

Sugar pulsing of cut Geraldton wax and kangaroo paws

E. M. Carter and D. C. Joyce

Western Australia Department of Agriculture Baron-Hay Court, South Perth W.A. 6151

Supply of exogenous sucrose to exotic cut flowers can result in improved bud opening, brighter flower colour, increased flower size, and longer vase life (1). Therefore, the potential benefits of treating native Australian export flower crops with sucrose warrants investigation. The results of pulsing Geraldton wax (*Chamelaucium uncinatum*) and yellow kangaroo paw (*Anigozanthos pulcherrimus*) with sucrose are described.

Methods

Geraldton wax was harvested with 10% flowers open and kangaroo paw when the first flower was opening. Stems were rehydrated in deionised water for several hours and then recut under water before being placed into pulsing solutions varying in their sucrose concentration (for 16 hours, at 20°C, in the light). Replication was tenfold; viz, single stems, one per vase. Vase life, stem mass and solution uptake were monitored in a vase life room (20°C, 50-60%RH, 12 hour light period).

Results and discussion

Sucrose pulsing of Geraldton wax reduced vase life due to foliage injury, particularly at sucrose concentrations above 5%. Weight loss over time for pulsed stems was similar to the rate for unpulsed stems. Water uptake was reduced by pulsing (Fig. 1). Pulsing with sucrose alone was not beneficial for Geraldton wax. In contrast, yellow kangaroo paws were not damaged by pulsing with sucrose concentrations as high as 40%. Water use over time was reduced by pulsing at high sucrose concentrations; viz. 40%, however pulsing reduced the rate of weight loss (Fig. 2) and doubled the vase life of yellow kangaroo paws and is thus a potentially useful treatment for maintaining quality.

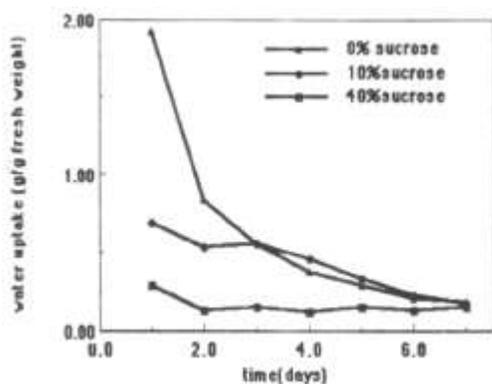


Fig 1. Water uptake of Geraldton wax

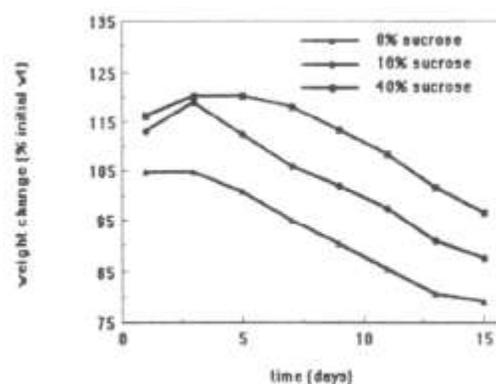


Fig 2. Change In weight of kangaroo paws over vase life.

1. Halevy, AH and Mayak, S (1981), Hort. Rev., 3: 59-143