Title Bleach and sucrose as a holding solution to prolong vase life of several cut flowers

Author Chian-Shinn Sheu and Yann-Ray Chen

Citation Abstracts of 27th International Horticultural Congress & Exhibition (IHC 2006), August 13-19, 2006, COEX (Convention & Exhibition), Seoul, Korea. 494 pages.

Keywords vase solution; postharvest; cut flower; sodium hypochloride

Abstract

The objective of this work was to develop a holding solution for consumers to prolong vase life of cut flowers by using bleach (120 ppm NaOCl) as bactericide and adding 2% sucrose as a carbohydrate source. Transpiration of cut chrysanthemum was inhibited in the 1st week when there was no bleach in the holding solution. Xylem blockage by microorganism on the stem base could be the primary cause of reduced water absorption. Lower leaves on the stem turned yellow gradually during 7 days in distilled water. Adding 2% sucrose inhibited senescence. Flower diameter of *Dendranthema, Helianthus* and *Antirrhinum* in a solution with both bleach and sucrose was larger than those in the control or in solutions using either additive alone. A test of diluted bleach in a series of different concentrations was conducted. Leaves were injured in high concentration of bleach. Two percent sucrose with diluted bleach (120 ppm NaOCl) was recommended as a holding solution for cut flowers.