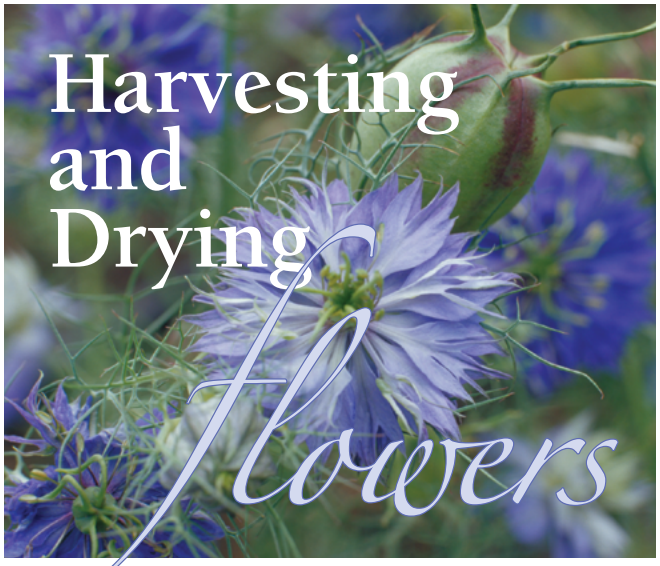

A great way to enjoy flowers all year long is to collect and preserve them for use in dried arrangements, on wreaths, or in potpourri. With a little preparation many flowers will retain their color and form when dried. Some flowers called "everlasting" flowers are very easy to dry. These flowers are composed of colorful, papery petals or bracts (modified leaves that look like petals) that when the flower is mature, are stiff and dry even though the flower is still attached to the living plant.

Plants Suitable for Drying

In addition to the annual and perennial flowers listed here, a number of other plant types also can be dried. Woody shrubs with suitable flowers include roses and hydrangeas. The leaves and flower heads of ornamental grasses–such as fountain grass, northern sea oats, and the many types of Miscanthus–dry well. And although some may think of these as weeds, the dried seed heads of cattail and dock make beautiful additions to dried arrangements. Leaves from beech, cotoneaster, Russian olive, English ivy, and oaks can be preserved using the glycerin process; including leaves like these in dried arrangements gives a more natural look. The fruit from bittersweet vine is also popular in dried arrangements. Finally, consider harvesting and preserving the foliage of perennials, such as silver mound artemisia and lamb's ear, to add a soft gray color and interesting texture to your arrangements.

Harvesting

Flowers or leaves for drying can be collected throughout the growing season. Consider experimenting and collecting plants at different stages of development. For example, some leaves change in size, color, and texture over the course of a growing season. Harvesting at various times provides more variety. Choose only the best flowers for drying; insect or disease damage is more apparent after flowers have dried. For best results, harvest flowers and leaves when they are free from dew or rain in order to reduce drying time. Place the cut flowers directly into a container of water to keep them as fresh as possible before the drying process begins.

Wiring Techniques

Flowers that do not have naturally stiff stems benefit from wrapping the stems with 20- to 24-gauge wire and floral tape. Flowers placed in a drying agent also usually have the stems removed and replaced with wire.

Mums, zinnias, and other similarly shaped flowers can be wired through the center of the flower head.

Inserting the wire below the flower works best for roses, sunflowers, and other heavy flowers.

Use floral tape to wrap the ends of the wire to the stem.

Air Drying

Air drying is the easiest and most common way to preserve most flowers. Gather the stems into small bunches and bind together with a rubber band. Hang the bunches upside-down in a dark, well-ventilated area. Hanging them upside down helps keep the stems straight and the flower heads more upright and rigid. Darkness prevents color fading. Warm temperatures and good ventilation speed the drying process and prevent molding. Most flowers

IOWA STATE UNIVERSITY
Extension and Outreach

PM 1398 Revised February 2007

need one to two weeks to dry depending on the moisture content, temperature, and humidity. A properly dried flower should feel stiff and dry, not limp or damp. Some everlasting flowers can be dried upright.

Drying Agents

Drying agents can be used to preserve most flowers and are an alternative to air drying. Spike flowers, such as snapdragons and delphiniums, can be dried with the stem attached being careful not to flatten flowers.

Place a 1- to 2-inch layer of drying material in the bottom of a shallow container. Gently sift the material over the petals, making sure that all petals remain in place as the material is added. Use a toothpick to correct bent petals or to reposition them. After all flowers have been completely covered, lift the container and tap it gently on the base to help settle the material, then re-cover any exposed flowers.

Check petal placement before covering completely.

A popular mixture for drying is made by combining equal parts borax and white cornmeal. These materials hold the petals in place while they dry naturally. Flowers will dry in approximately two to three weeks. The container should be left uncovered during the drying process.

Commercially prepared drying agents contain silica gel that absorbs moisture from the flowers. Flowers being dried in silica gel must be placed in air-tight containers to prevent the product from absorbing moisture from the air. Drying in silica gel usually takes three to eight days and varies with the flower thickness. If removed too soon, the petals will droop. If removed too late, the petals become brittle and may break easily. After using silica gel to dry flowers, it may be necessary to dry the silica out by baking it in a shallow pan at 250° to 300°F for approximately 1 hour, stirring the crystals several times while they are drying. Keep unused silica gel in air-tight containers.

Microwave oven drying is another method and can result in fresh-looking, colorful dried flowers. In a microwave-safe dish put a layer of silica gel. Nestle the flower into the gel being careful not to damage the petals. Put a small container of water in the microwave to prevent excessive drying during the microwaving process. Drying times will vary from one to three minutes depending on flower size and petal thickness. After drying, leave the flowers in the silica gel for 12 to 24 hours to allow the flowers to finish drying and cool.

