

GOLDBLOCKS KNOWS BEST: MAKE THE TEMPS JUST RIGHT

THE PATIENT Ill-tempered Flowers

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THE SYMPTOMS Wilted flower, short-lived flower, high incidence of disease

Barely a day goes by when we aren't reminded that a balanced, low-fat diet rich in fruits and vegetables, adequate exercise and proper weight control will help beat heart disease, diabetes and obesity, the three main health issues facing those living in the U.S.

The Examination

What does this have to with your flowers and business? More than you think. In the flower world, exposure to ethylene, high temperatures or dirty solutions leads to an unhealthy, short-lived flower just like heart disease, diabetes and obesity do to us. Flowers need a healthy lifestyle — but they depend on you to keep up the regimen and reduce their risks.

Many factors must align to extend a flower's life — and none is more important than temperature. Research consistently shows that keeping flowers cold during transit, storage and display reduces respiration rates, conserves the flower's carbohydrates, reduces the incidence of diseases and increases quality and flower life. Flowers are also less

sensitive to ethylene when they are held at low temperatures.

Need proof of this cold comfort? Take a look at the 'Charlotte' roses in the photograph. Both vases of flowers were displayed for six days, but the flowers on the left were displayed at 35 degrees, compared to 70 degrees on the right. At the retail level, this healthy routine is easy to follow. But just as humans live on Cinnabons and fast food when at the airport, flowers too can get thrown off their game in transit. And since most flowers are transported long distances, the major challenge is keeping them cold throughout the distribution chain.

The Diagnosis: Hot Flashes

To test the "real life" system, we placed temperature recorders in flower boxes leaving farms in Colombia and going through the normal air transport to Miami, through the exporters and importers and then onto refrigerated floral trucks that delivered to our lab. Flowers arrived within five to seven days. We found a constant flux of temperatures during transport. The prime times for temperature volatility were during loading and unloading into planes and trucks. But don't just blame the loading docks. We also discovered less-than-optimal temperatures in transit from the farm to the airport, on the planes and in the trucks. Temperatures reached as high as 80 degrees and rarely dipped below 35. Little research has been done to determine how flowers react to fluctuating temperatures and what the tolerance limits are. We do know it takes a box of flowers that were held at 35 degrees only a few hours to reach 80 degrees and visa versa.

CHILL OUT The vase of 'Charlotte' roses on the left was displayed at 35 degrees, compared to the 70 degree climate suffered by those on the right.

A segment of the industry is using farm-direct delivery methods in which flowers are delivered via rapid carriers within 24 hours with no temperature controls. We have found flowers shipped this way can have excellent vase life and quality as long as the flowers have been hydrated and have not been stored at the farm. Freshness and speed is the key here. Excessive temperatures and higher sensitivity to ethylene is always a risk.

The Cure: Prevention

Once a flower has been shipped hot, you have to use it or lose it, and fast. Hydrate your flowers in freshly made solutions immediately upon arrival, avoid storing flowers if possible and keep them cold at all times.

The industry has made cost-effective improvements to maintain the temperature chain. The advent of pre-cooling and vacuum-cooling flower systems in the 1970s has contributed greatly by lowering temperatures in shipping boxes in a fast and furious manner. Other obvious solutions involve moving product as quickly as possible while loading and unloading, placing cool packs and insulating materials in boxes and keeping storage coolers and refrigerated trucks at low temperatures. The increased use of floral display coolers, where consumers are able to view flowers kept in the cold, is a colossal step in maintaining the cold-chain.

So do your part, get in the healthy habit of keeping your flowers cold during storage and while on display. And don't forget the flower food packets to send along to your customers; flowers need a healthy diet to keep fit and have a long life. 🌹

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