

Abstract:

In order for shipping and handling techniques of cut flowers to make a real difference, a significant increase in quality or vase life must be achieved. If research results are to be accepted by the industry, only those procedures or practices that result in at least a 2-3 day increase or more in vase life or significant improvements in quality should be recommended to the industry. Often products or equipment are developed and marketed without a clear value to the vase life or quality of flowers. As an example, we tested vacuum cooling on the vase life of several cut bulb species. The flowers were commercially precooled or vacuumed cooled and then shipped overnight to the University of Florida to simulate the new market trend of sending flowers overnight directly to consumers. Temperature decreased more rapidly when vacuum cooled and temperatures remained lower during most of the transit time in vacuum cooled boxes compared to precooled boxes but only a 1-day increase in longevity was found in one variety of lilies and tulips. No differences in vase life between the cooling methods were found in hyacinth, freesia or iris. In this case, the minor difference in vase life did not demonstrate a substantial benefit in vacuum cooling over precooling cut flowers.