys to set drying temperature, (5°F increments only) between 90°F-160°F (32°C-71°C).
8. Press "Start" to begin dehydrating.
9. Press "Stop" to pause or press and hold to reset time to 0:00.



# Analog Dehydrators Operating Instructions

## FD-61, FD-75, FD-80, FD-1010



### Functions

- **Powerhead Unit** - Contains the motor, heater and controls. **DO NOT IMMERSE IN WATER OR OTHER LIQUIDS!** Wipe with clean, soft, damp dish towel or sponge with light cleaning solution.
- **Temperature Control Knob** - Turn to set desired drying temperature between 95°F-160°F (35°C-71°C)
- **Regular Tray** - Made of durable, BPA-free material.
- **Base** - Supports the trays. Made of durable, BPA-free material.

### How to Use

1. Place base on a sturdy, flat, dry and heat-resistant surface, six inches away from walls, sinks, and other electronic devices.
2. Prepare items to dry and load onto trays. Keep items from blocking center air hole and allow space between items for best results.
3. Stack loaded trays onto base keeping edges of trays properly aligned. **Note: Always use a minimum of four trays when operating, even if empty.**
4. Place powerhead on top tray.
5. With dry hands, plug the power cord into 120V electrical outlet.
6. Set desired drying temperature using temperature control knob.

# Nonadjustable Dehydrators Operating Instructions

## FD-28, FD-37

### How to Use

1. Place base on a sturdy, flat, dry and heat-resistant surface, six inches away from walls, sinks, and other electronic devices.
2. Prepare items to dry and load onto trays. Keep items from blocking center air hole and allow space between items for best results.
3. Stack loaded trays onto base the base tray.  
**Note: this dehydrator requires a minimum of 5 trays to operate properly, even if empty.** The base tray is counted as one of the 5 trays. (You may expand your dehydrator to 7 trays total using NESCO Add-A-Tray® accessories.)
4. Place the top cover on the top tray, insert the blower into the trays and rotate to lock in place.
5. With dry hands, plug the power cord into 120V electrical outlet.
6. Switch power to ON.



# Precautions

## Follow these safety rules when dehydrating food:

- When drying liquids, sauces or purees, use a fruit roll sheet available from NESCO.
- Wash hands thoroughly prior to handling food.
- When drying jerky with a powerhead located on the bottom, place a fruit roll sheet on the bottom tray. The fruit roll sheet will catch drips and make cleaning easier.
- Clean all utensils and containers with a mild solution of detergent 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® food dehydrator. Do not use trays 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.
- When drying meat and dairy products, blot frequently with a paper towel to absorb excess oils.

## Service

Should you experience any problems with your dehydrator, please call NESCO Customer Service at 1-800-288-4545 or email [nescocs@nesco.com](mailto:nescocs@nesco.com).

# General Drying Guidelines

There are no absolutes and quite a few variables in food dehydration. 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 food, pre-treatment versus no pre-treatment and different re-hydration methods to determine what works best for you.
- To save nutrients and produce a quality product, it is necessary to work fast when preparing foods to dry. When placed in your dehydrator, they need to dry continuously at the recommended temps and times. Do not turn off your dehydrator or leave partially dried food on the trays as it may spoil or develop “off” flavors.
- For best results, slice food to a uniform thickness to ensure even drying
- 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.

## 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 any bruised or damaged sections.

## Loading Trays

- Always use 4 trays or more and base when drying.
- Lay food pieces evenly on trays.
- Do not overlap food pieces, as this will inhibit drying time. As each tray is loaded, place it on the dehydrator to begin drying.
- Dry similar types of food.

