

# Present Methods of Flower Storage are Obsolete

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In the era of hoop skirts and horse and buggies, in the '90's when floriculture was almost a million dollar business rather than the billion dollar industry of today, we find the basis for our present discussion of the "modern" methods of cut flower storage. It was then, in the embryonic stages of floriculture's growth, that the methods and practices of present day cut flower storage and handling were first suggested. A half century later these methods remain with us.

Probably you recall when a cool cellar under the flower shop or greenhouse served for flower storage. In fact, some grower, wholesale, and retail establishments still utilize this type of storage. The more fortunate florist, before the advent of commercial refrigeration, might have had facilities for supplementary ice cooling. At best, ice block cooling was the only means of refrigeration available in florists' display cases. Inconveniences and uncertainties naturally accompanied these conditions, but the careful florist was reasonably sure of maintaining a 50 degree temperature in his storage unit throughout the year. The particularly energetic fellow, if favored by nature and location, might even have held temperatures of 45 degrees or lower in his flower storage during a greater part of the year.

The old time pattern of storage was to clean and cut the flowers, place them in a can of water, transfer them to the cooler, and then hope for favorable weather or a busy day so that the flowers might reach the consumer in reasonably good condition.

## Changes Obvious

There have been startling changes and marked advances in the entire industry since those days. Scientific progress in crop production, breeding of florists' crops, and better transportation from remote areas have immensely increased the quality, quantity and selection of flowers available to the trade. Many elements of our refrigeration and storage practices have also changed. Cold cellars have, in all progressive places, given way to electrically operated and well insulated refrigeration boxes. The use of ice blocks for refrigeration is as obsolete in our business as it is in home refrigeration. Outwardly, and undoubtedly from the considerations of convenience and efficiency, we have made advances from the storage practices of the past.

But even with these innovations there is still a familiar ring of fifty years ago in our "modern" methods of today. Many direct and obvious carryovers from ancient storage methods still are apparent in the operation of our new equipment. Refrigeration boxes

with insulation, compression and thermostatic units capable of maintaining constant temperature control in any desired range are still carried at 40 to 50 degrees. Display cases in the retail flower shop very generally, and especially in hot weather, exceed even the 50 degree temperature. It is the exceptional storage refrigerator that is operated below 40 degrees. New equipment has saved us labor and brought us convenience, but old methods and practices have remained. We have not achieved the maximum efficiencies from our new investments.

The pattern of storage still is to cut and clean the flowers, put them in a can of water, transfer them to the cooler, and wait for a busy day. Fifty years have brought conveniences but few real changes.

## Allied Industries Have Made Storage Progress

In this respect, floriculture lags sadly behind other phases of agriculture. In recent years the storage problems of the apple growers have been exhaustively investigated. The result -- apples are no longer a seasonable commodity, but can be purchased in the markets every month of the year. Study has shown that factors of temperature and humidity control and air purification are especially important in making this possible. Vegetable growers, too, can successfully store many of their root crops in a fresh condition. And today, because of recently developed techniques in quick freezing, they can supply consumers with the most perishable truck crops in a garden-fresh condition at any time of the year. Efficiencies of operation and production have brought these products within the purchasing range of everyone. The florists alone, of all people in horticulture, have, since the beginning of their industry, made no significant changes in methods of storing their products.

## Long-time Storage of Flowers Necessary

Keeping up with agriculture as a whole is not our prime consideration. We should look for new methods to raise our efficiency of operation and to increase the quantity and quality of flowers moved to the public.

The retail florist business, the ultimate source of our income, is largely seasonal. Prices rise at holidays because we cannot supply the great demand, even with our facilities and knowledge of production. These high holiday prices have discouraged customers from home consumption buying with the result that between-holidays our business is now largely limited to funeral flowers. Because of the maladjustments in the industry, the grower must get high prices at holidays to average a

continued on page 8

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continued from page 5

profit for the year. Between these periods the price is often below production cost.

The grower peaks his production for the seasonal demand by using all the knowledge he can gather for timing his crops. Sometimes he misses because the sun was brighter than he expected or because it did not shine as he had planned. Roses are pinched to time the crop for a holiday. Nearly 25 per cent of the rose production is discarded as pinches. Miscellaneous cut flowers and potted plants are held back or forced excessively to supply this demand. We are not using production facilities to the best advantage because we must lose time in timing our crop. Poor quality always results when plants are forced at too high temperatures or when they flower before they are in demand and so must be held for the holiday.

We never know if we can supply an order in advance. The wholesaler may receive 1,000 bunches of carnations today when he needs 100. The market is glutted. Tomorrow many of the leftovers may be junk. The grower has no means of holding them in a good condition, and neither does the wholesaler. Perhaps next week the wholesaler could use them. The industry is at the mercy of two great unpredictables -- the weather and widely fluctuating business conditions.

It is obvious that success in long term storage could remedy these maladjustments.

Labor and World Conditions Demand  
Long Term Storage

In the past we could cut the flower and ship it for the occasion regardless of the day of the week or month. Retail, grower and wholesale establishments were open every day of the week. Changes to the 40-hour week, time and a half for overtime, and no Sunday opening are slowly working into the industry. Express delivery regulations, workers' week-ends off, and now wholesale houses closing Saturday and Sunday will result in one of two things. Either much of our produce will have to be discarded, or production will have to be successfully stored under controlled conditions.

The present world problems which are certain to bear heavily on the conditions of every "non essential" business may soon force us to employ every efficiency at hand. Flower supplies will probably become shorter, and reliance on outdoor production greater. All of the difficulties of variable supply may well be magnified. Long term storage should help to facilitate maximum efficiencies in the use of available equipment and flower supplies.

During the past two years we have been applying the knowledge of plant reactions to storage problems. Several difficulties present themselves with long time storage of cut flowers and potted plants. We have solutions to most of these problems. The results will be published in future articles.

We are certain that the results of these experiments will form the basis for successful long time storage and will result in a product for the consumer which is far superior to the standard of present supply. Full knowledge and application of this work must be in the hands of all branches of the trade to accomplish the maximum result.