

### ‘金煌’芒果胚正常与胚败育果实内源激素的变化

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#### The Change of Endogenous Hormones in ‘Jinhuang’ Mango Fruit with Normal and Aborted Embryo

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**摘要** 研究了‘金煌’芒果果实发育前期内源激素变化与胚胎败育的关系。结果表明：胚胎败育在坐果后30 d完成，20 ~ 30 d为胚发育的关键时期，胚败育果实与胚正常果实大小差异主要缘于果肉的差异。在果实发育初期，败育胚的IAA、ABA含量高于正常胚，GA<sub>3</sub>和ZT含量低于正常胚。胚败育果实的果肉中GA<sub>3</sub>含量低，而ZT含量高于胚正常果实果肉，IAA和ABA的含量在后期也高。胚中高含量的GA<sub>3</sub>、ZT和低含量的ABA有利于胚正常发育。胚中ZT的下降和ABA的持续增加以及(GA<sub>3</sub> + IAA + ZT) / ABA的比值小于其果肉中的比值，是导致胚胎败育的重要因素；在果实发育中，胚胎的败育和胚胎与果肉中(GA<sub>3</sub> + IAA + ZT) / ABA均低是导致胚败育果实小的重要原因。

**关键词：** 芒果 胚胎败育 内源激素

**Abstract:** The relationship between the endogenous hormones and embryo abortion ‘Jinhuang’ mango fruit at early development stage was investigated. The results showed that the fruit embryo abortion was finished within 30 d, indicating 20 - 30 d could be critical period for embryo development. The difference in size between embryo normal and abortion fruit mainly depended on the fruit flesh; The IAA, ABA contents in embryo aborted were higher than those in the seed at the initial stage, but the lower contents of GA<sub>3</sub> and ZT were observed, compared to those in the normal embryo. In contrast to seed fruit, the lower GA<sub>3</sub> contents while higher ZT, IAA and ABA levels were existed in embryo abortion fruit pulp. Moreover, the higher contents of GA<sub>3</sub> and ZT and lower ABA level were favorable to normal embryo development. The decreased ZT, enhanced ABA contents as well as lower (GA<sub>3</sub> + IAA + ZT) / ABA ratio in embryo comparing with those in pulp were important factors leading to embryo abortion. During fruit development, with the embryo aborted, the lower ratio of (GA<sub>3</sub> + IAA + ZT) / ABA in embryo and pulp were the important reasons resulting in small size in seedless fruit.

**Keywords:** mango, embryo abortion, endogenous hormone

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