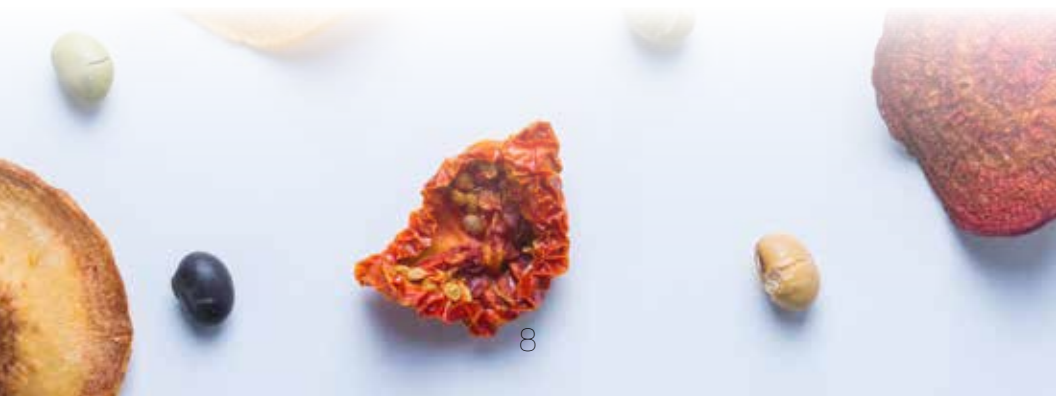


## Drying Time

- See drying charts for general drying times.
- Drying times may vary, depending on the type and amount of food, thickness and consistency of the slices, percentage of water in the food, humidity, air temperature, altitude and the model of 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°C to 60°C) to 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°C to 8°C) lower than the air temperature for the first couple of hours.
- These temperatures also keep bacteria and other spoilage microorganisms, 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°C 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°C 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°C to 40°C) to maintain aroma and color.



## Packaging and Storage

- 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.
- NESCO® Vacuum Sealers are ideal for packaging dried foods. They extend the shelf life of dried foods up to 5 times longer. Visit [nesco.com](http://nesco.com) to see our wide selection of vacuum sealers, bags and rolls.
- Store packaged dried foods in a opaque plastic or metal container that will not allow the light to penetrate.
- Do not store different types of fruits and vegetables together in the same storage container because flavor and moisture may transfer.
- Fruit rolls are easiest to remove while still warm. Lay on plastic wrap and roll, then 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.
- 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 32°F (0°C). Your freezer or refrigerator is the best location, particularly for storing low acid foods such as meats, fish and vegetables.



## Testing for Dryness

Food must be monitored during the final stages of dehydrating to prevent under or over drying. 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. Over-dried foods lose quality in texture, nutrition and taste.

- To test for dryness, remove a piece of food, let it cool and tear in half, pinch to watch for moisture drops along the tear. If no moisture is present, it is sufficiently dry for long-term storage.
- Fruits are ready when pliable and leathery with no spots of moisture.
- 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.

## Labeling and Record Keeping

All dehydrated foods should be labeled with the name of the product, date dried and quantity or weight. Clear labeling allows you to rotate foods to minimize waste and nutrient loss. Record the date dried, quantity, weight before and after, drying time, size of containers, storage temperature and length of time before use.

## 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.

# 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.

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

1. Wash fruit thoroughly and remove any imperfections.
2. Remove skins (if desired), stems and seeds. Halve or slice in 1/4" to 1/2" circles or slices.
3. Some fruits have a natural protective wax coating such as figs, prunes, grapes, blueberries, cranberries, etc.. If the fruit has been artificially waxed, it should be peeled to remove the wax.
4. 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.
5. If fruits are dried with the skins on, be sure to place them skin-side down to prevent fruit from dripping.
6. Dry at 135°F (57°C) and check frequently near the end of the drying process and remove pieces as they dry.



# Drying Fruit Rolls

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.

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. 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

1. Wash fruits and cut away any bruised or spoiled portions.
2. Purée fruit in a blender until it is very smooth.
3. In some blenders with some fruits, you may want to add a little juice or water to start the blending process.
4. Fruits generally need no added sweetening, but if fruits are under ripe or particularly tart, you may add light corn syrup or honey.
5. Add 1 or more tablespoons sweetening for each quart of purée.



## Drying

Place a fruit roll sheet on the dehydrator tray and wipe lightly with vegetable oil to prevent sticking. Purée should be about  $\frac{1}{4}$ " to  $\frac{3}{8}$ " thick and evenly spread. Dehydrate at 130°F to 140°F (54°C to 60°C) for 4-8 hours.

## Storage

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



# Fruit Drying Guidelines

Expect a variance in the time needed to dry 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	Drying Time	Uses
Apples	Pare, core, cut in 3/8" Pre-treat.	4-10 hours	Applesauce, pies, and snacks.
Apricots	Cut in half, remove pit then quarters. Pre-treat.	8-16 hours	Desserts, muesli, pies and sauces.
Bananas	Peel, cut in 3/8" slices or divide lengthwise.	6-12 hours	Snacks, baby food, and granola.
Blueberries	Wash and dry berries. "Blanch" to break skin.	10-18 hours	Breads, ice cream, and yogurt.
Canned Fruit	Drain well. If small, place on mesh screen.	6-12 hours	Snacks, breads, and granola.
Cherries	Wash, remove stems and pit.	18-26 hours	Breads, baked goods and snacks.
Citrus Fruits	Slice 3/8" thick.	6-12 hours	Crafts and garnish.
Cranberries	Wash and remove stems. "Blanch" to break skin.	10-18 hours	Breads, ice cream, and yogurt.
Coconut	Remove dark outer skin, slice 3/8" thick.	3-8 hours	Cakes, cookies, and desserts.
Figs	Remove stems.	8-15 hours	Fillings and breads.
Grapes	Leave whole, remove stems.	10-36 hours (Unblanched) 6-10 hours (Blanched)	Raisins, use in baked goods, cereals and snacks.





