Title Postharvest physiology and technology of potted Ficus for export

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Abstract

This experiment studied postharvest physiology and technology of Potted *Ficus microcarpa* L.f., including effects of different media, storage and transportation conditions in export system on the physiology to understand defoliation mechanism and effects of different postharvest handling on postharvest quality, and develop effective methods in controlling defoliation. The results showed that the mutuality coefficient between the defoliation rate and cytoplasm membrane permeability, POD and CAT activity, and contents of chlorophyll, MDA, soluble sugar and protein in leaves are all upward of 0.7. The best postharvest system technology for exported potted ficus in this experiment was that selecting suitable medium compound (79% coconut chaff + 20% perlite + 1% water retention agent), irrigating root system with liquid GROW MORE K diluted at 100 times, spraying the foliage with 800ug/L 0.004% brassinolides, and storing and transporting the potted ficus at 10 °C, which could decrease membrane permeability and malondialdehyde content of leaves, postpone the degradation of penetrative adjustive substance in leaf and the decreases of chlorophyll content and poly-phenols aegis enzyme activity of leaves, improve anti-stress capability during storage and transportation, delay ficus decrepitude and decrease the defoliation rate after 36 days' simulative storage and transportation. The temperature domestication before and after storage and transportation at 10 °C decreased the defoliation rate of potted ficus.