

handle with care

By Bruce Wright

What to do when flowers arrive in the shop.

Does your shop have a written set of procedures for processing flowers? If you do, do you stick to them? Most florists know what they *should* be doing, but all too often, they allow other demands on their time to get in the way. They take shortcuts, simply because they don't make care and handling procedures a top priority.

It's understandable. Your flowers look fine when they arrive in the shop and when they leave the shop. You lose a few to shrinkage, but if you're like many florists, you don't really know how many, or the dollar value of that loss. Shrinkage aside, the main benefits of good care and handling aren't visible in the flower shop. It's the consumer—your customer—who experiences the difference between an arrangement that lasts a few days and one that lasts a week or longer.

You're busy. You have bills to pay, arrangements to create, deliveries to make. Those buckets look perfectly clean; they don't *appear* to be crawling with bacteria, so why wash them? And so on and on.

Checklists are abundant, available on many different floral-industry websites. Among the best, in case you're not already familiar with it, is the website of the Chain of Life Network®: www.chainoflife.org. Started in 2002 by George Staby, president of the Perishables Research Organization (PRO), and supported in part by the Ohio State University, the Chain of Life maintains a database of continually updated information on postharvest care of floral crops—including guidelines for retailers on how to process cut flowers and plants.

But in the end you need to adapt the advice of experts to your own shop situation, write your own guidelines, and take a hard look at the factors that sometimes interfere with getting the job done right. Here's a review of what needs to get done.

1. Keep it clean. Strictly speaking, this isn't a step in processing—it should be part of your daily shop procedures to keep the bacteria count down everywhere in your shop, especially work areas, by cleaning with a horticulture detergent, ideally one specifically made for use by floral professionals (see last month's Handle with Care column). Buckets should be cleaned when they are emptied so they're ready for the next use. Cutting tools and workbenches should be sanitized at least twice a day. And, of course, your cooler should be cleaned with a disinfectant at least weekly (more on that in next month's column).

"Keep in mind that the reason for cleaning is not just to keep things looking nice," says W. Kurt Schroeder AIFD, AAF, PFCI, of WKS Associates in Deptford, New Jersey, a floral-industry consultant and an expert on postharvest care. "It's because the stems of flowers can easily get clogged with bacteria and debris. It's all about keeping the plumbing free-flowing in the flower. Your bucket should be as clean as a drinking glass. If you wouldn't drink out of it, don't ask your flowers to."

2. Move flowers immediately into the cooler. Have you ever been guilty of this scenario? Flowers arrive at the shop at 8:00 a.m. You stack the boxes in the processing area or garage, thinking that you're going to process all the flowers at once. But the phone rings, there are other distractions, and by the time you're done, it's already noon—so at least some of your flowers have been sitting out at room temperature for four hours.

"People think the first step in processing flowers is to unpack and cut them. It's not," says Kurt. "The first step is to place them in the cooler immediately. Even if you're going to start processing right away, put the flowers in the cooler and bring them out a box at a time." (Naturally, chill-sensitive flowers like tropicals should be separated from the others right away.)

What if your flowers arrive already in buckets or Proconas? Unless you're sure they have been recently recut, are in the right kind of solution for your purposes, and have been kept cool during shipping, you'll want to process these flowers again. And yes, you should put them in the cooler first, then pull out one bucket at a time for processing.

The point is, until flowers have been recut and rehydrated, keeping the cold chain intact is more important than anything else.

What about checking the shipping temperature of your flowers? Some checklists suggest that you do this before unpacking them or placing them in the cooler. Dry boxes can be checked by thrusting a needle probe into the box in several locations, aiming especially for places where the flower stems will be thickly clustered inside the box. The short-term benefit of this practice is that you find out right away which flowers should be rejected or monitored. For example, if flowers that should normally be stored and shipped at 34-36 degrees Fahrenheit arrive in a box with internal temperatures of 65 degrees, you know those flowers should be sent back immediately to the supplier. At 45 degrees, you might inspect those flowers with special care

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and keep an eye on their performance. Over the long term, checking the temperature of your shipments can tell you a lot about which suppliers you want to keep doing business with. It would be important not only to take temperature readings but also to record them.

Despite the benefits, many, if not most retailers skip this step. Taking temperature readings is a good idea if it can be done promptly and quickly. But the priority is to get flowers quickly into the cooler.

When you start pulling flowers from the cooler, prioritize processing based on the fragility of the flower: start with flowers like gerberas, finish up with hardy foliage.

3. Unpack the flowers. It goes without saying that before you start unpacking boxes you should have clean buckets ready with solution. To save time, process flowers in bunches rather than one stem at a time.

Remove all packing materials: sleeves, rubber bands, and twist ties. "You want the flower to not be constricted, so it has room to expand as it's taking up solution," says Kurt. Another reason is that when flowers are packed too closely together in a wet environment, whether because of packaging or because too many are jammed into a single bucket, that environment is conducive to the growth of botrytis (gray mold). Some florists leave the sleeves on bunches of tulips and the cardboard on bunches of roses temporarily, to help these flowers stand upright while the stems refill with water. Then they remove the sleeves or cardboard as soon as the flowers are hydrated. In general, however, it's worthwhile doing a thorough job of removing all the traces of packaging right away, so your flowers are retail-ready for design or sale.