Food	Preparation	Drying Time	Uses
Kiwi	Peel, slice 3/8" to 1/2".	5-12 hours	Snacks.
Lemon Powder	Zest of rind.	8-12 hours	Seasoning rubs, marinade.
Mangos	Remove skin, slice 3/8" from seed.	6-16 hours	Yogurt and salsa.
Melons	Remove skin & seeds. Cut 1/2" thick.	8-20 hours	Snacks.
Nectarines	Quarter or slice 3/8" to 1/2" thick. Pre-treat.	6-16 hours	Snacks, desserts and baked goods.
Oranges, limes, lemons	Slice 1/4" thick.	2-12 hours	Crafts, snacks, baking.
Peaches	Halve and Pre-treat.	6-16 hours	Snacks and cobbler.
Pineapple	Peel, core and slice 3/8" to 1/2" thick.	6-12 hours	Snacks, baked goods and granola.
Plums, Prunes	Halve or quarter and remove pit.	8-16 hours	Snacks and muffins.
Rhubarb	Slice in 1" lengths. Steam until slightly tender.	6-14 hours	Pies, tarts and desserts.
Strawberries	Halve or slice 1/2" thick.	6-12 hours	Cereals and yogurt.



# Drying Vegetables

Many vegetables are very good dried; others may lose their appeal and are better frozen or fresh. 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 with success.

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

1. Wash vegetables thoroughly and remove any blemishes.
2. Peel, trim, core, and/or slice vegetables.
3. Blanch if needed.

## 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. Do not blanch onions, garlic, peppers or mushrooms. 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 and steam until vegetables are heated completely through, but not cooked. This is usually about a third of the time required to cook the vegetable. Drain and place immediately on drying trays.

## Microwave Blanching

Prepare them in a similar manner as steam blanching. Place food in a microwave-safe dish, cover and cook on high for about half of the time required to completely cook the fresh vegetable. You may want to stop the cooking half-way through and stir the vegetables to achieve an even blanching.

## Drying

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

Vegetables are dried when they are crisp, tough, or brittle. Package immediately after drying to prevent any absorption of moisture from the air.



## Vegetable Drying Guidelines

Vegetables will vary in their drying times due to type, size and preparation. The average drying times in the guide are general and records of your experiences should be kept.

Food	Preparation	Drying Time	Uses
Artichoke	Cut into 1/8" strip, Blanch.	6-12 hours	Marinate or deep fry.
Asparagus	Cut into 1" pieces, Blanch.	3-10 hours	Soups and stews.
Beans: Green/Wax	Remove ends, cut into 1" pieces. Blanch.	6-12 hours	Stews, soups and casseroles.
Beets	Steam until tender. Cool and peel. Slice to 1/2".	3-10 hours	Soups and stews.
Broccoli	Wash, cut as for serving. Blanch.	4-10 hours	Soups, cream or cheese sauce.
Carrots	Peel, slice into 3/8" thick or shred. Blanch.	6-12 hours	Salads, soups, stews and cake.
Cauliflower	Wash, cut as for serving. Blanch.	6-14 hours	Soups and stew.
Celery	Trim, wash and cut for 1/2" slices. Blanch in solution of 1/2 t baking soda and salt to 1 cup water.	3-10 hours	Soups, stews and celery powder.
Corn	Husk, remove silk and blanch. Remove from cob.	6-12 hours	Soups, stews or grind for cornmeal.
Eggplant	Peel, slice 1/4" thick. Blanch.	4-14 hours	Cream sauces, casseroles, or deep fry.



