

Care and Handling



SUSPENDED STEMS Hanging gerberas ('Testarrosa' shown here) while hydrating them reduces their tendency to bend.



DROOP-PROOFING Gerberas supported with chicken wire during hydration for four days at 35 F (left) are less likely to droop than those not suspended (right).

CURE THE BENDS

> The now ubiquitous gerbera daisy was discovered in the subtropical area of South Africa's Mpumalanga province, which features the flower on its flag and coat of arms. More than 500 varieties of gerbera in a broad range of colors and sizes now fill vases, Volkswagen dashboards, ad campaigns and buckets around the world. Given their subtropical African origins, these trendy hotties are sensitive to cold.

But the beauty and value of the gerbera can be diminished by stems that collapse or fold four to six inches below the flower, causing flowers to wilt prematurely or become infected with *Botrytis*. Often, plastic straws or florist's wire can reinforce stem strength, but these are stop-gap measures that cannot substitute for proper care and handling. Proper care by growers, wholesalers and retail florists can reduce or eliminate these problems, reducing loss and increasing profit.

Buy Right. Gerbera blooms are actually many individual flowers. The flower head is composed of inconspicuous small flowers in the center (disk florets) and large outer "petals" (ray florets) that give gerberas their array of bright colors. Blooms should have two to three rows of disk florets open at the time of purchase. Florets continue to open as the flower ages, so the more florets open, the older the flower. *Botrytis* is seen most often on older flowers, during periods of high humidity in unsanitary conditions. Stem

folding, stem bending and wilting are all related to poor water absorption by stems. Chilling injury can also cause stem bending in some varieties. None of these has been associated with ethylene sensitivity.

Water uptake is critical. Studies show that gerbera flowers that absorb the most water are less likely to fold and wilt. Cut one to two inches of each stem with a sharp knife immediately prior to hydration. Do not use any device that crushes or damages the stem. Place freshly cut flowers in freshly mixed hydration or flower food solution. Store in the cooler at 33 to 35 F. If varieties exhibit stem bending following cooling, keep them at between 45 to 50 F.

Let them hang. Yes, you read that right. Suspending flowers during hydration minimizes or eliminates stem bending. You can place stems through a piece of wire or perforated mesh placed over a hydration bucket. Let them hang in the hydration solution so the base of the stem does not touch the bottom of the bucket.

Sanitation is vital. Wholesale and retail florists should scrub cooler floors, tables and walls with a commercial disinfectant regularly to prevent *Botrytis* contamination in coolers. Gerbera stems have many trichomes (hairs) on the stems that collect and hold small particles of dirt and debris. These can be contaminated with microbes. Microbes will grow in water, clouding the solution

and clogging the stems. Contaminated solutions reduce water uptake and increase problems with stem folding, stem bending and wilting. It is extremely difficult to control microbial activity on gerberas, but prevention offers the best results. Most growers use commercial solutions of slow-release chlorine for hydration and purification of the stem or purchase commercial products formulated specifically for gerberas.

Wholesale and retail florists should sterilize everything coming in contact with gerbera flowers and stems, including buckets and clippers. Dip the stems in a commercial solution prior to hydration to sanitize the stem. Use a commercial flower food, properly mixed, to accelerate water uptake. Citric acid and/or bleach solutions do not provide the complex combination of materials offered by commercial products and therefore are not as effective. By purchasing gerbera flowers with no more than three disk florets open, observing strict sanitation in the cooler and design room, and suspending stems in freshly mixed flower solutions, your gerbera stems should stay strong. 🌸

Terril A. Nell, Ph.D., AAF, is professor emeritus, University of Florida, Gainesville and Ria T. Leonard is research manager of UF's environmental horticulture department.