

Title Sucrose fatty acid coating retards pericarp browning of litchi cv. 'Hong Huay'

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Abstract

Pericarp browning of litchi fruit cv. 'Hong Huay' is a primary postharvest problem. The study determined the efficacy of sucrose fatty acid ester (SFE) coating in inhibiting browning. Fruit were dipped in 0.5-1.5% SFE or water (control) and stored at 5°C with 90-95% RH. Results showed that all SFE treatments retarded pericarp browning based on a subjective rating scale and objective L* and a* values. Optimum treatment appeared to be 1.0% SFE, delaying browning development by about 8 days relative to that of the control. It was most effective in reducing weight loss and maintaining higher water content. The effect was also partly due to the inhibition of polyphenol oxidase (PPO) and phenylalanine ammonia lyase (PAL) activity. All SFE treatments reduced PPO and PAL activity but did not affect total phenolics content.