

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.



Recipes

BEST BANANA BREAD

Chunks of dried bananas, nuts, and dates make this a delightful breakfast bread.

3/4 cup margarine or butter
 2 cups flour
 1-1/2 cups sugar
 1 teaspoon baking soda
 2 eggs
 1/2 teaspoon salt
 1 teaspoon vanilla
 1-1/2 cups mashed ripe banana
 (4 to 6 medium size)
 1/2 cup chopped dried banana
 1/2 cup chopped pecans
 1/2 cup buttermilk
 1/2 cup chopped dates
 2 Tablespoons brown sugar

Preheat oven to 350°F (175°C). Generously grease and flour 3 small (3" x 5") loaf pans or two medium (3-1/2" x 7-1/2") loaf pans. Cut waxed or parchment paper to fit bottoms and line pans. In a large bowl, cream margarine or butter with sugar. Add eggs and vanilla. Mash bananas in separate bowl with a fork. Add to margarine/egg mixture. In a separate bowl, combine flour, soda, and salt. Stir until well mixed. Add flour to creamed mixture alternately with 1/2 cup buttermilk, blending just until combined. Fold in dried banana chunks, pecans, and dates. Pour into prepared pans. Sprinkle brown sugar over tops of loaves. Bake in preheated oven about 45 minutes, until a wooden pick inserted in center comes out clean. Cool 10 minutes in pan. Remove from pan and cool on a cooling rack. Makes 3 small or 2 medium loaves.

Variation: Add dried pineapple instead of dates

AWESOME BRAN MUFFINS

Make these for breakfast, and pop the extra in your children's lunch box!

1 cup wheat bran
 2-1/2 cups all-purpose flour
 1 cup boiling water
 2-1/2 teaspoons baking soda
 1/2 cup margarine
 1/2 teaspoon salt
 2 cups buttermilk
 1 cup chopped dried apple, dates, raisins or pineapple
 2 eggs, beaten
 1 cup granulated sugar
 1/2 cup chopped walnuts or pecans
 1/2 cup brown sugar, firmly packed
 2 cups wheat bran
 1/4 cup sugar

Preheat oven to 400°F (205°C). Fill 24 muffin pans with muffin liners. Wipe muffin liners with vegetable oil. In large bowl, pour boiling water over 1 cup bran and let stand. Add 1/2 cup margarine to bran/boiling water mixture. Stir in buttermilk, eggs, white and brown sugars and remaining bran. In large bowl, sift together dry ingredients: all-purpose flour, baking soda, and salt. Add chopped dried fruit and stir. Combine with wet ingredients and stir only until dry ingredients are moist. Mixture should be lumpy. Spoon into prepared muffin cups. Sprinkle sugar on tops. Bake at 400°F (205°C) for 20 to 25 minutes. Remove from pan and place on rack to cool. Makes 24 of the best bran muffins you've ever tasted!

Variation: Substitute 1 cup oat bran for wheat bran for an oat taste.

HOMEMADE CHILI POWDER

Add to your favorite Mexican recipe or use in ground meat for tacos.

3 ounces dried chilies (mild peppers such as Anaheim, or a combination of mild and hot peppers)

1 Tablespoon ground cumin

2 teaspoons salt

1 teaspoon ground allspice

1 teaspoon garlic powder

1 teaspoon onion powder

1 teaspoon ground oregano

1/2 teaspoon ground cloves

1 teaspoon ground coriander

Peppers dried in a dehydrator retain their original color and flavor. They may either be dried whole or in halves, skin side down. Hotness and flavor will vary with the chilies used. Removing the seeds will decrease the hotness. Make sure that peppers are completely dry and stored in airtight containers. Remove and discard stems and seeds. Whirl pods in a blender until finely ground. Allow powder to settle. Add remaining ingredients and whirl briefly. Store in an airtight container. Makes 1/2 cup.

HERB MUSTARD

Crush your own dried herbs and add them to any commercially prepared or homemade mustard for an intriguing taste treat.

