

# Best Floral Care Requires Keeping Cool

Importance of temperature and cold chain remain key to floral care and handling.

In today's floral industry, the majority of cut flowers in the U.S. are imported from other countries, reinforcing the importance of adhering to proper care and handling procedures to ensure each stem arrives in peak condition.

Thankfully, advancements in temperature technology and cold chain management help imported flowers arrive healthy and vibrant, with plenty of vase life remaining.

## Extending the Life

The cold chain is arguably the most important link in floral management, and it must start almost immediately postharvest. It should remain consistent throughout the flowers' journey, from field to floral professionals with coverage in transport and customs, and continuing at its shop destination.

The key factor throughout the cold chain process is effectively maintaining a cool temperature somewhere between 34-38 degrees Fahrenheit (1.1-3.3 degrees Celsius).

The importance of the cold chain begins in the fields, once flowers are picked. The process includes hydrating and treating flowers in a refrigerated room in order to remove field heat before being graded, bunched and sleeved in a cooling hydration system. Flowers should continue staying cooled as they leave the farm.

Today, most trucks transporting flowers include refrigeration, allowing flowers to remain cool until they're loaded onto a plane. But even that process is now also temperature-controlled. Once the airfreight lands, it's immediately placed in a refrigerated hall at the airport for inspected by customs officials. Then it's back into a refrigerated truck and sent onto its final destination.

## Consistency is Key

Throughout the floral journey, it's imperative that the temperature of the flowers doesn't vary during its travel process. Adhering to guidelines is essential, and avoiding too much fluctuation is key to having shipments arrive intact with plenty of vase life.

Because flowers can easily become stressed when temperatures fluctuate repeatedly, it could cause them to

produce ethylene and develop condensation inside the flower packaging.

Relative humidity also plays a role as water in the air can hurt a flower's shelf life. Flowers in transit will lose water, which can lead to bent necks and premature wilting. Because of this, relative humidity should be approximately 75-85 percent. With anything higher, condensation will occur, which could cause botrytis to develop.

## Don't Ignore Cold Chain

Upon arrival, flowers should be immediately placed in cold storage – at a temperature equal to what they traveled in. In addition, grocery staff should think about flowers separately from produce. Although both need to go through a similar process of cooling, flowers need to be stored in a clean, non-produce (if possible) cooler, as they can be easily damaged by the ethylene gas produced from some ripening produce.

Anyone in the floral industry who doesn't pay attention to temperature or proper cold chain management risks learning the hard way that this can be detrimental to a business. The care and handling flowers get – whether from farm to florist or farm to mass market – remain the most important steps in providing the best flowers that keep customers happy and returning.

Among the best practices for cut flowers, adherence to correct temperatures and attention to cold chain management are the easiest protocols to follow, with results that prove it's well worth the time and effort. ■

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