## **Preparing Flowers for Exhibition**

## CAROL ADELMAN, APS DIRECTOR — SALEM, OREGON

Flowers must be cut in bud stage, if they are to be stored and transported long distances for an exhibition. The general rule is to cut at "marshmallow stage," which means that when squeezed, they feel about the same as when squeezing a large marshmallow. The bud should not feel like it has a rock inside, but feel pliable clear to the center. Another good indicator is when one petal is beginning to move away from the bud. Single blooms need to be cut at a tighter stage than a full, double bloom because it takes less time and heat for the single bloom to open. Varieties are quite variable as to bud maturity related to reliable opening after storage. The largest buds with the largest stems will make the largest blooms.

All containers should be clean and bleached. Remove all leaves that will be below water level. Add a flower conditioner to the water. To store wet, put in water immediately when cut. Keep in a cool place away from light. Store in a moist atmosphere as close to 33°F as possible. Do not store with fruits and vegetables as they emit ethylene gas that hastens flower development.

Dry storage can also be used. Layer the blossoms on paper in a cool place as noted above or place dry in 2-gallon Ziploc<sup>™</sup> bags. Transport can be in food coolers with paper to cushion the buds and possibly ice in Ziploc<sup>™</sup> bags. When ready to condition, cut the stems under water and place in water containing flower food.

We line the transport boxes with a thin foam packing material and place frozen gel or ice packs on the stems to keep the flowers cool. The flowers and ice packs should be fastened in place so they don't jiggle and bounce, damaging the petals. We staple or nail a stick tight against the stems. If the weather is warm and you are transporting by car, keep the flowers in the airconditioned car—don't place them in the trunk. We have shipped as checked luggage, FedEx® or UPS<sup>TM</sup> overnight service.

Preparation for display depends upon the stage of development and timing until display time. Re-cut the stems underwater and place them in water containing flower conditioner. If their development is advanced, keep them in an air-conditioned room with minimal light. If the buds are still tight, place them in warm water in warm conditions. Consider the amount of time until judging.

For the APS Exhibition each flower needs to have a tag with the cultivar name and exhibitor affixed to the stem. Entry tags are provided by APS. Stems should be a minimum of 12-inches for the exhibition, with exceptions noted in APS Exhibition Rules.

## **Storing Peony Flowers for Later Use**

## DON HOLLINGSWORTH, APS DIRECTOR — MARYVILLE, MISSOURI

Peony flower buds can be stored dry, packaged in plastic and laid flat on the shelves of a household refrigerator. One may be surprised at how many buds can be so stored on one shelf. Stored in water is good, too, but requires a lot more room. Most kinds can be held for two or three weeks, some up to twice as long and still give a good vase life. Almost all cut peonies will hold a few days; some kinds are better, whether used immediately or out of storage.

The cold serves to slow development of the flower. The longest storage life is obtained with quick cooling and storage temperature of 32°F degrees Fahrenheit. However, a refrigerator is more like 36-40°F. At the higher temperature, storage life is somewhat reduced. With experience (or luck) this may be partly compensated for by cutting at a tighter bud stage.

For shorter-term storage, also with the more doubled flowers, the guideline is to cut when the flowers are in the "soft" bud stage. Hold the stem between two fingers under the bud and press with thumb on top. If the center of the bud feels about like a fresh marshmallow, it is at soft bud. For the many-petalled, full double flowers, part of the petals will be unfurled.

Single, Japanese and Anemone type flowers open more easily and should be cut firmer than the soft bud. We have cut ROSELETTE when the buds were about to show a line of color, but fairly hard, at the end of April. Four weeks later they were good for Memorial Day. With the Bombs, the general rule is to cut when the bud covers are loosening and an edge of the true color showing. Try it. Success improves with experience.

When cut softer, any peony opens sooner; if harder it develops more slowly. The one extreme is that they can be cut so hard that they never open. The other is that they can be cut so advanced they expend their vase life potential while still in storage.

For packaging, we put the cut stems in thin plastic bags, closed tightly against drying. In a pinch we use grocery plastics and tape the holes. Dr. Karen Gast, Kansas State University cutflower peony research and demonstration project, uses the 2-gallon size Ziploc<sup>™</sup> bags or equivalent. Frost-free refrigerators can be harsh, so be sure the stems are packaged against extreme moisture loss.

Remove almost all of the leaves from stems to be stored—stems that are intended for floral decoration and those to be held for competitive exhibition. This cuts down on bulk and greatly reduces the surface area giving off moisture in the bags.

What remains is how to handle the flowers upon taking them out of storage. They will be wilted and the cut ends will have dried. Re-cut the ends to fresh tissue and place in tepid water in a cool room, out of drafts, for them to take up water and to open. A floral preservative with sugar is recommended.

AMERICAN PEONY SOCIETY 2007