

**Title** Study on Relationship Between Longan pulp-autolysis and Caspase-3  
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#### **Abstract**

During the entire cold storage period of the longan fruit 'Shixia', the test result of the Caspase-3 activity showed a tendency of 'rise-smooth-rise': the first enzyme activity rising before the present of pulp-autolysis, while the later raising enhance the autolysis; the enzyme activity of Caspase-3 in the autolytic pulp was evidently higher than that in the unautolytic pulp. Caspase-3 or its analog may take part in the initiation and enhancement of the pulp-autolysis. The enzyme activity of Caspase-3 can be tested in the pulp of the longan fruits just after being picked, some physiological and biochemical responses regulated by this enzyme may be initiated before harvest. There may be some relationship between longan pulp-autolysis and PCD.