

Abstract:

Phlox paniculata L. 'John Fanick', a superior selection for Texas landscapes, bears attractive and long-lasting clusters of flowers which have several colours, dense deep red, pink and white. We investigated its potential as a cut flower. Vase life was limited by shedding of turgid corollas. Inclusion of 2-chloroethylphosphonic acid (CEPA) in the holding solution, which releases ethylene, considerably hastened corolla abscission, reduced opening of new buds and decreased flower size. Sucrose and thidiazuron (TDZ) both reduced corolla abscission and promoted bud opening during vase life. Petal colour of control flowers turned to bluish, but after sucrose treatment petal colour was maintained. Both TDZ and sucrose counteracted several effects of CEPA (and thus of endogenous and exogenous ethylene during shipping and handling), and greatly improved overall postharvest display life and longevity.