



# FLOWER CARE **101**

# general flower care tips

## basics

- Never use softened water. The high salt content is deadly to flowers and potted plants.
- For some blooms, bottled or distilled water (not tap water) is the best choice. Tap water contains minerals and salts that may cause "pepper spots" on petals.
- Avoid dripping on petals. Allow moisture to evaporate before placing blooms in cooler. Even a micro-layer of condensation is sufficient for botrytis spores to start germinating.
- Keep cooler floors clean and dry. This is another place botrytis can occur and spread.

## bacteria

- Clean water, clean containers, and clean tools are important when preparing solutions.
- Dirty water contains millions of bacteria that lodge at the base of flower stems, blocking flow.
- Bacteria can move a minimum of 4" to 5" inches up into stems!

## solution

- Follow the label for mixing instructions - don't guess about the dose.
- Under-dosing gives poor results (bacteria soup) which wastes time & money.
- Overdosing also wastes money and has no added benefit.

## hydration vs. flower food

- Hydration formulas are sugar-free because sugar introduced too early in the system sometimes slows uptake and/or stimulates leaf yellowing.
- Flower food introduces glucose into the system to stabilize color and provide the carbo-boost needed so blooms perform to the end.
- Research proves that if only one segment of the chain uses some post-harvest treatment, longevity is still better than if no treatments are used at all.

## temperature

- Most flowers are happy stored between 36-42°F.
- However, tropical flowers and Dendrobium orchids can suffer chill damage at this temperature and should be stored at a warmer temperature (50-55°F.)

# processing tips - shipping

The following tips are imperative when receiving flowers that have been shipped, specifically by air cargo or via Fedex, as these undergo a stressful journey. However, all the information applies to flowers received from any supplier, whether a local grower, or wholesaler, and whether received in water or through the cold chain.

Much like humans, after a long trip we become tired, dehydrated, suffer from jet lag and we can feel quite limp, and in need of re-invigoration. We achieve this with food, water and rest. Flowers are no different. If you are receiving flowers you will need to prepare your water and buckets before the flowers arrive.

## **prep**

Cleanliness is key. Make sure all buckets are cleaned thoroughly, as well as all your knives, clippers, secateurs, and pruning shears. We recommend cleaning the blades regularly throughout the processing of your shipment.

Items such as Daffodils, Eucalyptus, Poppies, Tweedia that exude latex or oils can cross-contaminate your products. The water in your buckets and/or other types of vessels should always be the same temperature as the flowers. As you will be receiving the flowers that have traveled without refrigeration you can expect them to be warm. Therefore, your water should be at room temperature. Please be generous with the depth of water, but according to the flower.

## **upon arrival**

When you receive the box or boxes, the lids should be removed from all the pieces. This will allow warm air and gases such as ethylene to exit the box or boxes - very important on large shipments. Once this is done, return your attention to the first box, and remove the items onto a rack or table.

**DO NOT UNWRAP.** Let the products acclimate to your environment. Repeat this with each box until all items are removed from boxes.

Return to the contents of the first box. Identify the delicate items: Maybe it is late summer and you have ordered tulips, anemones, ranunculus. Lily of the Valley and Viburnum flowers are delicate most of the year. Poppies can be very limp, as can calla lilies. Wrap these items entirely in a moist but not wet paper towel, and place laying down on a shelf in the fridge. One hour up to four hours - NO Fruit.

# processing tips - shipping

## processing

Once these items are dealt with the rest of the flowers from the first box should be processed. At this point, you can cut the stems of each bunch of flowers, but DO NOT UNWRAP. The wrapping helps to support the flower stems as they hydrate. If not supported flowers with heavy heads will droop, making the uptake of water exceedingly difficult, and will stress the flower as it has an innate desire to lift the heads. The water rises up the stem through capillary action hydrating the stem cell by cell. If the stems are not supported flowers with heavy heads, such as Anemones, Garden Roses and Calla Lilies will never have the opportunity to raise their heads and will "set" in the drooping position. Unless you want curved stems for some aesthetic purpose, all flowers should be supported at this stage. This allows the flowers to reinvigorate themselves in the fastest and most efficient means possible.

Incidentally, I recommend cutting all stems on the bias, at a 45° angle. You expose more surface area of the vascular system to water, and you also prevent blockage of the stems that can rest squarely on the bottom of the bucket.

If you have more than one box, process the contents of each box in the same manner. All the flowers should hydrate for at least one hour in this way. If the paper gets wet, that is fine, as the cool water will wick upwards and provide additional moisture to the foliage and stems.

After an hour or so, and preferably up to four hours, then the flowers can have all packaging removed, and be processed as normal, including cleaning foliage that may fall under the water.

If you did put flowers in the fridge, after some time, these can be processed into the prepared COLD water, and with sleeves or wrappers till on. At this point, if you purchased the flowers from Mayesh, you should evaluate the flowers. If you see any issues, please take pictures with your phone, which can be used should you need to get credit if that is necessary. Hopefully, there will not be any problems.