1 teaspoon dried herbs, such as Basil, Cilantro, Oregano, or Parsley. Finely crushed.

1/2 Cup mustard

Combine herb(s) of choice with mustard, mix well. Cover and store in refrigerator until ready to use.

FAVORITE HERB BLEND

Making culinary dried herb blends is almost as gratifying as growing the herbs themselves.

1 Tablespoon dried Oregano

1 Tablespoon dried Marjoram

1 Tablespoon dried Basil

2 teaspoons dried Summer Savory

1 teaspoon dried Rosemary

1 teaspoon dried Sage

In a glass jar, combine all the herbs together thoroughly. Close the jar with a tight-fitting lid. Use to flavor soups, stews, or vegetable dishes.

BOUQUET GARNI

Thank the French for the term "Bouquet Garni" meaning small bundle of herbs tied together with string (or contained in cheesecloth bag) that is added during cooking to flavor soups, stews or other savory dishes and then removed before serving.

2 Tablespoons dried Parsley

2 Bay Leaves

1 teaspoon dried Rosemary

1 teaspoon dried Thyme

1 teaspoon dried Tarragon

Cut a piece of cheesecloth into a 4-inch square and place the dried herbs in the middle of it. Gather the corners and twist them closed. Tie with string, leave enough at the end to retrieve the bag from the cooking pot.

FRUIT HORS D' OEUVRES

Serve these savory Hors d'Oeuvres at your next party.

24 pieces halved dried fruit

(apricots, peaches, pears, or prunes)

1/8 teaspoon paprika

1/3 cup shredded Monterey Jack cheese

3 ounces cream cheese, softened

1/3 cup shredded sharp Cheddar cheese

3 Tablespoons plain yogurt or sour cream

1/4 cup chopped slivered almonds

Dried fruits should be pliable. If too hard, allow to stand in boiling water 5 minutes to soften. Drain. In small bowl, beat cream

cheese until fluffy. Stir in sour cream, paprika, Monterey Jack and Cheddar cheese and chopped almonds. Spoon 1 teaspoon

filling into pit cavity of each piece of dried fruit. Garnish with parsley.

Makes 24 appetizers.

FRUIT CARAMEL CORN

1 cup butter or margarine

2 cups brown sugar

1/2 cup light corn syrup

6 cups popped popcorn

2 cups finely chopped dried fruit

(pineapple, apples, raisins, prunes, etc.)

1 teaspoon salt

1/2 teaspoon baking soda

1 teaspoon vanilla

Melt butter or margarine in large heavy-bottom pot. Stir in brown sugar, syrup, and salt. Bring to a boil, stirring constantly. Boil 5 minutes without stirring. Remove from heat and stir in soda and vanilla. It foams. Pour over popped corn and mix well. Pour into a shallow 11" x 14" baking pan. Bake in a 250°F (129°C) oven for 1 hour, stirring every 20 minutes. During

last 5 minutes, stir in finely chopped dried fruit. Remove from oven, cool, and break apart. Makes 7 cups caramel corn.

HARVEST GRANOLA

Most often served as a breakfast food, it can also be a snack or an ingredient in desserts, cookies, or main dishes.

5 cups rolled oats

3/4 cup brown sugar, firmly packed

1/2 cup wheat germ

1/2 cup dried apple, chopped

1/2 cup honey

1/2 cup sesame seeds

1 cup raisins

1/2 cup date crystals

1 cup pecans or almonds, chopped

1/3 cup salad oil

1 teaspoon vanilla

3/4 cup margarine, melted

1 teaspoon cinnamon

Mix together very well so that all ingredients are distributed evenly.

Adding dry ingredients to wet ingredients makes a crunchier

granola. Spread onto a Fruit

Roll sheet. Dry at 145°F until crunchy.

Crumble and store in an

airtight container.