To prevent dried flowers from reabsorbing moisture from the air, seal by spraying with hair spray or a lacquer.

A glycerin solution can be used to preserve leaves, giving them a pliable and life-like appearance. Glycerin is available in craft stores. Follow the specific directions on the container. If long stems with multiple leaves are being preserved, the cut stems should be placed upright in a container and the glycerin solution will be absorbed up through the stem. Another method involves submerging the stems or individual leaves in a glycerin solution so that all of the surfaces are coated. In both cases, the leaves will darken as the glycerin is absorbed. It usually takes one to three weeks for the glycerinizing process to be completed.

Regardless of which preservation method is used, a little experimentation with when to harvest and which method works best will be necessary. The end result will be beautiful flowers with a lifelike appearance that you can enjoy long after summer has ended.

Perennials

Yarrow (*Achillea* species)
Apricot, pink, red, white, yellow
Height: 40 inches
Air dry—strong stiff natural stem; pick when peak size and color are reached and flowers are firm to the touch; dry upright or upside down

Pearly everlasting (*Anaphalis triplinervis*)
White
Height: 18 inches
Air dry—tape stem to wire; pick when white bracts are unfurled, but before yellow center has unfurled

Cupid's dart (*Catanache caerulea*)
Blue
Height: 18 inches
Air dry—strong stiff natural stem; pick when petals are fully open

Delphinium (*Delphinium* × *elatum*)
Blue, violet, white, pink
Height: 36 to 72 inches
Air dry or use silica—strong stiff natural stem; pick when majority of florets on the flowering stem are open

Globe thistle (*Echinops ritro*)
Blue
Height: 40 inches
Air dry—strong stiff natural stem; pick as soon as central globes are gray-blue and before the tiny flowers appear

Sea holly (*Eryngium* species)
Blue
Height: 24 inches
Air dry—tape stem to wire; pick when color is bright and tiny stamens begin to show, giving the flower head a fuzzy appearance

German statice (*Goniolimon tataricum*)
Purple, white
Height: 18 inches
Air dry—strong stiff natural stem; pick when all the flowers on a stem have opened

Perennial baby's breath (*Gypsophila paniculata*)
White, pink
Height: 36 inches
Air dry—strong stiff natural stem; pick when a majority of florets open on a flowering stem

Lavender (*Lavandula officinalis*)
Blue, pink, purple
Height: 18 inches
Air dry—strong stiff natural stem; pick as individual florets are open

Liatris (*Liatris spicata*)
Purple, white
Height: 18 to 36 inches
Air dry—strong stiff natural stem; pick when half to two-thirds of flowers are open

Sea lavender (*Limonium latifolium*)
White, purple
Height: 18 inches
Air dry—strong stiff natural stem; pick when most of the florets are open

Annuals

Cockscomb (*Celosia* species)
Apricot, orange, pink, red, yellow, purple
Height: 12 to 36 inches
Air dry—strong stiff natural stem; pick at peak size and color; color fades slightly over time

Larkspur
(*Consolida ambigua*)
Blue, pink, purple
Height: 36 inches
Air dry or use silica—strong stiff natural stem; pick when half spike florets are open, half closed

Globe amaranth
(*Gomphrena globosa*)
Pink, purple, white, apricot, red
Height: 24 inches
Air dry—tape stem to wire or attach flower to wire before drying; pick when flower heads are at peak color

Sunflower
(*Helianthus annuus*)
Yellows, maroon, orange
Height: 12 to 120 inches
Air dry—wire heads for extra support; select dwarf cultivars for flowers and taller cultivars for larger seed heads

Strawflower
(*Helichrysum bracteatum*)
Red, pink, white, yellow, orange
Height: 12 to 30 inches
Air dry—attach flower to wire before drying; pick when a few rows of outside bracts are opened but before center opens

Annual statice
(*Limonium sinuatum*)
Apricot, blue, lavender, pink, purple, white, yellow
Height: 18 inches
Air dry—strong stiff natural stem; pick when all of the flowers (the calyces) are open

Money plant
(*Lunaria annua*) (Biennial)
Height: 30 inches
Air dry—strong stiff natural stem; harvest when flowers turn into papery pods; remove outer shells to expose showy inner membrane

Bells-of-Ireland
(*Molucella laevis*)
Green
Height: 24 inches
Air dry or use silica—strong stiff natural stem; harvest when bracts are fully open; color changes to light brown or tan when dry

Love-in-a-mist
(*Nigella damasceana*)
Pink, white, green
Height: 18 inches
Air dry—strong stiff natural stem; pick when pods are firm and papery to the touch

Blue salvia
(*Salvia farinacea*)
Blue, white
Height: 24 inches
Air dry or use silica—strong stiff natural stem; pick when florets are fully open

Zinnia (*Zinnia elegans*)
All colors except black and blue
Height: 12 to 48 inches
Use silica—attach flower to wire before drying; harvest when petals are fully open, before color begins to fade

Check these Web sites for more information

ISU Extension Publications—
www.extension.iastate.edu/store/
ISU Horticulture—
www.yardandgarden.extension.iastate.edu/

Questions also may be directed to ISU Extension Hortline by calling 515-294-3108 during business hours (10 a.m.– 12 noon, 1 p.m.–4:30 p.m. Monday–Friday), or by contacting your local ISU Extension office.

Revised by Ann Marie VanDerZanden and Cindy Haynes, extension horticulturists; Tigon Woline, horticulture student; Diane Nelson, extension communication specialist. Photography by Ann Marie VanDerZanden, Peter Krumhardt, Cindy Haynes, Tigon Woline, and Jill Koch. Designed by Jane Lenahan.

File: Hort and LA 2-1