Even though the flowers are unwrapped, the bucket or container ought to be of an appropriate size to support the flower stems, leaving the blooms well above the rim. The blooms should never be below the rim of the bucket, and buckets should not be overfilled to a point where air cannot circulate below the rim of the bucket. If there are too many flowers in a bucket, especially ones with a lot of foliage, the lack of air will cause foliage to atrophy, turn yellow, and can promulgate disorders with the blooms. Therefore, plenty of buckets/vessels are highly necessary as well as a diverse selection of sizes.

If you have a cooler, and keep the water in the cooler, then the flowers will need to be cooled down to the temperature of the water, in the cooler. I would still advocate opening the boxes outside of the cooler to release any trapped gases unless you are content that the boxes have remained cold throughout the journey. Other than that, the unpacking procedure would be the same

# handling tips

## BY FLOWER

### ANEMONES

- Use a hydrating solution intended for bulb flowers from your favorite brand.
- Pre-cool your floral solution and flowers to the same temperature.
- Cut stems at an angle with a sharp, clean knife.
- Anemones are phototropic, meaning they grow towards a light source. Because of this, they should be hydrated standing upright directly under a light source.



### CLEMATIS

- Use a standard hydrating solution.
- Pre-cool your floral solution and flowers to the same temperature.
- Remove all foliage from under the water line.
- Cut stems at an angle with a sharp, clean knife.

### CALLA LILIES

- Use a hydrating solution intended for bulb flowers.
- Pre-cool your floral solution and flowers to the same temperature.
- Cut stems at an angle with sharp, clean knife.
- Don't hydrate or immerse callas in deep water as this may cause stem rot; only a few inches is needed.
- If straight stems are required, the callas need to be wrapped tight around the length of the stems, prior to hydrating. The blooms should be exposed.
- A strong overhead light source (i.e. skylight or Gro-lites) will help



# handling tips

## BY FLOWER

### DAFFODILS

- Daffodils should always be cut and maintained in separate buckets from other flowers.

They produce a milky sap that can be detrimental to many other flowers



### DAHLIAS

- Use a hydrating solution intended for bulb flowers from your favorite brand.
- Pre-cool your floral solution and flowers to the same temperature.
- Remove all foliage from under the water line.
- Cut stems at an angle with a sharp, clean knife.
- Cut dahlia stems bleed proteins, amino acids, sugars and minerals which are a breeding ground for bacteria.
- Hydrating solution should be changed more often with this flower to prolong vase life.
- Store dahlias at 40-44°F. Blooms suffer chill damage when stored four plus days colder than 40°F.

# handling tips

## BY FLOWER

### EUCALYPTUS

Eucalyptus exudes an oily vapor, especially in warmer temperatures that can be very injurious to roses, causing them to “fall asleep”, becoming soft and unproductive. It is best to keep eucalyptus apart from the flowers, especially roses



### GARDENIAS

- Use a standard hydrating solution from your favorite brand. Gardenias are sensitive to high salt and chlorine levels in water.
- To prevent burning the fragile blooms, you may hydrate them by cutting the stem just under the flower and float the bloom in distilled water instead of tap water.
- To prolong vase life, you may spritz the open blooms with distilled water or a product like Hawaiian Mist to further hydrate the flowers.
- Gardenia flowers are sensitive to mechanical damage from handling. They are also sensitive to oils produced by human skin. Keep hands clean and wet when touching the blooms to avoid browning and bruising.

# handling tips

*BY FLOWER*



## GLORIOSA LILIES

- Keep in an air-filled shipping bag NO longer than 5 days (botrytis pressure).
- Remove from bag, cut stems and treat in your favorite flower food.
- To avoid chill damage, store at 50°F.

## HELLEBORES

- Use a standard hydrating solution from your favorite brand.
- Pre-cool your floral solution and flowers to the same temperature.
- Remove all foliage from under the water line.
- Cut stems at an angle with a sharp, clean knife.

## HYDRANGEA

- Use a standard hydrating solution from your favorite brand.
- Pre-cool your floral solution and flowers to the same temperature.
- Remove all foliage from under the water line.
- Cut stems at an angle with a sharp, clean knife.
- With woody stems like hydrangea, you can use a potato peeler to remove the epidermis (outer woody layer) to expose the phloem (the dermal layer just under the surface of the plant that transports nutrients to the bloom heads). This will aid hydration by maximizing the area of the stem that is available to take in water.

# handling tips

## BY FLOWER

### LILY OF THE VALLEY

- Use a hydrating solution intended for bulb flowers from your favorite brand.
- Pre-cool your floral solution and flowers to the same temperature.
- Cut stems at an angle with a sharp, clean knife.
- Convallaria is sensitive to high salt and chlorine levels in water. To prevent burning the fragile blooms, you may hydrate them using distilled water instead of tap water.