Food	Preparation	Drying Time	Uses
Mushrooms	Clean with soft brush. Do not wash or blanch.	4-10 hours	Soups or omelets.
Onions	Remove skins, tops, and root ends. Slice 3/8" thick.	6-12 hours	Soups, stews and sauces.
Peas	Shell, wash and blanch.	5-14 hours	Soups, stews and mixed vegetables.
Peppers	Remove stem & seeds. Cut into 1/2" pieces.	5-12 hours	Soups, pizza and seasonings.
Peppers (hot)	Wash, slice or cut in half. Remove seeds if you desire a milder pepper.	3-20 hours	Soups, stews, pizza and seasoning.
Potatoes (white)	Peel and slice 3/8" thick. Blanch. Rinse and dry.	6-12 hours	Stews, soups and casseroles.
Tomatoes	Slice 3/8" thick or blanch to loosen skins, quarter.	6-12 hours	Soups and stews. Powder in blender and add water for paste or sauce.
Zucchini or Squash	Wash, remove ends and slice 3/8" thick or grate. Steam if you plan to rehydrate.	5-10 hours	Breads, chips with dip, soups and casserole. (1 week shelf life).



# Drying Jerky

Homemade jerky is 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.

Jerky can be made from a variety of wild game meats, fish and poultry. When purchasing meats for jerky, choose at least 90% 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 pork, chicken or turkey or use precooked and processed meat. Be sure to dry it at the highest temperature setting. When you are making jerky from game meats, freeze the meat for at least 60 days at 0°F (-18°C) before drying as a precaution against any diseases. Then thaw meat, add seasonings and press into strips or sticks, and place on trays to dry.

## Preparation

1. Remove all fat, gristle, membrane, and connective tissue.
2. Cut into strips ¼" to ½" thick and 5" to 6" long.
3. Prior to dehydrating, marinate cut meats in store-bought marinade or your own recipe for 4-8 hours in the refrigerator.

**Tips:** Cut strips across the grain to produce jerky that is easier to break apart and chew.

Cut meat in uniform thickness so it will dry in the same amount of time.



NESCO® jerky seasonings can also be used to marinate by following the instructions on the seasoning packets. 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 and sodium nitrite to prevent bacterial growth during the initial stages of drying. Cure packs and seasonings can be found at nesco.com. 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. Follow instructions on the seasoning packets. Mix well and form into strips by using a NESCO® jerky gun.

Meats should be dried at 160°F (71°C). Depending on how thick the meat is cut, how heavily the dehydrator 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 in approximately 3-4 weeks. Refrigerate or freeze for longer storage or until you are ready to consume. If any ice crystals have formed inside bag, re-package in a dry container. If jerky is dried thoroughly, it will last for several months.

All types of jerky must be dried sufficiently to avoid mold. If mold is found inside a storage bag of jerky, the entire container must be discarded.

## Drying Cooked Meat

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 cooked roast or leftover steak saves the step of precooking the meat. Dehydrate those leftovers for snacks, backpacking or camping. 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. 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 fatty 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 a different taste than fish jerky. Rehydrating cooked fish is not recommended.

Choose fresh fish to dry. If the fish is freshly caught, 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

1. Cut fish into ¼" to ¾" thick strips.
2. Toss in your favorite marinade. When using your own recipe, be sure to include at least 1½ to 2 teaspoons salt per pound of fresh fish. Salt slows the growth of surface bacteria during the initial stages of drying.
3. Marinate for 4-8 hours in refrigerator so fish will absorb salt and seasonings.

## Drying

Dehydrate fish jerky at 145°F to 155°F (62°C to 68°C) until it feels firm and dry, but does not crumble. There should be no moist spots.

## Packaging & Storage

Follow guidelines for Packaging and Storage on page 9. Store dried fish jerky in freezer if it will not be consumed within a week.



# Drying Herbs

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, they become more concentrated because excess moisture is removed. Most herbs contain 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 the plant begins to flower and while still tender. Snip stems at base, taking care to leave sufficient foliage for the plant to continue growing. The new leaves at the tip of the 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.

## Preparation

To dry small-leaved herbs, like thyme, place on a tray that is lined with a Clean-A-Screen® accessory that is available at [nescocom.com](http://nescocom.com). This helps keep dried herbs from falling through the tray. As small herbs dry, they may fly around inside the dehydrator. If this happens, place another Clean-A-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 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. To be certain that herbs are sufficiently dry, place in an airtight container for several days. If condensation appears on the inside of container, they need further drying.

## Testing for Dryness

Herbs are dry when they snap and crumble easily. Stems should be brittle and usually need additional drying time after they are removed from the seedpods.

## Packaging & Storage

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, color loss or insect infestation.

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 the 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 dried 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 herbs called for in the recipe.

## Herb Drying Guidelines

Most herbs may be dried in your NESCO® 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 dark containers in a cool, dark place to reduce flavor loss. Label clearly before storage because they can be difficult to recognize when dry. Do not powder leaves until you are ready to use.

