Abstract:

Bird-of-paradise flowers were harvested at the commercial stage and stored at 10 °C for 7, 14, 21 and 28 days. The flowers were recut at 2 cm from the stalk base and pulsed with 40% sucrose for 24 hours before or after cold storage, while control stalks were treated with distilled water. Long-term storage reduced the flower vase life for all treatments, with a smaller decrease for those flowers pulsed with sucrose immediately after cold storage. A pulsing treatment following storage for 7 and 14 days improved flower vase life by increasing the number of open florets. Storage for 28 days at 10 °C induced chilling injury symptoms in the bracts and sepals, and allowed development of Penicillium sp. in the petals. The best extension of post-storage longevity occurred after storing flowers up to 14 days at 10 °C, followed by pulsing treatment with 40% sucrose for 24 hours.