



Preserving Flowers and Foliage

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Dried flowers, pine cones, grasses, and seed heads are popular materials for decorative arrangements and craft projects. Using a wide variety of plant material gives the best results, and you may find an assortment of usable plants throughout the entire growing season. A preservation method exists for just about any type of plant or flower, depending on how much time and expense you are willing to commit to the project.

Harvesting and Holding Dried Flowers

Timing

No matter which drying method you choose, harvest flowers at the correct time—just before they reach their peak. Flowers that have passed their prime do not dry or hold their color well. Harvesting and drying many flowers throughout the growing season ensures a plentiful supply when the time comes to arrange them.

Amount

Always dry more than you think you could possibly use. Not only may you discover more ways to use them, but dried arrangements often need more material for a finished look. As with any project involving fragile material, you may destroy quite a few pieces until you become accustomed to working with dried material.

Experimenting

A little experimenting with preservation methods and with creatively selecting materials can produce truly unique dried arrangements.

Air Drying—The Hang-and-Dry Method

Overview

Which Plants—Plants that are gathered fresh or that still retain some water need to be dried before use.

How—The simplest way to preserve plant material is also the least expensive. You just hang plant material in a dry area with good air circulation. No rule says material must be hung upside down, but doing so often works best. The least damage occurs to materials neatly hung in small bundles, and stems remain straight.

Where—A dry basement, attic, or closet with louvered doors is an ideal location. The amount of space needed depends on how much material you wish to dry.

- Plants consisting mainly of stems or delicate pods might best be air dried and stored in boxes with some type of protection like shredded newspaper around them.
- Some flowers retain their best color if they are dried in the dark. Covering plant material with a brown paper bag works well if the drying room is too light.
- Many plants, like grasses and familiar roadside weeds, dry naturally in the field. When you use these plants, you don't have to hang them to dry. These plants are easy to use and to recognize.

Where to Find—You can gather plant material for the hang-and-dry method from almost any area. A vacant lot, field, or well-kept garden may be bountiful sources. You do not have to specialize in plant identification to spot possible specimens.

What to Do

1. When you gather fresh plants, remove all excess foliage from the stem.
Why—First, the foliage of most plants does not dry well, and its presence increases the time required for drying. Second, when foliage dries, it becomes unsightly and is hard to deal with in storage and in arrangements.
2. After you remove excess foliage, gather plants in small bundles. The size of the bundle depends on the plant material and space available. You can bind bunches with string using a slip knot, which adjusts itself to shrinkage and helps keep bundles secure. It also lets you easily remove specimens and put the bundle back in storage with a minimum of effort. You can also use rubber bands.
3. String bundles on wooden dowels attached to coat hangers, and hang them in an area with low humidity.

How Long Does Drying Take?

It depends how fast water evaporates from the plant material. Specimens put in a damp or humid area take longer to dry and may produce unsatisfactory results.

Time required for drying also is affected by the type of plant material and its condition when it was gathered. Condition refers to the stage of growth in which it was gathered. The type of plant material refers not only to the stage of growth but also to the part of the plant that is desirable for drying. In some plants, stems are suitable for drying; in others, flowers are the desirable product; and in still others, fruits or seed pods are the prize sought. At different times during the growing season, a plant may produce several desirable stages.

Garden Flowers, Vegetables, and Fruits Often Air Dried

Artichoke (Globe, French)—Both flowers and fruit can be air dried. Fruit should be parboiled for 10 minutes.

Wedge wax paper between scales to develop a more open look during drying, and allow to dry in open air. Dry flowers by the hang-and-dry method.

Baby's Breath—Although many of the tiny flowers remain white or pink, some turn brown. A little spray of white paint brightens dried material. Steaming dried flowers before arranging helps restore the shape of the flower clusters.

Bells of Ireland—Harvest and hang to dry, or let them dry in the garden.

Bittersweet—Spray berries with a fixative like lacquer.

Chinese Lantern—If plants are harvested while immature, the husks or “lanterns” will hang and dry.

Chives—Harvest lavender blooms before they reach their peak bloom to retain their color.

Cockscomb—Harvest blooms before they reach their peak for best color retention. Both crested and plumed types can be dried. Drying in a dark area produces the best color, but a light spray of paint may still be necessary.

Delphinium—Bloom spikes dry easily but tend to shatter.

