

# CARE & Handling

## SPRING AHEAD WITH SPRING FLOWERS

By **John M. Dole, Ph.D.**  
Professor of Horticultural Science  
North Carolina State University

Presented by **American Floral Endowment (AFE)**

### CARE AND HANDLING TIPS FOR THE FIVE MOST-PRODUCED SEASONAL BLOOMS

Spring brings an explosion of floral possibilities. A recent study by *North Carolina State University*, in Raleigh, N.C., listed more than 130 types of cut flowers being grown at cut flower farms in the United States and Canada, ranging from *Agrostemma* to *Zinnia*. Which ones are the most commonly grown and most available to retailers? The top five domestic spring cut flowers are peonies, *Ammi* (false Queen Anne's lace, bishop's weed), larkspurs, tulips and stocks. On the following two pages is a quick refresher on how to select and handle these flower types.

One common feature of spring flowers is that they tend to be cold tolerant and can continue to open even at low temperatures. If you intend to hold them for a while longer after receipt, store them as close to 33 F as possible, to prevent them from opening. Most flower coolers in retail flower shops are held warmer and, therefore, spring cuts, especially peonies and tulips, might open in the cooler and will not last as long as when stored at 33 F.

*Tulipa 'Debutante'*  
Triumph Group

## PEONY

(*Paeonia* hybrids)



Peonies are among the premier cut flowers—lush, lovely and often fragrant. While worldwide production of peonies has greatly increased their availability period, spring is when they are the most abundant and when the most varieties are available.

Select stems with soft buds that are showing color but not yet open. Various cultivars open at different rates; experience will inform you which ones open the fastest. For example, 'Coral Charm' opens fast, and the popular 'Sarah Bernhardt' opens slower. Contrary to popular opinion, ants are not required to get the flowers open.

Peonies have naturally short to medium vase lives—four to nine days—so be sure to handle them properly to maximize the vase life. Upon receipt, inspect the flowers, and if you intend to hold them, cool the flowers as soon as possible. For immediate use, recut the stem ends and hydrate the flowers in a commercial hydration solution. If you need them to open, storing them for a few hours at room temperature might be all that's required because peonies open quickly. These flowers are also moderately sensitive to ethylene gas, so keep them away from fruits and vegetables. Provide packets of flower food with every sale and delivery.

## FALSE QUEEN ANNE'S LACE BISHOP'S WEED

(*Ammi majus*, *Ammi visnaga*)



This white lacy flower is known by many names including false Queen Anne's lace and bishop's weed. The similar looking *Daucus carota* (Queen Anne's lace, wild carrot) is appropriately named because it truly is the precursor to our tasty cultivated carrots. *Ammi* has smooth stems and lacks the tiny purple florets in the centers of *Daucus* inflorescences.

Select *Ammi* flowers that have at least one-third of the florets open. Upon receipt, if they're not already in water, recut the stem ends and place them into a commercial hydration solution. *Ammi* has a medium to long vase life—seven to 13 days—and is sensitive to ethylene gas, so keep it away from fruits and vegetables.

## LARKSPUR

(*Delphinium* and *Consolida* hybrids)



These long-stemmed beauties add grace and height to designs. Oh, and *Delphinium* flowers provide some of the bluest natural blues available. Select stems that have at least a couple of florets open but that are no more than one-third open. Vase life can vary from a short four days to a long 12 days, but properly treated stems should last at least seven days. Flower nutrient solution containing sugar will

improve the opening of these flowers because it provides food for the developing buds. These flowers are very sensitive to ethylene gas, which causes rapid loss of all the florets on the spike. Check with your supplier(s) to ensure that the stems they sell are treated with an ethylene inhibitor, such as a 1-MCP or STS product, at the grower level, to protect them from the effects of ethylene.

## TULIP

(*Tulipa* hybrids)



These classic spring flowers come in just about every color or color combination one could ever want—except blue. Alas, their vase life is typically a short three to six days, so proper handling is critical to getting the longest possible vase life.

Purchase tulips when the flowers' color is just becoming visible. If you can get stems with the bulbs attached, keep them intact because the flowers will store longer and be of higher quality. On removal from storage, recut the stem ends and hydrate the flowers in a commercial

hydration solution—bulb-flower-specific, if possible. Store tulips upright to prevent stem curving. Do not place tulips in containers with daffodils (*Narcissus*) that have been just recut because mucilage exuded from daffodil stems can reduce the vase life of tulips.

Tulip flower stems (scapes) typically continue to elongate after harvest and often "grow out" of arrangements. This stem elongation can be reduced by using a bulb-specific flower nutrient solution, like FloraLife® Bulb Food Clear 300.

## STOCK, GILLYFLOWER

Stocks are well known for their sweet and spicy fragrance and broad range of colors. These flowers come in two forms—large, fully double flowers and smaller single flowers. No cultivars produce only double-flowered stems. While some white and pale yellow varieties produce up to 90 percent double stems, only 50 percent to 60 percent of the stems of most varieties will be double. While most of us prefer the colorful doubles, do not ignore the singles because they are great for tucking bits of color and fragrance into bouquets and arrangements.

Select stems with at least six open florets because they generally perform better

than those with fewer open florets. Stock has a medium length vase of five to eight days. As with baby's-breath and marguerite daisies, bucket and vase solutions can develop an unpleasant smell if the correct amount and type of flower food solution is not used and if buckets are not properly sanitized.

Some stock varieties are ethylene sensitive, which can cause "water soaking" of the petals, accelerated senescence (aging) of the florets and epinasty (downward curvature) of the leaves. However, newer cultivars do not appear to be ethylene sensitive. Check with your supplier(s) to ensure that the ethylene-sensitive varieties

(*Matthiola incana*)



they sell are treated with an ethylene inhibitor, such as a 1-MCP or STS product, at the grower level. Upon arrival in your store, recut the stem ends and hydrate the flowers in a commercial hydration solution.

After hydration, place the stems into a flower nutrient solution containing sugar because it will extend vase life, improve opening of the upper florets on the spikes, and improve color development of the upper florets. Stocks are one of the few flowers that last longer in floral foam than in water.

### Interested in learning more?

Check out AFE-funded research projects on post-production handling at [endowment.org/afe-research-reports-post-production-series-400](https://endowment.org/afe-research-reports-post-production-series-400), which include reports on stocks and a host of other spring cut flowers.

And it is always good to remind yourself and your staff of the basics of cut flower handling, regardless of

the season. Request a free AFE cut flower care poster to display in your workroom at [endowment.org/new-poster-gives-tips-for-flower-care](https://endowment.org/new-poster-gives-tips-for-flower-care).

To find cut flower growers in your area, check out the Association of Specialty Cut Flower Growers' "Local Flowers" resource at [localflowers.org/find-flowers](https://localflowers.org/find-flowers).