ENERGY BARS

Grind Together:

1/3 cup carob chips

1 cup slivered almonds

4 cups dried fruit (pliable)

(apple, raisin, date, pear, peach, apricot, pineapple)

Mix In:

3/4 cup unsweetened pineapple juice

ENERGY BARS (continued)

1/2 teaspoon almond extract
 1/2 cup honey wheat germ
 1 cup carob chips

Mix all ingredients thoroughly. More juice may be needed to allow mixture to stick together. Put onto Fruit Roll sheet. Dry for approximately 14 hours. Cut into small squares and place on unlined tray to finish drying. May be coated with melted chocolate, yogurt coating, or carob to make candy bars. Makes 24 squares.

CUP-OF-VEGETABLE SOUP

This soup cooks in your thermos and is ready to eat by lunch time.

1/3 cup dried vegetable flakes (any combo of tomatoes, peas, onions, broccoli, zucchini, celery, carrots)
 1 Tablespoon bulgur wheat
 1 Tablespoon small pasta (spaghetti, linguini, etc.), broken
 1/4 teaspoon dried parsley
 1/4 teaspoon dried sweet basil
 pinch garlic powder
 pinch onion powder
 salt and pepper to taste
 2 cups boiling chicken or beef broth

Place the dried vegetables in a dry blender and whirl until the size of flakes. Measure 1/3 cup. Save remaining vegetables for another day. Place 1/3 cup flaked vegetables in a pint thermos. Add parsley, basil, garlic powder, onion powder, salt and pepper. Add bulgur wheat and pasta to thermos. Bring broth to a rolling boil and pour over dry ingredients. Quickly cover thermos and close securely. Yield: 2 cups.

CREAMY MUSHROOM SOUP

1-1/2 cups dried Mushrooms
 1/2 cup dried Onions
 2 cups hot Beef bouillon
 1/4 cup Margarine
 4 cups Milk
 1 teaspoon Salt
 6 Tablespoons Flour
 Parsley for garnish

Sauté mushrooms and onions in margarine in a heavy saucepan for 5 minutes, stirring occasionally. Combine bouillon, milk, salt and flour. Blend until smooth. Add to sautéed mushrooms and onions. Cook and stir 2 – 3 minutes longer. Garnish with Parsley. Yields 8 servings.

Fruit Roll-ups

In a blender, mix all ingredients until pureed. Pour onto Nesco/American Harvest Fruit Roll sheets; dry at 135°F for 4 to 8 hours, or until leathery and pliable. Remove from sheets while warm. Let cool and roll in plastic wrap and store as directed.

ORANGE JULIUS

Refreshing, just like the drink!
 1-1/2 cups Applesauce
 1 small Apple, peeled, cored and chopped
 2 teaspoon dried orange, ground
 1-1/2 teaspoons Vanilla

STRAWBERRY DAIQUIRI

A drop of Rum extract makes it taste like the real thing.

1 quart Strawberries, washed and cored
1/2 Lime, peeled and quartered
2 teaspoon Honey
Drop of Rum extract, optional

PINA COLADA

More moist than other roll ups.

1 (20 oz.) can unsweetened pineapple chunks or rings
1 cup Coconut

SWEET TOMATO

Add to spaghetti sauce for a fresh tomato taste.

2 cups Cherry tomatoes
2 Lemon wedges, peeled
2 Tablespoons Honey

STRAWBERRY CREAM CHEESE

A popular fruit roll at parties.

1 quart Strawberries, washed and cored
1/2 cup slivered toasted almonds
1 (8 oz.) pkg. of Cream Cheese

PEANUT BUTTER AND 'NILA

From ages 2 to 82, it's the favorite.

1 (8 oz.) carton Banana or Vanilla yogurt
2 Bananas, cut into pieces
1/4 cup Peanuts
2 Tablespoon Honey

TROPICAL

Imagine a Hawaiian sunset while chewing on these!

