

Drying Herbs

Introduction

The flavor of herbs comes from oils in the cell walls of plants. Leaves, flowers, stems, and seeds of herbs can all be dried. Heat, low humidity, and air movement are needed to dry herbs. Some methods include air-drying, seed harvesting, dehydrator drying, and microwave drying. Sun drying and oven drying have limitations.

When to Harvest Herbs

Most herbs are best for drying just before the flowers first open. New leaves at the tip of the plant will have the most concentrated flavor. Flowering herbs tend to be somewhat bitter. Herbs will have more of their essential oils if harvested on a sunny day in mid-morning after the dew has evaporated. Use scissors to cut the stems just above a leaf or pair of leaves. Leave 4 to 6 inches of stem for later growth. Harvest seeds when mature.

Preparing Herbs for Drying

Remove any bruised, soiled, or imperfect leaves and stems. Inspect plants, especially seeds, for insects.

Rinse the stems in cool water and gently shake to remove excess moisture. Then gently pat dry with a paper towel. Another option is to remove moisture using a salad spinner. Remove as much moisture as possible.

Methods of Drying Herbs

Less tender herbs such as sage, thyme, and winter savory are the easiest to dry. They can be tied into small bundles and air-dried. Tender-leaf herbs such as basil, tarragon, lemon balm, and the mints have a high moisture content and will mold if not dried quickly.

Air-Drying

For air-drying to be successful, humidity must be low and good air circulation must be available. Stems of herbs such as mint, sage, or thyme can be tied in a small cluster and hung in a dry area with good air circulation. If you use a rubber band to tie them, it will tighten as the stems dry and stems will not fall out of the cluster. Clusters of dried herbs may look attractive decorating a kitchen or fireplace, but care must be taken to avoid humidity and dust. Hang herbs away from the sink, stove, or dishwasher where there is a lot of moisture. Keep dust off herbs by covering them with a paper bag punched with holes. The holes will allow air to circulate. If drying seedy herbs, place them in the bag so that the bag can catch the falling seeds. When drying leafy herbs, place the bag over the herbs as a dust shield.



Herbs with small leaves can be laid out on a fine stainless steel or food-safe plastic screen or paper towels to air-dry. When dried, just strip the leaves from the stem to store. For herbs with larger leaves, remove the leaves from the stems and lay them on screens or paper towels without allowing the leaves to touch. Up to five layers of herbs and paper towels can be dried by this method. It may be necessary to change paper towels as they absorb moisture from the herbs.

Microwave Drying

Parsley, basil, and celery leaves dry well in some microwave ovens. A microwave oven with a wattage rating of 1,000 or higher may heat too fast to use this method. Read the manufacturer's directions to see if you can do this in your oven. Arrange washed and dried herbs one layer thick between microwave-safe paper towels. The length of time will depend on the amount of herbs and the power level of the microwave oven. Microwave on high for 2 to 3 minutes per cup. Start with 1 minute, mix after every 30 seconds, and continue checking for dryness. Remove from oven; cool. Rub between paper towels to crumble or wait to crumble until ready to use. Repeat with remaining herbs.

Caution: Watch carefully! If there is not adequate volume, the paper towels can catch fire.





Seed Harvesting

The seeds of dill, caraway, mustard, and fennel can be left on the plant until mature. Cut flower stalks or pull entire plant from the ground, hang upside down, and shake seeds out when dry. Examine seeds for insects. Husks can be removed from seeds by rubbing the seeds between the hands and blowing away the chaff. Check for insects and treat dried seeds as described under “Treatment of Air-Dried Herbs and Seeds” below.

Dehydrator

Herbs can be dried in a dehydrator if the temperature can be set between 95 and 110°F. Place stems on drying trays so they do not touch. Larger leaves can be dried separately. Do not dry herbs with fruits or vegetables because the flavors may mix and the moisture contents are different.

Oven Drying and Sun Drying

Oven drying is generally not recommended because even the lowest temperature destroys much of the flavor, oils, and color of the herbs. To oven dry, set the oven at the lowest temperature (not above 180°F) for 3 to 4 hours with the oven door open. The oven light in some ovens may provide enough heat to dry herbs.

Sun drying is not recommended in Pennsylvania because high humidity levels prevent the quick removal of moisture.

Testing for Dryness

Make sure herbs are completely dry to prevent mold growth during storage. Herbs are sufficiently dry when leaves are crispy and crumble easily between the fingers.

Treatment of Air-Dried Herbs and Seeds

Herbs that have been air-dried and seeds need to be treated to destroy any insects or insect eggs by heating the herbs or seeds

at 160°F for 30 minutes or freezing at 0°F or lower at least 48 hours. (The heat method will reduce the flavor and is not suitable for seeds that you want for planting.)

Storing Dried Herbs

Avoid exposing dried herbs to air, heat, and light. Airtight and vapor-proof containers will prevent herbs from absorbing moisture from the air and other foods from absorbing the fragrance of the herbs.

Store in a cool, dry, dark place such as cupboards or drawers away from stoves and sinks. Don't set them near the stove top or on a windowsill.

Storing dried herbs in the refrigerator or freezer will maintain their freshness, but it creates other problems. If you take a container from a cold area to the warm kitchen, condensation may form, causing the dried herbs to absorb enough moisture in the jar to cause spoilage. Avoid the spread of herbal odors to other foods in the refrigerator or freezer. Use freezer jars or heavy-duty aluminum foil to avoid odor transfer.

Most dried herbs keep well for up to a year. Judge their strength by their aroma. Store whole or crushed, but whole herbs are preferred because they hold their oils and retain their flavor longer.

Substituting Dried Herbs for Fresh

Use these amounts as guidelines for substituting one form of an herb for another:

- 1 tablespoon fresh herb
- 1 teaspoon dried herb
- ¼ teaspoon powdered herb

In some cases, dill seed may be substituted for fresh dill or dill weed; 2 to 3 teaspoons dill seed or dill weed provides the flavor of one head of fresh dill.

For additional information about food preservation, visit the Penn State Extension Home Food Preservation website at extension.psu.edu/food/preservation or contact Penn State Extension in your county.

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