

**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* Lf., 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 find out 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 compound (79% coconut chaff + 20% perlite + 1% water retention agent) was a better medium compound, which had suitable unit weight, hole size, water-holding capacity, pH, EC, organic matters, fully-effective NPK, quick-effective NPK and slowly-effective K to *Ficus* growth. 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 transporting the potted *Ficus* at 10°C, which could reduce 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 reduce the defoliation rate after 36 days' storage and transportation at 10°C. The temperature domestication before and after storage and transportation at 10°C reduced the defoliation rate of potted *Ficus*.