6 ripe Bananas, peeled and cut into pieces
1 orange, peeled and quartered

Pet Treats

TURKEY & SWEET POTATO TREATS FOR DOGS

This recipe can be served at any time of the year but they make wonderful treats at Thanksgiving so you can include your dog in the festivities. They are also attractive treats and packaged with clear cellophane and a ribbon, will make great gifts for friends with dogs.

Makes about 3 dozen treats, depending upon the size of the treats.

2 cups of turkey, cooked
1 cup water
1 cup sweet potato, cooked until soft
1 tablespoon molasses
1- 1/2 cups oatmeal, dry, uncooked
3 dozen cranberries, fresh or frozen

Shred or chop the cooked turkey so that it's in small pieces. Put the turkey and water into the food processor or blender until a thick paste. There should be no meat chunks. Add the sweet potato and molasses to the meat and puree until a thick paste. Pour or spoon the mixture into a large bowl. Add the oatmeal and mix well. The dough should not be too wet or runny; if it is, add a little more oatmeal. Spoon the dough onto the dehydrator rack by teaspoonful. Place a cranberry on top of each treat, pressing it in slightly so that the berry stays on the treat. Leave treats in the dehydrator for four to five hours or until thoroughly dry but not crispy.

Store in an airtight container in the refrigerator. Treats will be good for about three weeks.

TURKEY & SWEET POTATO TREATS FOR DOGS (continued)

To give as a gift, place the treats (cranberry side up) on a decorative holiday paper plate. Wrap in clear or holiday colored cellophane and gather the cellophane at the top of the plate. Tie the gathered cellophane with a holiday colored ribbon. Variations: Use fresh or frozen blueberries instead of cranberries. Use cooked potatoes instead of sweet potatoes.

KEALY'S FAVORITE FOR DOGS

Kealy is a tiny Pomeranian with a fluffy, golden coat. Kealy really likes this recipe and when I have some in my training treats bag, she follows me around, sitting prettily in front of me, in hopes that I will give her more!

Makes about three dozen treats, depending upon the size of the treats you make.

- 2 cups chicken, cooked, chopped into small pieces or finely shredded
- 1/2 cup applesauce, unsweetened, no cinnamon
- 1/2 cup spinach, fresh, finely chopped
- 1/2 banana

Put all the ingredients in a blender or food processor and puree until a thick paste. Drop by teaspoonful onto dehydrator racks. (Smaller spoonfuls for small dogs and larger spoonfuls for bigger dogs) Treats will need 3 to 5 hours in the dehydrator depending upon the size of the treat. (The outside of the treat will be dry and the inside soft.) When done, let treats cool on the rack.

Store in an airtight container. Treats should be refrigerated if not fed to the dog within

several days. They will be fine in the refrigerator for a couple of weeks. Excess treats can be frozen.

Two to three treats for a small dog; four to five for a larger dog.

Variations: Any of these substitutions will work just as well in this recipe and your dog will be just as enthusiastic about it. I grew the spinach, green beans, zucchini and summer squash in my garden so while making these treats, I just use what is ready to be picked. If you don't have a garden, check at your local farmer's market for what's fresh.

1. Substitute turkey for the chicken.
2. Substitute green beans, cooked, finely chopped, for the spinach.
3. Substitute grated fresh zucchini for the spinach.
4. Substitute grated fresh summer squash for the spinach.

TINY SHRIMP TREATS FOR CATS

This very simple recipe was a favorite with many of our taste test cats. Havoc, a huge, 13 year old Russian Blue, ate this with gusto and he's usually very picky!

Makes as many treats as there are shrimp in the can; usually at least two dozen.

- 1 four ounce can small peeled shrimp
- 1/3 cup catnip flowers, fresh

Open the can of shrimp and pour out the water the shrimp were packed in. Put the shrimp in a small bowl. Chop the catnip

flowers into 1/4 inch pieces. Although some leaves are fine, discard any stems. Add the flowers to the shrimp and mix, taking care not to break up the shrimp. Some of the flowers will stick to the shrimp; others will not and that's fine. Put the shrimp and flowers onto the dehydrator rack. The shrimp and flowers should remain in the dehydrator for about two hours or until thoroughly dry.

