Title Changes in pigments and plastid ultrastructure during ripening of green-fleshed and yellow-fleshed kiwifruit

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Abstract

Fruit of *Actinidia deliciosa* have green flesh when ripe, whereas fruit of *Actinidia chinensis* often have yellow flesh when ripe. The outer and inner pericarps of *A. deliciosa* fruit retain their chlorophyll during ripening. In those fruit of *A. chinensis* that become yellow on ripening, the colour change is caused by the disappearance of chlorophylls unmasking the yellow carotenoids already present, rather than by increased synthesis of carotenoids. In fruit of *A. deliciosa* and those fruit of *A. chinensis* that remain green, the chloroplasts retain their typical morphology during ripening, whereas in fruit of *A. chinensis* that become yellow during ripening the chloroplasts of the immature green fruit are transformed into fully developed chromoplasts.