

**Title** Limiting the deterioration of mango fruit during storage at room temperature by oxalate treatment

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#### **Abstract**

Effects of oxalate on the incidence of decay and ripening in mango fruit, and its physiological effects on the peel and flesh of mango were investigated after mango fruit (*Mangifera indica* L.) were dipped in different oxalate solutions for 10 min and then stored at 25 °C. Oxalate application decreased the incidence of decay and delayed the ripening process in mango fruit during storage. Potassium oxalate treatment resulted in increased activities of peroxidase (POD) in both the peel and the flesh and polyphenol oxidase (PPO) in the peel, without activation of phenylalanine ammonia-lyase activity, and elevated total phenolic content in the peel. The physiological effects of oxalate in increasing activities of POD and PPO and elevating total phenolic level could be involved in induced resistance of mango fruit against postharvest disease. Oxalate application could be a promising method to suppress postharvest deterioration and extend the useful shelf-life of mangoes.