### PEONY

- Use a hydrating solution intended for bulb flowers from your favorite brand.
- Pre-cool your floral solution and flowers to the same temperature.
- Remove all foliage from under the water line.
- Cut stems at an angle with a sharp, clean knife.
- To open quickly, use a floral product like "quick dip" to accelerate hydration and bloom development.



### PHALAENOPSIS

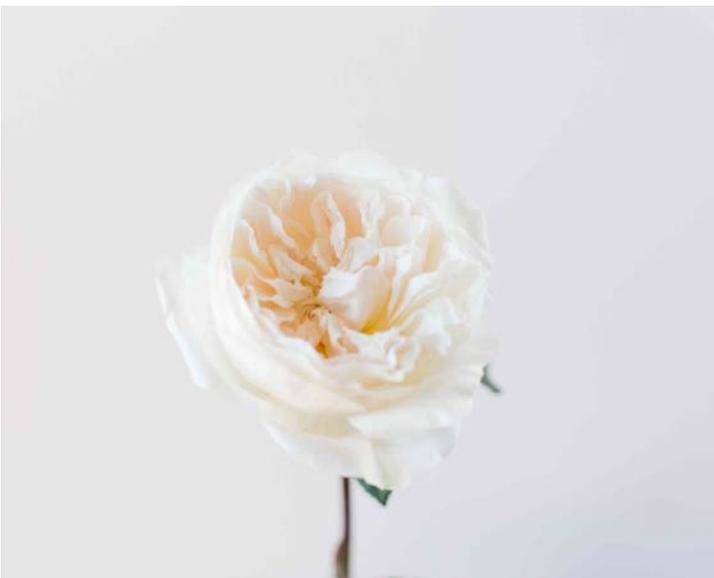
- Use a standard hydrating solution from your favorite brand.
- Adjust your floral solution and flowers to the same temperature (50 to 55°F is preferable for hydrating and holding tropicals.)
- Cut stems at an angle with a sharp, clean knife.
- Phalaenopsis are sensitive to high salt & chlorine levels in water. To prevent burning the fragile blooms, you may hydrate them using distilled water instead of tap water.
- To prolong vase life, you may spritz the open blooms with distilled water or a product like Hawaiian Mist to further hydrate the flowers. Avoid getting moisture into closed buds as this can cause botrytis to occur.

# handling tips

## BY FLOWER

### ROSES

- The day the roses arrive, open boxes and spread roses on a rack in the cooler for at least an hour and up to four hours prior to cutting and placing in water.
- Water should have a correct dose of hydrating solution (Floralife; or equivalent from Chrysal etc.). Do not use flower food at this stage.
- Do not plunge cold stems into warm water or warm stems into cold water as the shock could cause a blockage in the stems, and they may not hydrate properly.
- Do NOT unwrap the roses until they have hydrated for at least an hour, and preferably two to three.
- After two to three hours you may loosen the cardboard sleeve and remove it, but can leave the plastic sleeve in place. It is not recommended to leave the cardboard sleeve on longer than 24 hours once they are in water.
- Use very sharp and clean cutting equipment, blades and knives.
- Maintain your roses in buckets that may be full but not packed tightly. Keep roses away from breezes, drafts, and fans.
- It is necessary to change the water and re-cut the stems every 2-3 days to ensure maximum vase life. This is an especially important step if you have a large volume of roses per bucket as this can contribute to bacteria growth.
- Remember to remove any leaves that will fall below the water line in the buckets as this can cause copious amounts of bacteria and organic material to block stems from drinking water properly.
- Leave the guard petals on until you are close to using for an order. Removing them initiates a signal to the flower to start opening.



### SNAPDRAGONS

- Snapdragons are geotropic. This means they are prone to the forces of gravity, and if lain horizontal, the growing tips will curl upwards, which is generally not a desirable characteristic.
- These flowers should never be in an unrestrained horizontal position. They are best kept upright whenever possible.

# handling tips

*BY FLOWER*

## STEPHANOTIS

- Use a standard hydrating solution from your favorite brand.
- Pre-cool your floral solution & flowers to the same temperature.
- Remove all foliage from under the water line.
- Cut stems at an angle with a sharp, clean knife.



## TULIPS

- Tulips are phototropic, meaning they grow towards the light. Therefore, they should be stored in the dark, or with a light source directly overhead. If placed near a window they will grow and bend towards the light. On the other hand, there is nothing so delightful as a bouquet of French Tulips writhing like snakes towards the light from a side window.
- Tulips tend to keep growing after they are cut, so stems can grow in an arrangement, perhaps distorting the design. A pin placed through the stem about a quarter inch below the flower helps counteract this.
- Incidentally, if using Cyclamen blooms, a pinhole created about a quarter inch from the bottom of the stem really makes this a viable flower.