Dusty Miller—Foliage generally stays pliable after drying.

False Indigo (Baptisia)—Seed pods are dark charcoal gray. Harvest them in fall and hang to dry.

Gomphocarpus—Grown for the large, round, spiny seed pods produced late in the growing season. Let them dry in the garden. They are available periodically in seed catalogs.

Gomphrena (Globe Amaranth)—Available in white, purple, orange, and pink; holds its color very well.

Globe Thistle (Echinops)—An excellent garden perennial. The globe-shaped violet-blue flowers dry easily.

Hydrangea—Clusters of blooms dry well. Blooms can be dyed with a dip-type dye or spray painted.

Strawflower (Helichrysum)—Remove blooms from their natural stems and wire them. Flowers can be used immediately after harvest.

Mealycup Sage (Salvia farinacea)—The blue or white flower spikes hold their color well and do not shatter easily.

Nigella (Love in a Mist)—Seed pods dry naturally on the plant and can be harvested all summer.

Okra—Cut the pods before frost and air dry them. They can be split or left intact. Pods have to be wired if a longer stem is desired.

Osage Orange—The chartreuse fruits can be preserved for a while by treating the outside of undamaged fruit with a shellac-alcohol mix. They also produce interesting results if split and dried in the oven at 175°F for 24 hours. Fruits preserved in this manner last almost indefinitely and are rock hard.

Peppers—Most peppers retain their bright shiny colors. Bell peppers do not air dry but can be dried in sand.

Pussy Willow—If harvested while relatively immature, stems should dry naturally and need no special care.

Rose—Best to dry flower buds rather than open blooms.

Scabiosa—Seed pods are abundant and dry naturally on the plant.



Sedum—Flower heads can be dyed with liquid dye while fresh or after they are dried.

Smoke Tree—Cut the feathery blossoms and stand them upright in a container until dry. The foliage will also dry.

Statice—All forms dry easily and retain their color.

Unicorn Plant (Martynia)—Seed pods have a unique appearance. Let them dry naturally in the field. The plant is large and invasive, and it may become a problem in the garden. Seeds are very hardy and readily self sow.

Winged Everlasting (Ammobium)—The daisy-like blooms are white and have a texture similar to strawflowers. Harvest before blooms reach their peak.

Xeranthemum—Air dry or let them remain on the plant until dry. The single blooms, in pastel shades, are similar in texture to strawflowers.

Yarrow—The golden blooms of cultivars of *Achillea filipendulina* dry and hold their color best. These blooms can also be bleached. Forms of *Achillea millefolium* will also dry.

Roadside Weeds and Native Plants

Buttonweed (Velvetleaf)—Gather naturally dried plants in the field. Stems have a graceful appearance with button-like seed pods; both bleach well. Seed pods can be removed and used in wreaths, etc.

Chicory—Stems are the most useful part. They are light-colored naturally but can also be bleached.

Dock—The seeds' dark wood tones can be quite attractive. Dried material can be stained darker or bleached to produce various tones.

Fungi (including mushrooms, shelf and bracket fungi, etc.)—Air dry. They may need to be supported with shredded paper to keep them from sagging.

Goldenrod—Can be harvested and dried at various stages. Immature stems have tighter buds and are not as full and fluffy. Mature blooms are fuller but may tend to shatter.

Ironweed—May be gathered at any stage of flowering. Gathered early, flower buds are dark purple and dry in a tight stage. Later in the season, blooms become fuzzy and light brown and may shatter. If plants remain in the field, seeds disperse and remaining flower parts resemble a star flower.

Jimson weed—Gather it in the field after seed pods are mature and seeds have been ejected. Pods that open naturally are more attractive. However, they can be gathered when immature. They open to a certain extent during the drying process.

Lichens—Bake at 250°F until dry to destroy spores.

Poison Hemlock—Although harmful to cattle, it is not dangerous to humans unless eaten. It can be gathered once it has dried in the field. Its delicate appearance makes it useful as filler. It bleaches easily.

Queen Anne's Lace—Flowers tend to curl during drying. Although the original shape is lost, the dried shape is attractive. The natural dried color is a light tan, but dried blooms can be bleached.

Smart Weed—Stems have a bamboo-like appearance. Stems are red when fresh, but this color often disappears after the stems are dried. A fine spray of red paint helps to improve the appearance.

Teasel—Harvest seed heads in the field. It is best to bleach material before the heads are dyed, to modify the color.

