

MN 2000
FSH-45 2/2

FACT SHEET

HORTICULTURE NO. 45-1976
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UNIVERSITY OF MINNESOTA
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SEP 30 1978
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Keeping Cut Flowers Beautiful

Whether cut flowers are grown in a home garden or in a greenhouse by commercial experts, their care is a science.

To keep cut flowers beautiful longer, remember that they have been removed from their source of water, the root system; thus they will wilt quickly if not placed in water. Cut stems should be placed in water immediately as air soon will be "sucked" into the water conducting tissues and plug the cells. This is why the cut flower that has been out of water more than a few minutes should have a small portion of the lower stem cut off so that water will move freely up the stem when it is returned to water.

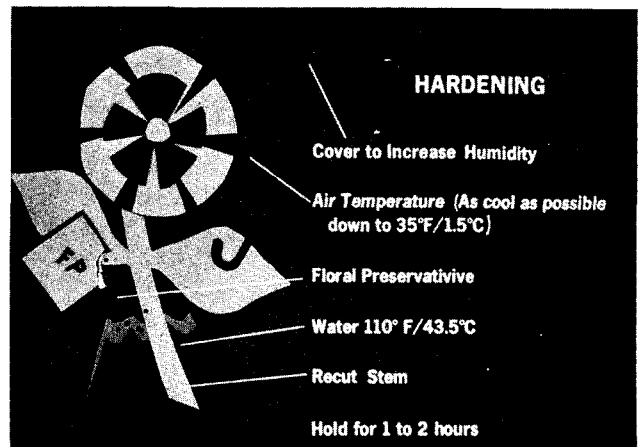
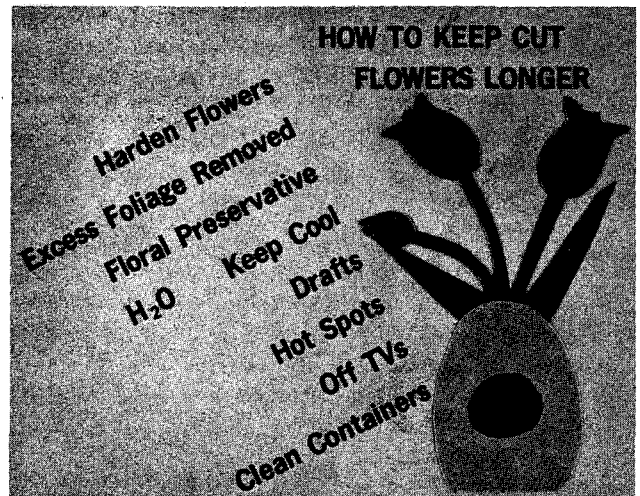
A cut flower also has been removed from a major source of food—the leaves on the mother plant. Although the leaves on the flowering stem make food, once indoors they are in a reduced light situation and this limits the food making process.

Floral preservatives in the water help, but adding aspirin, wine, or pennies to cut flowers will not help to keep them fresh longer. A floral preservative is a complex mixture of sucrose (table sugar); acidifier, an inhibitor of microorganisms; and a respiratory inhibitor. Do not attempt a home brew concoction. In a floral preservative, sucrose serves as a source of energy to make up for the loss of the functioning leaves. Sucrose insures continued development and longevity of the flower.

An acidifier makes the pH of the water more near the acid pH of the cell sap. Most water supplies are alkaline and this reduces the life of cut flowers. The acidifier also stabilizes the pigment and the color of the flower. This is why red roses turn "blue" when placed in water without a preservative or acidifier.

A microorganism growth inhibitor is perhaps the most important part of a floral preservative. Bacteria and fungi are everywhere and are ready to enter the cut surface of the stem and multiply. Prior to actual decay symptoms, cells of the water-transporting tissues will begin to stop-up (vascular blockage), inhibiting water uptake.

To aid the floral preservative in slowing down microorganisms, always clean the vase or container and the frog that will hold the stems in place. Also remove all leaves below the water surface, as they soon will begin to deteriorate. Respiratory inhibitors may be present and will merely slow down the respiration processes and aging of the flower. Follow instructions on the packet. Water and water uptake are major factors in keeping cut flowers fresh because a plant is "99 percent" water. A process called "hardening" insures maximum water uptake. It simply means placing the freshly cut stem in 110° F. (43.5° C.) water (plus preservative). Place in a cool location for an hour or two.



Maximum water uptake is attained because water molecules move rapidly at 110° F. (kinetic energy) and will move up the stems quickly. Flowers will lose less water at the cool temperature. You also could cover the flowers with plastic to raise humidity. In that one brief period while the water is cooling, freshly harvested stems, leaves, and flowers take up almost as much water as for the balance of their life. Check the water level of the container or vase daily and add water plus preservative when needed.

When flowers are arranged and placed in the home, keep them away from hot or cold air drafts and hot spots (radiators or television sets.)

While both drafts and hot spots increase water loss, hot spots reduce a flower's life by speeding transpiration (water loss) and respiration (use of stored food such as sugars) and increasing development (rate of petal unfolding).

When away from home, move the flowers into the refrigerator or the coldest (above 35° F./1.5° C.) spot in the house. Again, this will slow down water loss, respiration, and development.

Never store fruit and flowers together. Apples are notorious producers of ethylene gas, which is the aging hormone for flowers. Fruit and flowers do not mix.

Remember, to keep your cut flowers longer:

- *Recut the stems and remove excess foliage.
- *Harden the flowers by setting them in warm water and placing them in a cool place.

*Use a floral preservative in the water.

*Keep them cool and avoid drafts, hot spots, and television sets.

*Use a clean vase or container and check the water level daily.

To keep cut evergreens and Christmas trees fresh longer, supply them with a mixture of:

- 1 gallon hot water
- 2 cups corn syrup
- 1 oz. iron chelate
- 4 tablespoons liquid bleach

To make a tree more fire retardant, soak it for an hour in a mixture of 1 gallon hot water, 3 oz. sodium borate, and 3 oz. boric acid and then allow the tree to dry.