Title Use of a nitric oxide donor compound to extend the vase life of cut flowers.

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Citation HortScience Vol: 39 (2004); 1371-1372

Abstract

Snapdragon (*Antirrhinum majus* cv. Chitchat), delphinium (*Delphinium ajacis* [*Consolida ambigua*] cv. Bellisimo), chrysanthemum (*Dendranthema grandiflora* cv. Regan), tulip (*Tulipa hybrid* cv. Golden Brush), gerbera (*Gerbera jamesonii* cv. Manovale), oriental lily (*Lilium asiaticum* cv. Specisiom Simplon), rose (Rosa hybrid cv. Carnavale) and iris (*Iris hollandica* cv. Blue Magic) cut flower stems, obtained from Sydney and New South Wales, Australia, were placed at 20 deg C in water containing the NO donor compound 2,2'-(hydroxynitrosohydrazino)-bisethanamine (DETA/NO) at 10 and 100 mg litre-1 and after 24 h, transferred to humidified air containing 0.1 micro litre litre-1 ethylene. Compared with flowers kept in water, the vase life of all eight flowers was extended by DETA/NO with an average extension of about 60% with the range being about 200% for gerbera to 10% for chrysanthemum. DETA/NO appears to have widespread applicability to cut flowers and offers a simple technology to extend vase life.