

Title Postharvest quality of “Yukbo” strawberry (*Fragaria ananassa* Duch.) maintained by nitric oxide (NO)

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Abstract

The potential of NO to influence postharvest quality of “Yukbo” Strawberry (*Fragaria ananassa* Duch.) fruit was evaluated. “Yukbo” Strawberry were exposed to 0, 50, 100, 200 and 500 $\mu\text{L.L}^{-1}$ NO at 15°C in air, then stored at 18°C. Strawberry quality rapidly after storage. Treatment with 200 $\mu\text{L.L}^{-1}$ NO reduced respiration rate and ethylene production. These physiological responses affected fruit quality including firmness, weight loss, and senescent decay. Treated fruit were firmer and had weight loss and senescent decay than controls. Application of 200 $\mu\text{L.L}^{-1}$ NO protected the calyx tissue during storage but fruit treated 500 $\mu\text{L.L}^{-1}$ NO showing significant browning around the calyx. At this higher NO concentration extension in postharvest life was not as great as at lower NO concentration.