

Abstract

Fresh floral preservatives are chemicals added to water to make flowers last longer. They contain a germicide; a food Source, a pH adjuster, water and sometimes surfactants and hormones. Introduced international vase solutions, Ottawa Solution and Standard Vase Solution, commercial floral preservatives, Chrysal clear[®], Flower fresh[®], Flora 2000[®] and Biovin[®], and germicides, 8-HQS and CuSO₄ were tested on keeping quality of cut roses (*Rosa hybrida* L., 'First Red'). Compounds were evaluated for their effects on vase life, maximum weight gain in fresh weight, solution uptake rate, pH, conductivity and redox potential of vase solution during the vase life period. Longer vase life and higher gain in fresh weight of roses were observed with Ottawa Solution than commercial floral 'preservatives and 8-HQS. CuSO₄ was ineffective in gaining fresh weight and increasing vase life. Variation of pH, conductivity and redox potential did not show a specific pattern in this respect. Redox potential values and conductivity values on the rose data indicated that the best were the average values of Ottawa solution during 2-4 days for keeping quality. It gave lower values for both redox potential and conductivity at the end of vase life for the Ottawa solution. Maintenance of pH around 4 showed better keeping quality performances for roses. Increase and maintenance of fresh weight and longer vase life were observed with rose flower stems placed in Ottawa solution, 8-HQS and commercial floral preservatives (Chrysal clear[®], Flora 2000[®], Flower fresh[™]).