Generally Available from Florists

Acacia—The flower clusters' natural grace can be restored after drying by steaming the material over a kettle.

Banksia—Large cone-shaped flowers that dry naturally.

Heather—Hang and dry or stand them upright until crisp. Spray to prevent shattering.

Protea—These large unusual blooms are available from most florists. Blooms dry naturally and require no special care.

Desiccants

Which Plants—Flowers that readily wilt can be preserved only by using a desiccant. Garden favorites, like roses, will air dry, but using a drying medium or desiccant produces more desirable results.

How—Silica gel, borax, sand, sawdust, perlite, cornstarch, or a combination of these drying materials help retain color and help support flower petals during drying. This method of flower preservation requires more expertise, time, and expense, but the results are worth it.

Materials to Use

- A mixture of 2 parts borax with 1 part fine sand is inexpensive and effective. Drying takes from 4 to 14 days, depending on the material being dried. To help flowers retain their original color, add 3 Tbs of non-iodized salt to each quart of the mixture.
- Silica gel is lighter, has smoother particles than other materials, and is especially effective for drying delicate flowers. Drying usually takes 2 to 7 days. Because drying occurs quickly, flowers tend to retain more of their original color. You can buy silica gel at some garden centers, hobby and craft shops, and florists. Silica gel crystals are expensive but can be used again and again. They turn from bright blue to pinkish-gray as they absorb moisture. Dry them for reuse in a shallow pan in a warm oven (250°-275°F) for several hours or in a microwave oven for a few minutes. Crystals are ready to use again when they have returned to their original blue color. Store them in an airtight container.

What to Do

1. Cut flower stems short. Drying stems adequately would require too much desiccant and very large containers. You can lengthen stems before or after drying by using florist's wire. After you insert the wire, cover it with florist's tape.
2. Put ½ inch of desiccant in the bottom of a container big enough to hold the materials you want to dry without overlapping them.
3. Put flat-faced flowers like daisies face down. Arrange all others face up.
4. Gently sprinkle the drying agent around and over the flowers; be careful to retain the natural shape of the flowers. Add desiccant until flower heads are covered.
5. Cover the container and do not disturb it except to check the flower for dryness.

How Long—Drying is complete when flowers are crisp and dry but not brittle. The thickest parts are slowest to dry.

You can remove flowers when petals are completely dry and finish them by air drying. To remove flowers, gently pour off the drying agent, then whisk away any remaining desiccant with a soft brush.

Flowers to Dry Using Desiccants

Ageratum—Face up; 2 weeks.

Ajuga—Face down; 2 weeks. The foliage and flowers can both be preserved.

Amaryllis—Face up; 3 weeks.

Anthurium—Face up; 4 weeks. They generally do not retain their original color.

Astilbe—Face up or down; 2 weeks.

Bachelor's Button—Face up; 2 weeks. Reinforce petals with glue before drying.

Begonia (tuberous)—Face up; 2 weeks. Blooms hold their shape well but do not hold their color.

Blackberry Lily—Face up; 2 weeks.

Black-Eyed Susan—Face up; 2 weeks. Reinforce petals with glue after drying.

Bleeding Heart—Horizontal; 2 weeks. Arrange blooms so that centers can be filled with desiccant to maintain the bloom's shape.

Calendula—Face up; 2 weeks.

Calla—Face up; 2 weeks.



Camellia—Face up; 2 weeks. These blooms bruise easily and are difficult to dry with success.

Canna—Face up; 3 weeks. Dry individual florets separately.

Carnation—Face up; 2 weeks. Because of shrinkage during drying, petals need to be reinforced with glue after drying.

Chrysanthemum—Face up; 4 weeks. Dried blooms shatter easily.

Clematis—Face up; 2 weeks. Cut blooms from the vine and dry individually.

Columbine—Face up; 2 weeks. It is very difficult to maintain the unique shape of the bloom.

Crape Myrtle—Face up; 10 days. Individual florets are usually dried separately and then glued back on the flower stem.

Crocus—Face up; 3 weeks.

Daffodil—Face up; 3 weeks.

Dahlia—Face up; 2 weeks.

Daylily—Face up; 3 weeks.

Delphinium—Face up or down; 2 weeks.

Forsythia—Face up or down; 2 weeks.