Remove shrimp and flowers from the rack and store in an airtight container in the refrigerator. One or two shrimp and a pinch of flowers makes a good treat for most cats.

Variation: If you can't find any fresh catnip flowers, you can use dehydrated or dried catnip, just add it to the dehydrated shrimp as you serve your cat a treat.

CRUNCHY SALMON CIRCLES FOR CATS

Many cats like crunchy foods; after all, they're used to hard kibble cat food. These treats combine the crunchiness they like with a strong salmon taste and smell. (Beware, though, many dogs like this treat, too!)

Makes 4 to 5 dozen treats, depending upon how thin you roll the dough.

1 six ounce can of salmon packed in water
1/3 cup water
2 cups oat bran flour

Put the salmon, including the water in the can, in the food processor or blender. Puree until a thick paste. If the mixture is too heavy, add a small amount of water, up to 1/3 cup. But only add as much water as needed to puree the fish. Spoon the paste into a bowl and add the flour, mixing well. The dough will become thick and stiff. If it isn't, because

you needed to add more water, add a little bit more flour until you can form a ball with the dough. Place the ball of dough onto a floured bread board and roll out to about 1/4 inch thick. Using a round, inch across cookie cutter, cut out the dough circles and place them on the dehydrator rack. With a sharp, pointed knife, gently score each circle crosswise both directions so that when done, the cookie can be broken into four pieces. Leave in the dehydrator for 4 to 5 hours or until the dough circles are thoroughly dry, crispy and crunchy.

Store in an airtight container in the refrigerator; they will remain good for three weeks.

To give your cat a treat, break one circle into four bite-sized pieces.

Drying Crafts

You've all seen a flower so perfect in form, color, and texture that you wish you could keep it forever. With a dehydrator, it now can become a reality.



Drying Flowers

Preserve garden and natural favorites for attractive dried flower arrangements, Christmas and holiday decorations, party favors, place cards and corsages. Help your children dry specimens for their science class. Many lovely flowers, foliage, flowering grasses, seedheads, cones, and non-flowering plants may be dried simply by placing on drying trays and drying at 130° to 145°F (55-63C) until no moisture is evident. This is wonderful for those of us who are too busy to experiment with other techniques, and also for the beginner who has not attempted preserving flowers before. Quite interesting arrangements can be made with these dried materials. Materials suitable for drying by this method are bracts, cultivated and wild grasses, seedheads, foliage, and everlasting flowers.

Using Desiccant

For flowers with petals, leaves, ferns, fungi, and some varieties of mosses, the best way to preserve them is to use a desiccant powder. A desiccant is a substance which absorbs moisture. It speeds the drying process, especially when used in a dehydrator, preserving the vibrant colors and delicate structure of the flower. The longer the drying process, the more colors will fade. Using a desiccant in your dehydrator will allow flowers to dry in a day instead of a week or two. There are several brands of flower desiccants available from craft stores. They may seem a little expensive, but can be reused indefinitely. Silica gel is the generic name and absorbs up to 50 percent of its own weight in moisture. Have perfect flowers, fresh and free of moisture. Yellows and blues maintain their color better than reds or whites.

- Remove stems from flowers and insert a short 20-gauge stub wire.
(Add a longer stem when arranging later.)
- Place 1/2" desiccant in bottom of containers that are no higher than 3-1/4".
- Place flat-faced flower face-down, with petals resting easily on the sand. Rounded double flowers such as roses and daffodils should be dried with their heads upwards. Flowers which are trumpet or bell-shaped should be laid on their sides.
- Gently sprinkle desiccant between the flowers and into every petal and crevice, with about 1/2" desiccant covering top. Do not cover. When desiccant drying is done outside of the dehydrator, containers should be covered.
- Place containers on the dehydrator tray. Place lid on top of dryer and plug in dehydrator. Most flowers will be totally dry in 24 hours or less.
- To test for dryness, gently scrape back the desiccant and remove one flower. Hold the flower to your ear and give it a gentle tap. If it is dry, it will sound crisp and papery.