Food	Preparation	Drying Time	Uses
Anise Leaves	Rinse in cold water, pat dry.	1-3 hours	Soups, stews, sauces and vegetable and fruit salads.
Anise Seeds	Rinse in hot water, pat dry.	2-5 hours	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, rinse pat dry.	20-24 hours	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 hours	Pork, sauerkraut, rye bread, cheese, vegetables, cookies.
Chili Peppers	Rinse and dice, pat dry.	5-12 hours	Powder for seasoning.
Chive Leaves	Chop, rinse in cold water, pat dry.	20-24 hours	Mild onion flavor, use in moist recipes.
Cilantro Leaves	Clip with stems. Rinse in cold water, pat dry.	15-18 hours	Mexican, Chinese and Mediterranean dishes.
Coriander Seeds	Clip entire plant. Dip in boiling water, pat dry.	2-5 hours	Sausage, pickling spices, apple and pear dishes.
Cumin Seeds	Rinse in cold water, pat dry.	2-5 hours	Curries and chill dishes.
Dill Leaves	Rinse in cold water, pat dry.	1-3 hours	Salads, vegetables potatoes and fish.
Fennel	Rinse in cold water, pat dry.	1-3 hours	Salads, soups or stews.
Fennel Seeds	Rinse in cold water, pat dry.	2-5 hours	Cakes, cookies, breads.

*continued on next page*

## Herb Drying Guidelines continued

Food	Preparation	Drying Time	Uses
Garlic Clove	Cut in half lengthwise, pat dry.	6-12 hours	Salt powder, recipes.
Ginger Root	Rinse, slice 3/8" thick or grate, pat dry.	2-5 hours	Meat, vegetables, cookies & dessert dishes.
Ginger Leaves	Rinse in cold water, pat dry.	1-3 hours	Soups.
Marjoram Leaves	Rinse in cold water, pat dry.	1-3 hours	Italian, meat, fish, egg & poultry dishes.
Mint Leaves	Rinse in cold water, pat dry.	20-24 hours	Sauces, mint jelly & lamb dishes.
Mustard Seeds	Rinse in cold water, pat dry.	2-5 hours	Corned beef, sauerkraut, salad dressings & cabbage.
Oregano Leaves	Rinse in cold water, pat dry.	15-18 hours	Italian, Greek, Mexican & tomato dishes.
Parsley Leaves / Stem	Rinse in cold water, pat dry.	20-24 hours	Powder, use leaves for flakes.
Rosemary Leaves	Rinse in cold water, pat dry.	20-24 hours	Barbecue sauces, poultry, meats, egg dishes, lamb, & vegetables.
Sage Leaves /Stem	Rinse in cold water, pat dry.	20-24 hours	Poultry, pork, lamb, veal & fish dishes.
Tarragon Leaves	Rinse in cold water, pat dry.	20-24 hours	Sauces, salads, fish & poultry.
Thyme Leaves	Rinse in cold water, pat dry.	1-3 hours	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, consommé, etc. Refrigerate these foods while they are soaking to reduce any risk of spoilage. Do not add seasonings, especially salt or sugar, during rehydration as 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 slightly 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.

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

## Instructions for Cooking with Rehydrated Foods

1. **Vegetables** - add one additional cup of liquid for one cup of dried food.
2. **Stewed fruits** - add 2 additional cups of liquid for each cup of fruit, allow to stand for 1 hour and simmer until tender.
3. **Pies of fillings** - use 1 additional cup of liquid per 1 cup of fruit, less if you desire a thicker consistency.



# One-Year Limited Warranty

The Metal Ware Corporation warrants the original purchaser that the product will be free from defects in material and workmanship for a period of one year from the date of purchase or delivery. If delivery date occurs after purchase, the warranty begins on the date of delivery, as evidenced by proof of purchase or delivery documentation. Product must be used for personal or sole household usage in accordance with the instructions. Should your product prove defective within one year from date of purchase, contact NESCO customer service team at 1-800-288-4545 or nescocs@nescoc.com with an explanation of the claim. If a viable warranty claim is determined, a customer service member will provide you with the necessary details to have your unit replaced. Under this limited time warranty, we undertake to replace any parts found to be defective at our sole discretion. This limited time warranty is void if the unit is connected to an unsuitable electrical supply or dismantled or interfered with in any way or damaged through misuse. This warranty is not transferable.

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You may register your product on our website but will need to retain a copy of your proof of purchase should a warranty issue arise. We suggest you staple your receipt to this care and use guide.

**[nescoc.com/customer-service/warranty-registration](https://nescoc.com/customer-service/warranty-registration)**

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