ARM YOUR CUSTOMERS WITH LIFE-SAVING TECHNOLOGY

THE PATIENT Roses
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THE SYMPTOMS Reduced vase life

> The mind boggles at the advances in technology made in our lifetime: Cloned animals, genetically modified plants, gene therapy that restores vision. Work in labs has dramatically changed what we put in our vases and into the hands of consumers. Beyond the cosmetic enhancements of new colors and shapes, technology is responsible for making many species resistant to diseases, pests, drought, unfavorable temperatures and ethylene.

Technology is why the 'Osiana' roses on the left look better than those on the right. But flowers can't upgrade themselves. They depend on growers, shippers, wholesalers, retailers and consumers to use the full arsenal of know-how and tools at their disposal.

The Examination

When roses die prematurely or fail to open, it could be due to myriad reasons: high temperatures, lengthy storage times, bacteria-laden solutions, susceptibility to ethylene or improper handling techniques. And some varieties just live longer than others.

The Diagnosis

But the reason the roses on the right died in just five days is simple. These roses were denied the most basic of technology: flower food. These flowers were kept in water and died prematurely, about 13 days before the death of those treated to a satisfying meal of flower food.

The Cures

Specialized treatments have revolutionized how we handle the most complex, devastating postharvest problems. We can prevent leaf yellowing, protect from the detrimental effects of ethylene and reduce the tiny microbes that block stem cells and reduce water uptake. Many of these preventative measures are most effective if done one to two hours after harvest or at the wholesaler, especially when it comes to leaf yellowing and ethylene exposure.

That doesn't mean retailers are off the hook in treating the flowers.

Although humans could (gasp!) survive without their designer vitamin-enhanced, pro-biotic waters and energy drinks, flowers need more than just good ol' H_2O. Florists should use commercial hydration solutions that contain biocides, a buffer to lower pH and a wetting agent to accelerate water uptake. (Your suppliers should also be using them.) Wholesale florists and retailers should use hydration solutions for one to two hours or overnight followed by either a holding solution (one with a lower sugar content) or flower food until the flower is sold. Flower foods have similar components to hydration solutions but contain nutrients, and therefore, are necessary for promoting flower opening and increasing vase life.

Flowers have their own version of designer fluids — species-specific solutions for cut flowers such as bulbs, gerberas and roses. Our tests showed a 38 percent increase in the vase life of cut roses treated with a specialized rose food, compared to the one-food-fits-all solutions. Alstroemeria and lilies benefit from specialized bulb food, available from most of the commercial flower food companies.

Preventative Measures

Preventing problems before they arise is the key to maximizing postharvest performance of cut flowers. Using specially formulated treatments will aid in eliminating major postharvest problems and prolong vase life and quality. Make sure your flowers are pre-treated properly. Keep flowers away from ethylene sources, hydrate immediately upon arrival, don't store for long periods, and maintain at proper temperatures during display. Choose long-lasting, high performing varieties. We tested more than 60 varieties of cut roses and found vase lives between three and 21 days.

BUD, I'M HUNGRY **Flowers need food and water to live full, vibrant lives. The roses on the left fed on solution-enhanced water; those on the right didn't.**

What's Next?

Floriculture researchers are working on drought and cold tolerance, flower fragrance, flower color and vase life. Genetic-modification techniques — already responsible for making carnations, petunias, campanulas and kalanchoes insensitive to ethylene — will soon result in the first blue rose in the marketplace.

These advances are mind-boggling, eye-opening and potentially market-increasing, but they won't do much good if these stronger, more fragrant flowers die just days after customers take them home. So don't forget a final, crucial, simple step — provide your customers with the right flower food. This simply technology is life saving for cut flowers and your business.

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