

SUMMARY OF NEW ZEALAND AND CALIFORNIAN EXPERIENCE WITH “SNAP” PICKING

Allan Woolf¹, Anne White¹, James Sievert² and Mary Lu Arpaia²

¹HortResearch, Auckland, New Zealand

²Dept. of Botany and Plant Sciences, University of California, Riverside

The current method for harvesting avocados involves cutting the pedicel (fruit stem) with clippers to leave the cut pedicel (or “button”) still attached to the fruit. However, an alternative method is to simply pull the fruit from the tree (“snap” picking) which results in no button on the harvested fruit.

“Snap” picking is attractive as a more rapid method of harvesting, although questions have been raised as to the postharvest performance of the fruit compared to fruit cut from the tree. Research in both California and New Zealand has examined the effect of snap picking on postharvest quality of ‘Hass’ avocados. In both countries, no consistent effect of harvesting technique was found on the weight loss or time to ripen. However, some effects on fruit quality, particularly stem end rots were observed.

In New Zealand, fruit picked after rain had more stem end rots than fruit picked during dry conditions. Large differences were also observed between orchards, and over the harvesting season. In the third year of research where there were dry growing conditions, “snap” picked fruit was of higher quality than clipped fruit. These results highlight the possible variability in fruit response.

Californian research examined a wide range of growing environments and times in the season over 3 seasons. In general, fruit quality of “snap” picked fruit was as high as, or higher than clipped fruit. However, one orchard in particular showed higher levels of stem end rots on all occasions. This orchard was located in a coastal area with high relative humidity, and this may be the reason for the higher stem end rot incidence. In early season fruit, some increase in shrivel has been observed in snap picked fruit. No differences in the rate of ripening or the development of postharvest disorders were detected between the “snap” and “clipped” fruit.

New Zealand work examined the effect of postharvest handling conditions on fruit quality (storage, ethylene treatment and ripening conditions). This research demonstrated that the best quality could be achieved by storing or ethylene treating fruit, and ripening fruit at 15C (59F) rather than 20 or 25C (68 or 77F, respectively).

On the basis of three years research in two countries, the following recommendations can be made. Fruit harvested by “snap” picking is highly likely to be of equal quality to clipped fruit if the growing environment is generally dry (i.e. less rain). If fruit is harvested from more humid or high rainfall environments, then fruit should be either ethylene treated or stored, and preferably ripened at 15C.

There may however be market and/or consumer resistance to fruit which is snap picked as fruit may be perceived to be “windfall”, or of lower inherent quality. Education of fruit handlers may therefore be required, possibly by carrying out wider industry trials to gauge re-

sponse. Both the benefits and negative aspects of snap picking must be weighed-up by each country before “snap” picking is adopted.