Postharvest Physiology of Cut Flowers

Considerable progress has been made toward determining the mechanism controlling the termination of the life of cut flowers. We found that a great increase in ethylene production occurs within flowers one to two days before death. Chemicals which delay this increase in ethylene production progressively extend the life of cut flowers. However, no chemical has been found which prevents the increased ethylene level.

Storage of cut flowers which combines 32°F with low atmospheric pressure permits carnation storage of from six to ten weeks, and also provides good flower longevity after cold storage. Carnations stored ten weeks at 32°F and 1/12 normal atmospheric pressure showed a longer flower life after storage than did freshly cut flowers of the same variety. Carnations stored under low pressure conditions produce ethylene at a reduced rate after storage, which prolongs the life of the cut flowers.

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