

Title Postharvest browning symptoms on cut *Backhousia myrtifolia* stems
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Abstract

Backhousia myrtifolia is a native Australian plant recently introduced into cultivation for cut-flower production. Harvested stems bear clusters of small flowers (10-15 mm diameter) with white to lime-green sepals. Stem quality became a contentious issue for growers and exporters in 2004 Extensive flower and leaf browning occurred in consignments air-freighted from Australia to Japan and resulted in a lasting loss of confidence in *B. myrtifolia* within the marketplace. Flower and leaf browning were also observed that same season during product handling in grower's packing sheds, including following short-term storage. Descriptions by industry members of browning symptoms observed in the 2004-2006 flowering seasons have been variable. Reports as to the incidence, severity and nature of browning within individual seasons have also been variable. For effective research of post-harvest disorders, clear definitions of symptoms are important. Several symptoms similar to those described by industry were reproduced under controlled conditions in storage experiments. Those on flowers included sepal vein browning, sepal base browning and browning of the entire flower. Leaf browning was usually confined to diffuse light brown-coloured lesions (1-10 mm diameter) randomly distributed across mature leaf blades. Browning of mature leaves sometimes appeared as a reddish-black V-shaped lesion narrowing towards the midrib near the leaf tip. Conversely, a diffuse reddish-black discolouration occasionally developed near the tip of mature leaves. Similar discolouration also covered entire immature leaves. Subjective rating systems defined in the course of this study can be applied as unambiguous descriptors of *B. myrtifolia* browning.