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Care & Handling

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Hot and dry with no rain expected! With a summer forecast like this, what can we as flower handlers expect with flowers and with water? Let's look at flowers first.

During this super hot weather, extra care is really needed to ensure maximum flower lasting life from harvest in the greenhouse through to the final arrangement going out to customers.

Greenhouse flower producers must ensure blooms spend a minimum amount of time between harvesting and getting the crop into water and then into the refrigerator.

Wholesalers must be certain the crop is not exposed to excessive conditions of stress (too long out of water, etc.) while it is in their hands.

Retailers have to check the flowers they receive to make sure they are of good quality and will give the ultimate consumer value for their money. Blooms must be checked immediately upon receipt. If they are severely dehydrated, they may be beyond the point of no return. If this is the case, you should refuse delivery and call your supplier. If they are okay, then follow the recommended procedures for rehydrating the blooms.

Be absolutely certain the stock buckets you use are squeaky clean and sanitized. In hot weather, bacteria and fungi reproduce at an extremely rapid rate. Any plant debris or algae still remaining in a bucket into which new flowers are placed will be the source of organisms that will rapidly multiply and shorten cut flower life.

After rehydration, use a floral preservative at the rate recommended by the supplier. If you use less than the recommended amount, you are doing the flowers little good and only wasting your money.

Regardless of what is done by all links in the chain of life to extend cut flower life, those arrangements placed in non-air conditioned environments, where temperature may rise into the mid to high 80's or higher, are not going to last as long as they would at cooler temperatures.

As temperature increases, the energy-consuming process of respiration that goes on at all times in plants also increases, thus the carbohydrate reserves of the plant (flower) are more quickly exhausted.

In air conditioned environments flowers lose water via the transpiration process more rapidly than in non-air conditioned environments at the same temperature; the reason being the air conditioning process removes moisture from the air and thereby reduces relative humidity.

So much for the flowers, what can we expect with the water?

For city florists there is probably not going to be much of a change in the chemical content of their water as a result of the drought.

However, for small town users and those on their own wells, as drought conditions persist and water supplies decrease, the concentration of soluble solids, also known as total soluble salts, will increase. This is because there is less volume of water to dilute these salts.

What this means for the florist is they may have to add a little extra floral preservative to their arrangements to obtain the desired result.

In some localities the pH of the water and the alkalinity content may also change due to

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the increased concentration of chemicals dissolved in the water.

Not related to drought conditions, but important to the lasting life of potted plants, is the element fluoride. Fluoride is routinely added to water supplies of some cities and towns as a tooth decay preventive. In some areas of the country, such as Florida, high levels of fluorides are naturally present in the water supply.

The amount of fluoride usually added by city water treatment authorities is one ppm. That is one part per million. The amount of fluoride that has been known to cause damage to certain tropical foliage crops is one-quarter ppm.

Those that are fluoride sensitive are calothea, cordylene, chlorophytum, dracaena, maranta, pleomele, stromantha, and zebrina. In addition, lilies are also affected.

The typical injury seen is a tip burn, which may result in a die-back of one inch or more of the leaves.

British researchers have stated there is documentary evidence that the vase life of cut flowers is generally reduced in fluoridated waters. This may be due to the fact that fluoride is a known respiration inhibitor and when respiration is inhibited, contrary to what might be thought of as a conservation of energy, cut flower life does decrease.

Gladiolus, gerberas, freesias, roses, and poinsettias are all given as examples of cut flowers that have shortened life when placed in fluoride treated solutions.

If your water supply is fluoridated, there really isn't much you can do to avoid the problem except to change your supply source or use distilled, deionized, or reverse-osmosis treated water.

Under no circumstances should florists use water for their arrangements that has gone through a conventional home-type water softener.

In these units, sodium ions are substituted for calcium and magnesium ions that are the cause of hardness in water. In addition to increasing the total soluble salts of the water, the sodium ions also cause an increase in the pH of the water.

No matter how you look at it, softened water is not good for either cut flowers or potted plants.

During periods of water shortages, conservation minded people may think it a good idea when their flower arrangements have died to use that remaining solution to water their shrubs or other small plants.

This is an unwise practice as the chemicals in these solutions that extend cut flower life will cause severe damage when applied to the root systems of living plants. Dispose of these solutions down the drain.