

Care & Handling

Pop Gerbera Cultures

By Gay Smith

QUICK! NAME THE FLOWER MOST WIDELY recognized by consumers, especially in the last five years. Need hints? It's used in Gap store banners and on yogurt containers. It's available in a variety of colors and has the most popular flower shape recognized by John and Jane Public. If you've been on the lookout for trends the floral industry can hang its hat on, no doubt, gerbera daisies come to mind.

Still, gerberas come with frustrations. Everyday, I get questions about Botrytis, flowers that conk or don't re-hydrate and spotty petals. Some of the quality issues wouldn't be such a big deal except gerberas are hard to substitute: What other flower conveys contemporary cheeriness while personifying "retro" trends to Gen X and Y flower-buyers?

The Basics

Clean buckets and solutions free of bacteria, molds, fungi and organic material or "green bits" are of utmost importance for gerberas.

Blooms also need to be kept dry, as gerberas are sensitive to **Botrytis** — some varieties more so than others. Often, when designers pull out one stem they inadvertently drip water on the "eye" of another bloom. Sometimes, stem tissues get scraped as flowers are pulled from cardboard collars. Since the center of a gerbera flower (the disc) is tightly packed, water snuggles in, rather than running off or evaporating. The dense flower centers create a perfect spot for Botrytis spores to germinate. Scraped stems also make perfect wound entry sites for bacteria infection or disease spores. As Botrytis develops, the disease compromises the neck tissues in gerberas and heads rot off.

Cut point is another factor affecting vase performance. Cut too soon and gerbera stems don't have sufficient lignous material in the stem cells, causing heads to droop. The correct cut-point is when two rings of anthers show in the flower disc.



GERBERAS GALORE Ever-Bloom, in Carpinteria, Calif., is the largest gerbera grower in the United States, with more than 240 varieties available.

The Quality Question

The onslaught of new gerbera introductions in the past 10 years has been fast and furious and some of the poor vase performance may have resulted from varieties being "rushed" to the market without comprehensive testing. Good quantitative testing must include **transportation simulation, resistance to Botrytis and real-life handling practices.**

Temperature management is another point. During their Perishables Research Organization (PRO) Institute lectures, George Staby, Ph.D., and Michael Reid, Ph.D. of the University of California-Davis, show how sloppy temperature management affects flower growth. For instance, **flower head nodding and bending occur when gerberas are shipped or held dry at temperatures above 36°F.** Higher temperatures trigger cell elongation: As cells divide, stems grow and bend.

Quality also is affected by **product-rotation time and transit time from farm to end-user**, amplifying the need for close attention to temperature management.

— G. S.

Solving Solution Requirements

In post-harvest, growers treat gerberas with chlorinated water. Often, household bleach is the chlorine formula of choice. However, while bleach (sodium hypochlorite) is cheap and aggressive, it's not stable. Ever notice the expiration date on the bottle of bleach? When diluted, it loses its antibacterial effect — a strong smell is not an indication of chemical strength. The "active" antibacterial power of chlorine also is a one-time expenditure. Once chlorine kills microbes, it becomes inactive, meaning flowers going into dirty buckets never receive the benefits of bleach. The antimicrobial action is depleted just fighting existing pollutants.

The popularity of gerberas in mixed bouquets has put pressure on postharvest solution manufacturers to come up with a longer-lasting solution for gerberas. Chrysal and Floralife have a chlorine-based treatment that is stable and active for up to three days. The new formulas are easily applied (effervescent pill form), making them suitable for use at every level and at inexpensive prices. Growers and bouquet makers from Europe, California and the United Kingdom have been impressed with improved vase results of gerberas treated with gerbera pills. 🌻

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