

**Title** Changes in glycosidase activities in 'Feicheng' peach (*Prunus persica* [L.] Batsch) fruit during development and ripening

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#### **Abstract**

The experiments were carried out for two years with two cultivars of 'Feicheng' peach (*Prunus persica* [L.] Batsch), which have different softening characteristics during maturation and postharvest storage. Of the two cultivars, 'Hongli' is a red fleshed clingstone type which softened faster after harvest than 'Baili'. 'Baili' is a white fleshed cling-stone type which had a longer storage life. Changes of Glycosidases activities in the two cultivars were compared. Activities of  $\alpha$ -galactosidase were very high in 'Feicheng' peach. Alpha-galactosidase, an enzyme that could bind to cell wall ionically, was correlated with decreasing of fruit firmness. Beta-galactosidase occurred in harvested fruit and was related to fruit softening during storage at low temperature. The pattern of glucosidase activity was similar to that of  $\beta$ -galactosidase. No mannosidase activity was detected in 'Feicheng' peach. Peroxidase activity was high during pit hardening and then decreased and this changing indicates peroxidase plays role in pit hardening of 'Feicheng' peach.