Foxglove—Face up; 2 weeks. It is easier to dry individual florets and then glue them back on the stem.

Gaillardia—Face up; 2 weeks.

Gazania—Face up; 2 weeks.

Geranium—Face up; 2 weeks. The color may change drastically.

Gladiolus—Face up; 2 weeks. Dry individual florets and then glue them back on the stem.

Hens-and-Chickens—Require months to dry. They turn white and are very fragile.

Hibiscus—Face up; 3 weeks. Dried flowers are very fragile.

Lilac—Face up; 2 weeks.

Lily—Face up; 3 weeks.

Lily, Water—Face up; 2 weeks. Be sure blooms are dry before processing begins.

Magnolia—Face up; 2 weeks. The blooms tend to turn brown.

Nigella—Face up; 2 weeks. This method preserves the blooms.

Pansy—Face up; 3 weeks.

Peony—Face up; 3 weeks.

Petunia—Face up; 3 weeks.

Poinsettia—Face up; 3 weeks.

Poppy—Face up; 2 weeks.

Queen Anne's Lace—Face down; 2 weeks. This method maintains the blooms' original form and color.

Rose—Face up; 2 weeks. Use only buds and half blown flowers. Blooms may need reinforcing with glue.

Tulip—Face up; 3 weeks.

Zinnia—Face up; 2 weeks.

Microwave Ovens

An alternative to conventional drying with desiccants is to use a drying agent and a microwave oven. It takes only a few minutes and yields materials that are fresher-looking and more colorful than those obtained by other methods.

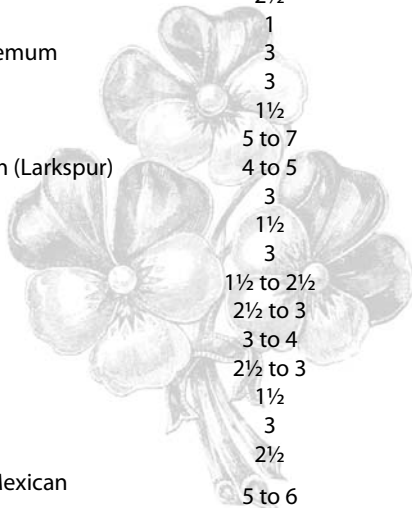
What to Do

1. Use a microwave-safe container.
2. Use a silica gel or borax-sand mixture to support the flowers.
3. Leave the container uncovered, and put a cup of water in the oven to prevent excessive drying.
4. Let flowers stand after drying to finish drying and cooling.

How Long—Drying time varies with the material (refer to chart).

Suggested Drying Time for Flowers in a Microwave Oven

Flower	Heating Time (minutes)	Standing Time (minutes)
African Daisy	3	10
Aster	2½	10
Calendula	2½	10
Carnations	1	10
Chrysanthemum	3	10
Clematis	3	10
Daffodil	1½	10
Dahlia	5 to 7	36
Delphinium (Larkspur)	4 to 5	10
Dianthus	3	10
Dogwood	1½	24
Marigold	3	10
Orchids	1½ to 2½	24
Pansy	2½ to 3	24
Peony	3 to 4	36
Poppy	2½ to 3	24
Rose	1½	10
Salvia	3	24
Scilla	2½	10
Tithonia (Mexican Sunflower)	5 to 6	10
Tulip	3	24
Violet and Violas	2½ to 3	10
Zinnia	4 to 5	10



Preserving Foliage with Glycerin

Foliage treated with glycerin or some other solution keeps almost indefinitely and remains pliable. Glycerin preserves foliage by replacing the natural moisture present in the leaf with a substance that maintains the leaf form, texture, and sometimes the color.

Which Plants—Foliage that is to be preserved in this manner should be fresh and fairly mature. This method's success depends on the material's ability to absorb the

preserving solution. Old plants may not absorb the solution. Likewise, very young plant parts that wilt easily may not do well either.

Materials to Use—Many different glycerin solutions are successful. Some people use only glycerin and water, while others prefer a more elaborate mixture. If you use only glycerin and water, keep several things in mind. Leaf texture determines the dilution of the solution. Solutions that are too “thick” do not do well with fine-textured material. The usual ratios are:

Foliage Type	Glycerin Solution
Thick-textured foliage	1 part glycerin to 2 parts water
Medium-textured foliage	1 part glycerin to 2½ parts water
Fine-textured or thin foliage	1 part glycerin to 3 parts water

What to Do

This method's success depends on rapid and complete uptake of the solution into the plant material.

