

Care and Handling Steps for Cut Flowers

KEEP YOUR WORK AREA CLEAN

Step 1: Sterilize everything. Use a professional antibacterial bucket cleaner, a kitchen sanitizing spray, a solution of one part chlorine bleach to 10 parts water, or even white vinegar.

- Clean cutting tools, workbenches and countertops twice a day.
- Clean buckets and floral containers after every use. (Rinse thoroughly, especially if using chlorine bleach.)
- Clean floors, shelves and coolers at least weekly.

UNPACK AND INSPECT

Step 2: Check the shipping temperature and unpack flowers immediately. (If you can't unpack flower boxes immediately, store the flowers in their shipping boxes in a floral cooler at 33 F to 35 F—except tropical blooms and some bulb flowers.)

- Measure the temperature inside boxes or wet packs, upon their arrival, with a needle thermometer.
- If temperatures are higher than 40 F, examine the flowers for insects, disease, yellowed leaves, and loss of blooms and leaves. If you spot any problems, isolate the flowers, and contact your supplier.

GIVE A FRESH CUT

Step 3: Clean and recut stems.

- Remove all leaves that would fall below the water line.
- Thoroughly rinse stem ends.
- Remove at least 1 inch to 3 inches from all stem ends, either under water or in air, with a sharp knife or pruner. If cutting under water, change the water (or flower-food solution) *frequently* to prevent it from being contaminated with bacteria. If cutting in air, place stems into water/solution immediately after the cut.

GIVE FLOWERS A LONG DRINK

Step 4: Place flowers into hydration and/or flower-food solutions.

- If your flowers weren't treated with hydration solution at the grower and/or wholesaler level, dip or place the stems into a hydration solution (either an instant dip or a standing solution) immediately upon recutting.

- If your flowers have been treated, you can forgo the hydration solution, if desired, and place them directly into sterilized containers half filled with properly proportioned, 100 F to 110 F flower-food solution.
- Always use flower food in every arrangement container and for the soaking of floral foam.

LET THEM CHILL OUT

Step 5: Refrigerate the flowers.

- Place most flowers (except tropical blooms and some bulb flowers, which require warmer temperatures) immediately into a floral cooler at 33 F to 35 F and 90 percent relative humidity for at least two hours, or overnight if possible, to allow them to hydrate before designing with or selling them.
- Except for design time, keep flowers refrigerated until sold or delivered, and sell all flowers within two days of receipt.

CHECK THE COOLER

Step 6: Check the cooler temperature twice daily.

- Place a thermometer in a container of water that sits in the cooler, and ensure it reads between 33 F and 35 F.
- Check relative humidity (80 percent to 90 percent is ideal) with a sling psychrometer.

ELIMINATE ETHYLENE

Step 7: Protect flowers from ethylene.

- Purchase only those flowers that already have been treated with an anti-ethylene compound.
- Control or eliminate sources of ethylene in the store, such as fruit, cigarette smoke, vehicle exhaust and dead flower/plant debris.
- Consider using an ethylene filtration system in your cooler.

EDUCATE CUSTOMERS

Step 8. Give flower food and directions to every walk-in customer, and send the same with every delivered order.

- Include at least one *10-gram* packet of flower food—enough to make one quart of solution—with every purchase.

Care solution terms

- **Hydration solutions** are designed to unplug flower stems and enable the flowers to take in water. They contain bactericides to control microbial growth in the solution and stems, a buffer (acidifier) to lower the solution pH, and a wetting agent to accelerate water uptake. No nutrient (sugar) is included in these solutions.
- **Full-dose flower foods** give nutrition to the flowers and encourage blooms to open. They are scientifically balanced formulations of nutrient (sugar), acidifier and bactericide. Additional ingredients may include growth regulators or anti-ethylene substances and agents to draw out certain salts, dirt and debris. Full-dose flower foods are designed for use with flowers that are ready for sale.

- **Low-dose flower foods**, also called **holding solutions**, have less sugar in them than full-dose flower foods and are designed for the time period when flowers are being held before use or sale.
- **One-step products** combine hydration and flower-food functions into one solution.
- **Special flower-food formulations:** These are formulated specifically to address the special needs of certain genera of flowers, such as roses, *Gerberas* and bulb flowers, as well as for different types of water.