

## Pick a Solution, Not Any Solution

By Gay Smith

YEARS AGO, AS I WAS GETTING READY TO VISIT A friend in Ecuador, I called to see if there was anything she needed from the States. After a moment's hesitation, she asked me to pick up a Barbie doll for her daughter's upcoming birthday. No problem, I thought. How hard could it be to pick up a Barbie doll? That was before I visited the neighborhood Toys R Us. I still laugh recalling my disbelief (and confusion) as I stood amidst more Barbie styles than I knew even existed.

When you stand in the postharvest solution supply aisle at your favorite wholesaler, are you gripped with similar feelings? With so many brands and prevailing urban myths about solutions made with pennies, vodka and aspirin, choosing appropriate flower treatments seems overwhelming; however it is possible to move from "I'm confused" to "I know why I'm choosing this specific product!"

### Solution Solutions

Before we go further, let's break down some key terms:

■ **Hydration solutions** acidify the water which helps dissolve air bubbles and boost flow. They contain biocides to keep pollution in check.

■ **Flower foods** do all of the above plus they contain sugar (generally glucose) to provide energy for bud opening, color stabilization and fragrance potential (if it exists). Flower foods fall into three basic categories: **low-sugar** for processing and display buckets, **food that also contains hormones** needed for bulb flower issues and **full-sugar** food for filling vases and soaking foam.

■ **Sanitizing solutions** are generally chlorine based and keep pollution in check. No sugar, no acidifier, no wetting agent to boost flow. They can be as basic as bleach or as "sexy" as slow-release chlorine pills, which remain "active" for three to four days (bleach loses its "active" power within hours). Smell is not an indication that the solution is still active.

■ **Any solutions.** Air bubbles are better dissolved and

### Goo be Gone

**W**hy do you need solutions at all? After harvest, flowers need water and nutrients (e.g. sugar and sometimes hormones) to continue developing in the vase. When stems are cut, flowers release carbohydrates and enzymes into the solution. Organic material (dirty buckets) and cells from ragged stem ends (cut with dull tools) provide additional "food" for bacteria, fungi and yeast populations. All of this gunk is "bioload." Bioload and air bubbles block flow in stems.

— G. S.

move more quickly in stems that are in cold water vs. warm, so mix solutions with cold water or pre-chill buckets prior to adding flowers. Since bioload (See "Goo be Gone" box) concentrates primarily in the bottom inch or two of the stem, cut stem ends before plunging flowers into any solution (even water).

### One Size Fits None

To maximize vase performance, use products best suited to the flower's need.

**Gerberas** are the *Mr. Clean* poster child of the flower world. Bacteria plug these blooms fast, and they don't need sugar to open the bloom or stabilize color. They just need super-clean buckets and a chlorine pill. If you use gerberas in mixed bouquets, consider dropping a pill in the solution to keep the gerbs upright.

**Foliage, anthurium and heliconia** also respond well in solutions mixed with a chlorine pill — there's no flower opening, and sugar sometimes stimulates leaf yellowing in cut foliage.

**Lilies, iris, tulips, alstroemeria and gladiola** hydrate easily, but they suffer from hormone imbalances once harvested. Process these flowers in a low-sugar flower food containing hormones to avoid premature yellow foliage and bud stagnation.

**Roses, snaps, hydrangeas and monkshood** need sugar to push open florets or blooms. Process these flowers in display solution (low-sugar flower food).

**Stock, sunflowers, celosia, amaranthus and zinnias** — flowers that foul the water fast or are especially susceptible to bacterial plugging — benefit from a chlorine pill in the processing solution, for extra pollution control.

Fill your **foam bins and vases** with a full-load flower food and top off buckets and vases with fresh solution (not tap water). Remember, flowers on their way to the consumers' home may never get another drop of anything, so they need a "rich" solution. Never consolidate solutions when consolidating flowers in buckets. Measure when mixing, so the ratio of biocides, sugar and acidifiers are in sync, otherwise there's not enough biocide to control pollution.

### Price isn't King

When making care and handling decisions, avoid using price as your guide. Instead, make a few comparison tests during slow summer months to evaluate which brand works best for your water type and shop logistics. Of course, you'll need to know what it will cost you, so calculate the price of ready-to-use solutions, rather than comparing the price of one jug of concentrate to another.

Make 2007 the year to focus on processing treatments as a wise investment rather than an operating cost. 🌸

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