4. Remove foliage that will be below the level of solution in the bucket with a sharp, clean knife. At this stage, ideally, you would also rinse the lower stems in mild bleach or other disinfectant solution. This step is especially valuable with field flowers that are likely to carry dirt and debris—and, of course, bacteria.

5. Recut the stems—at least an inch, to remove cells from the bottom of the vascular

bundle that are clogged with debris, bacteria, or air bubbles. Research has shown that cutting stems underwater, in an underwater flower cutter, is beneficial as long as the solution in the cutter is kept clean. If you're not prepared to change the solution frequently, use a clean, sharp knife or bunch cutter and make sure the cut ends are immediately plunged into solution. For heavy stems, pruning shears can also do the job. When shears are dull, they tend to crush rather than cut, which is why knives are preferred for most kinds of stems. But the most important thing is that your cutting tool, whatever it is, is clean and sharp.

Does it matter whether you cut stems straight or at an angle? No, says Kurt, not for processing. "People used to believe that if you cut at an angle, you would expose more cell surface for uptake of solution. Or that if you cut straight across, the stem would hit the bottom of the vase or bucket and be closed off. Those are both fallacies." Within the stem's vascular bundle, just as many cells are exposed to solution whether it is cut straight or at an angle. And you would have to weight the straight-cut stem down against the floor of a bucket with bricks to cut it off. Note that cutting at an angle can be advantageous at a later stage, when you are preparing a flower stem for design. Then the angle cut allows the stem to slide more easily into foam, or even into a bundle of interlaced stems.

6. Place flowers into solution. What solution you use depends on whether you use an instant or long-term hydration solution and whether you want to hold the flowers or use them right away. (See last month's Handle with Care for more on these options.) The standard advice is to let the flowers drink for an hour or so at room temperature before placing them in the cooler. That's not necessarily the case, says Kurt: "You need to make a decision. Do you want those flowers to mature and open up, or do you want to keep them from maturing? If the latter, put them in the cooler right away. They will hydrate overnight in the cooler just as efficiently as they would in an hour at room temperature. But you will extend their vase life by keeping them cool rather than letting them warm up."

If you want to use them in a casket spray later that day, leave them out so they'll open up a little bit." When lilies arrive very tightly closed, that is another case when you may want to leave them out of the cooler at least until they start to crack.

Kurt notes that flower processing for wholesalers, supermarkets, and bouquet operations is often done inside a large cooler. Recut flowers are placed in prechilled solution. Hydration is not impeded by the low temperatures, just slowed down—like every other aspect of the flowers' metabolism, which is precisely what extends their market life.

7. Inspect flowers and check the shipment against the purchase order. Most florists do this as they process. Of course you need to make sure that what you ordered is what you received, and that what you received is what you're being charged for. From a care-and-handling point of view, what's important is that you identify and isolate any flowers that look diseased or as though they have not received proper postharvest care. Also, make sure that taking inventory doesn't slow down your processing or cause mechanical damage (as you riffle through bunches of flowers in a box, for example).

8. Mark flowers for rotation. Different florists use a variety of systems to make sure that once flowers are processed, they are sold by a certain date, and that older flowers are sold first. The familiar term used by experts in inventory control is FIFO: first in, first out. "You want to rotate your inventory and move it out based on when it came in, so you're not doing LIFO," says Kurt (last in, first out). "In every other perishables industry, some kind of date-coding is implemented, sometimes with two kinds of dates: a born date and an expiration date, like on a milk carton."

What many florists use is a date-coding system that's easy for the florist to see, but not for the customer. "For example, if a flower comes in and is processed on Thursday, a flower like a rose that is assigned a four-day in-store shelf life, then that flower needs to get thrown out if it's not sold by the end of the following Monday," says Kurt.

"That flower gets placed in a bucket that's marked with a red stick. The shop staff knows that red is the color for Monday, and that they need to sell and use Monday flowers before Tuesday flowers."

Very few florists do this, Kurt believes, but it's an important strategy, for the same reason that care and handling in general is important: "That rose might look perfect in your cooler, because it's in suspended animation at 35 degrees, but if it's already been there for some time, and you take it out and put it in a vase, it might collapse in several hours. You won't know that until, and unless, your customer complains."

9. Maintain a quality log. Customer satisfaction is the main benefit of good care and handling practices, but reducing shrinkage is another, and you won't know how well you're doing unless you have a system to help you keep track. This is important from an accounting point of view as well. "Your largest expense in running a flower shop is usually your fresh-flower inventory," reminds Kurt. "You want to know where your money is going. There are only four places a flower can go: it can be sold, it can be given away (overstuffing arrangements), it can be thrown away, or it can be pilfered by an employee. The system can be simple: Keep a scrap list. If a designer throws out three roses, have them jot it down."

Then, Kurt suggests, take an inventory of your perishables, not just once a year, but once a month. Translate it into dollars and do the math: You know the dollar value of what you started with at the beginning of each month and what you purchased during the month. You also know what you sold and your reported scrap. The first, minus the second, should equal what you have at the end of the month. This gives you a measure of control over monthly perishable COGS (cost of goods sold), including how much has been lost to shrinkage. "If you don't measure it, you can't judge it, and you can't change it," says Kurt. It may sound like a lot of work—but it's an important step toward higher profits.

Next month: Handle with Care reports on how to get the most out of your floral refrigerator. 🌸