

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.