

STORING PEONY FLOWERS FOR LATER USE

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Peony flowers have been long known for retaining their suitability for floral decoration after several weeks in cold storage. Prior to the technical advancements in refrigeration and transportation following World War II, peonies were a major item in the florist trade. They were shipped in iced boxcars by rail into the big eastern markets. This same durability can be used to advantage at home.

Ready-to-open peony buds can be packaged dry in plastic, until brought out for use, and stored flat on the shelves of a household refrigerator. One may be surprised at how many buds can be so stored on one shelf. When cut at the most favorable stage of development, some kinds can be held for three weeks or more and still have a good vase life.

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

The stage at which to cut is somewhat guided by science, but in practice it is a skill that can be expected to improve with experience. For shorter period storage and with the more doubled flowers the "rule of thumb" is to take the flowers when in the soft bud stage. This means that when squeezed between thumb and fingers the center of the bud feels about like a fresh marshmallow. For the many-petalled, full double flowers, part of the petals will be unfurled.

The more single flower types, especially those of the exhibition classes Single, Japanese and Anemone, which open more easily, ought to be somewhat more firm than the fresh marshmallow test. The outer petals, which in these sorts are a prominent part of the opened flower form, having continued to expand in the restriction of the package may be thus distorted in shape.

The Bomb form flower, which is similar in anatomy to the singles but with much larger center petals, and the Semi-Doubles, which have looser petalage than the full doubles, also open more easily. For the florist trade channels, growers will cut buds comparatively hard. The general rule there is to cut when the bud covers are loosened and the true color of the petals is showing. Again, more double sorts must be more opened.

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 soft that they expend their vase life potential while yet in storage and the petals fall when taken out or too soon thereafter. A useful precaution is to cut half again or twice as many buds as you think you will need to allow for losses.

For packaging, we put the cut stems in salvaged newspaper plastic bags—Sunday edition bags preferred—and tie them tightly. In a pinch we use grocery plastics. The plastic is breathable—allows exchange of oxygen and carbon dioxide. Karen Gast, PhD., Extension Horticulturist at Kansas State University, who has the cutflower peony research and demonstration project there, uses the 2-gallon size *Ziplock* bags or equal. A key consideration is that you want 100% humidity around the buds/stems so that humidity loss is minimized. Frost-free refrigerators can be harsh, unless the stems are packaged adequately. Using the salvaged bags requires taping abrasion holes, for example.

The length to cut stems depends on what you expect to need. Don't take too much foliage off the plant. The fact is that every leaf removed represents a loss of growth capacity. Therefore, when one needs long stems, only a few can be taken from a plant while still protecting the ability of the plant to produce and store food necessary for performance next year. The "long necked" peony varieties allow more flexibility in cutting pressure than do the sorts which have flowers closer to the bush (but which are more favored for flowering in the landscape). We take 14-18 inches for exhibition flowers and shorter for many other uses.

Remove almost all of the leaves of stems to be stored, both those stems to be used in floral decoration and those to be held for competitive exhibition. This reduces bulk in the storage space and greatly reduces the surface area which is giving off moisture in the bags.

Humidity will condense on the insides of the bags. After the leaves have been stripped and the stem lengths adjusted, we arrange the buds in a bundle which will fit in the plastic bag, taking care that all unfurled petals are kept up-facing, and roll the bundle in one layer of newsprint. The paper keeps the buds from lying against the moist plastic.

Fungus spots on your buds may be botrytis—it will continue to develop in the cold humid conditions of storage. The dramatic spoilage will sharpen perceptions for the future!

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 luke-warm water in a cool room, out of drafts, to take up water again. Vase-life extenders may be added to the water. For exhibitions, there may be no practical benefit from additives. We place the stems to take up water and to finish opening at least 12 hours before we want to set them up for viewing. Tighter buds will need additional time.

Peony flowers which are to be used soon after cutting will have the best vase life if cut before they are fully open. Condition the flowers in a cool room, out of drafts, in deep water for a conditioning period, before arranging them, for best vase life.