- Remove remaining flowers by carefully pouring off desiccant, letting it fall slowly through your fingers, catching each flower and carefully removing it by its stem. Stand preserved flowers in a block of flower foam until arranged.
- Store in airtight tins until ready to use. In humid climates, protect loose-petal flowers with a light application of finishing spray to prevent moisture absorption.

Dried Apple Wreath

Supplies:

Mod Podge sealer (available in craft supply stores)

brush

1500 mgs. vitamin C (dissolved in 1 gallon of water or lemon or pineapple juice.)

8 or more apples (depending on the size of wreath)

hot glue gun & glue sticks

styrofoam wreath

grapevines

straw

cardboard

ribbon

thin wire

baby's breath

cinnamon sticks

Slice apples into 1/8 inch uniform slices. A meat slicer, apple slicer, or potato slicer results in even slices (do not core apples since the core forms an attractive star shape when dried). As you slice each apple, immediately place slices in a solution of pineapple or lemon juice and water (50/50 mix) or vitamin C and water solution. Soak apples 10 minutes, drain, and place on trays to dry. They will take 4 to 8 hours to dry. Remove apples when they are leather like with no pockets of moisture, but before they become crisp.

Secure a hanging device on the back of the styrofoam wreath form. Working a small area at a time from the outside in, squeeze a line of glue on the outside edge, place an apple slice, keep repeating, over-lapping the slices slightly for a more full look. Continue around the outer half of the wreath form, until the row is completed. Repeat process with the inside row, until there are 2 rows of apples side by side. When apples are glued in place, seal with Mod Podge on both sides of the wreath, one side at a time. Add a ribbon bow and any other decorative touches.

Dough Ornaments

This basic recipe is also called "Baker's Clay." Once mixed, it has a satiny texture, a delicious aroma and begs to be touched and shaped. Do not be surprised if everyone in the family gets involved in making ornaments!

4 cups flour

1 cup salt

1-1/2 cups water

Using a dough mixer or by hand, mix flour with salt in large mixer bowl. Add water until dough is a good consistency for kneading. If it is too dry, it will crack. If it's too wet, it will be sticky. Knead the dough by pressing and turning it with your hands until it becomes satiny smooth. It will take five to ten minutes or more, depending on the consistency of the dough and how smooth you want your finished objects to appear.

Dough that is insufficiently kneaded is difficult to form and may fall apart during drying and baking. The dough dries out quickly so keep unused dough in a plastic bag. For smaller projects, mix only half a recipe. Dough is best when used in about four hours. It may be refrigerated, but results from refrigerated dough are unpredictable.

Creating Ornaments

Shape objects directly on pieces of aluminum foil. All dough parts must be joined with water which acts as a glue. If parts are not joined properly, the dough may separate during baking and split when cooled. Use water sparingly.

To attach thin pieces of dough, adhere them firmly by pushing a toothpick or paper clip through them in addition to moistening them with water. Large ornaments should be strengthened with wire. Dough has no strength and requires support for larger ornaments. If the dough connects in small pieces (head and neck, arms or legs), insert toothpicks or wires between parts to keep the portions from separating over time.

Make impressions on dough with a variety of instruments. Impressions hold up best with a stiffer dough. All kinds of instruments can be used to make impressions to give texture and design to ornaments. Push dough through a garlic press or grater to make hair and other decorative effects. Cake decorating tubes with large nozzles can be used for making designs. Add extra water to soften dough to a good consistency.

Add a hanging device to the top or back of an ornament, before baking and drying, if it is to be hung. Use Christmas ornament hooks, bent wire, circles from pop-top drink cans, or paper clips. Push hanging device into dough at top center, close to the back of the piece. Remember, the final dough shape is the shape which will be baked. If there are loose pieces or undesirable marks in the dough, they will exist in the finished product.

