**Title** Postharvest factors that influence the effectiveness of modified atmosphere packaging of kiwifruit

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**Abstract**

Harvest maturity of kiwifruit and the time at which fruit were packed into a modified atmosphere bag, were the two factors used to study the effectiveness of MAP (modified atmosphere packaging) technology, using fruit from two orchards. Fruit were harvested at four times, over a range of soluble solids from 5.8% to 9.8%, firmness 76 N to 62.3 N and dry matter 15.9% to 18.4%. Fruit were packed into a modified atmosphere bags after 0, 30 and 60 days of storage at 0ºC and MAP was evaluated after 30 and 60 days at 0ºC plus a ripening period at 20ºC. A perforated bag was included as control. Independent of harvest maturity, the best results of MAP were obtained with fruit packed immediately after harvest. A delay period of thirty days reduced fruit softening only for the subsequent 30 days of storage. MAP was ineffective in maintaining fruit firmness when fruit were packed after being held 60 days at 0ºC. The time to reach the eating ripening stage (<9 N) during 20ºC shelf life was extended with the modified atmosphere bag. Fruit from both orchards behaved similarly in response to the MAP technology.