1. If possible, see that the plant material is not watered just before harvest. Plants that have not been watered absorb the solution faster.
2. Recut stems just before putting them in the solution.
3. Leave the container of plant material in a location that has good air circulation.
4. As the solution in the container begins to evaporate, replace it with the same proportions of ingredients as the original.

Controlling Color—Most foliage changes color during treatment, but you can control the change to some extent. When leaves have absorbed enough solution to be preserved, you can vary the amount of time in the solution. In certain cases, this variation of time produces different color tones.

How Long—The plant material's texture affects the time needed for it to absorb the solution. Fine-textured leaves usually require less time than coarse-textured leaves.

- If plant material is allowed to remain in the solution for an extended period, it may become limp. This condition can be remedied by hanging the leaves upside down for a few days until they return to normal.
- Remove dust from foliage with a dustcloth or by submerging the plant material in warm water.
- Unused preservative solutions can be stored indefinitely in a sealed container.

Other Glycerin Solutions for Preserving Foliage

- 1 part glycerin
- 2 parts hot water
- 2 Tbs bleach, Lysol® or rubbing alcohol per cup of solution (food coloring or florist's dye is optional)

Bleach or other disinfectants reduce growth of mold and bacteria, which keeps the solution clean and “sweet smelling.” Adding green coloring may retain the natural green color of foliage. Other colors may be used to produce various effects.

In some cases, plants must be totally submerged in the solution. Ivy must be treated in this manner. The solution below is recommended for this type of treatment.

1 part glycerin
1 part warm water
2 Tbs bleach, etc., per cup of glycerin
(coloring optional)

To keep foliage submerged—Foliage should be weighted down to keep it submerged in the solution until the treatment is complete. Foliage of hosta, lily of the valley, violets, and galax respond best to total immersion.

Foliage to Preserve with Glycerin

Beech—Leaves generally turn brown.

Boxwood—Generally turns a golden color. Foliage can be submerged.

Croton—Colors fade slightly. It generally takes 10 to 15 days.

Dogwood—Process for several days.

Eleagnus (Russian Olive)—Process for 6 weeks.

Galax—Submerge foliage.

Holly—Process foliage for 3 days and then air dry.

Hosta—Submerge foliage.

Ivy—Submerge foliage 5 to 10 days.

Juniper—Process for 10 days. Pointing the ends of the branches may help the process.

Laurel—Depending on the variety, process plants for 4 days to several weeks.

Lily of the Valley—Submerge foliage.

Maple—Submerge individual leaves for several days.

Oak—Foliage generally turns brown. Process for several days.

Poplar—Process for 3 to 5 days.

Sweet Gum—If foliage is cut before a frost, then red fall color may be retained.

Violet—Submerge foliage.

Other Activities

Bleaching Plant Material

Which Plants—This process generally works best on woodier dried materials.

How—Simply submerge plant material in undiluted household bleach. Remember, this solution can be very caustic so use only plastic containers.

How Long—It is hard to know in advance how long the material needs to stay in the solution before it is bleached. The time required can vary from a few minutes to an hour or more. Remove plant material from the solution frequently and check for firmness. Some plant material begins to dissolve if you leave it in the solution too long.

Cleaning Dried Arrangements

Dried arrangements often must frequently be replaced because they collect a layer of dust. Here are some ways to clean them.

- Many woody types of air-dried material respond very well to a dip in warm soapy water.
- Foliage that has been preserved in glycerin can also be washed.
- Do not wash delicate air-dried plants and any plant material that has been dried with a desiccant. They do not tolerate washing. Gentle brushing with a small brush will remove some of the dust. Doing so is a tedious job and, when necessary, it may be easier and more satisfactory to dry more flowers and make a new arrangement.

To preserve dried flowers and to keep seed heads from shattering, do the following:

- Spray them. You can use ordinary hairspray, aerosol lacquer, or sprays sold as dried floral preservatives.
- Keep dried flower arrangements away from direct sunlight, or they will fade.
- Avoid putting plant materials that have been dried with desiccants in humid locations. Remember, during rainy weather, an open window can greatly increase your home’s humidity. Dried plant material reabsorbs moisture from the air. Once this happens, material is ruined. This problem occurs more in non-air-conditioned homes.