Precoloring Dough

Before baking, raw dough can be precolored by adding drops of food coloring, watercolors, inks, and fabric dyes. Powdered colors should be mixed with the flour and salt before adding water. Liquid shoe polish or leather dye can also be brushed on lightly during the first 15 minutes of baking.

Baking and Drying Dough

Dough should be baked for 2 hours at 300°F (150°C) in your oven. Then transfer to your dehydrator. Dry for an additional 4 to 12 hours until completely dry (until you become more experienced with drying dough-art in your Nesco®/American Harvest® dehydrator, it is wise to place a piece of dough, the same size as the largest /thickest piece of your ornament, to use as a test piece. To test for dryness, break apart the test piece. It is done when it is completely dry inside). Remove ornaments when totally dry and cool prior to applying paint.

Painting Dough

Acrylic paints are the most popular and easily applied. They are available in jars, spray cans, and tubes. They mix easily and dry quickly. If you are adding different colored layers over one another, use a coat of sealer between them to prevent them from running or smearing. When painting is complete, dry in your dehydrator for 1 to 2 hours until thoroughly dry.

Sealing

It is extremely important to seal salt dough ornaments to prevent moisture from reentering and causing mold and disintegration. There is a wide variety of final coatings which can be used, but they should be transparent and non-penetrating so surface of dough-art is strengthened with a hard protective coating. The best choice is a polyurethane varnish. Be sure to remove ornaments from dehydrator and place in a well ventilated area (preferably out-of-doors) before applying varnish. Carefully place objects (on aluminum foil making sure that no foil covers the center hole or outer ring vents) in dehydrator to dry.

CAUTION: Make sure your dehydrator is placed in a room with adequate ventilation or an open window. Place ornaments in dehydrator. Most varnishes will dry in an hour or so in dehydrator. Repeat varnishing process until a minimum of 4 complete coats (both sides of object) have been applied, allowing ornament to dry thoroughly between coats. Again, it is handy to use dehydrator for this process to speed drying time.

Potpourri

Pick flowers when they are about three-quarters open – when they are fully open, they lose fragrance. Gather about twice the amount you believe you'll need, since they shrink as they dry. Remove petals from flower heads and pull herb leaves from their stems. Spread in a single layer on a Clean-A-Screen® accessory and place in dehydrator.

Dry until brittle-dry, which may take from 2 to 12 hours, depending upon the plants, the amount, and the model of dehydrator you are using.

Store different flowers and herbs separately in covered jars until you're ready to mix. Keep in a cool place, out of direct sunlight.

Experiment with different combinations, mixing small quantities and recording the results until you come up with a blend that you like.

To blend ingredients, measure and stir dried materials into a large bowl. When you have the right blend of color and fragrance, add fixative, spices, and oil. Age in a tightly sealed jar for 2 - 6 weeks, shaking occasionally to blend fragrances. Package in smaller decorative containers or bags for gifts or personal use.

Sweet & Spice Potpourri

For a perfect holiday gift, place one cup of this recipe in a lace bag tied with a colorful ribbon.

1 cup dried rose petals	1 Tbsp. whole cloves
1/4 cup dried lavender blossoms	1 stick cinnamon, crumbled
1/8 cup dried rosemary	1/3 tsp. ground cloves
1/8 cup dried chamomile	1/4 tsp. ground nutmeg
1/2 cup dried grated orange peel	2 drops rose oil
1 tsp. powdered orrisroot	1 drop orange oil
2 tsp. orange-spice tea	1 drop lavender oil
1 Tbsp. coriander seed	1/2 cup dried bachelor's button petals (for color)

In a large bowl, combine rose petals, lavender, rosemary, chamomile, and orange peel. Add orrisroot, tea, and spices. Add oils, sprinkling lightly over mixture. Mix in bachelor's button petals. Makes about 2 cups potpourri.