Title Effect of packhouse procedures on lenticel discolouration of mangoes

Author R.B. Cronje

Citation ISHS Acta Horticulturae 820:673-680. 2009.

Keyword *Mangifera indica* L.; lenticels; salt; pH; brushing

Abstract

Handling of mangoes in the packhouse can contribute to damage on the fruit including lenticel discolouration. Packline procedures can induce or reduce lenticel discolouration. Due to observations made in the 2003/04-season, trials were conducted on Tommy Atkins and Keitt fruit at Hoedspruit, South Africa, to determine the effect of different ranges of pH and electric conductivity. Furthermore, the effect of duration and type of brushes fruits are subjected to were studied in two different packhouses. Increasing concentrations of common salt in a water bath reduced lenticel discolouration significantly compared to the full packline treatment. Where fruit received hot water treatment after the salt bath, lenticel discolouration was even more reduced. Changes in pH of water as well as in the chemical bath did not significantly increase or reduce lenticel discolouration. Soft brushes used for waxing caused little lenticel discolouration, whereas brushes after the hot water bath showed increased discolouration. Only in one of the two packlines evaluated was there a visible trend reflecting increased lenticel discolouration with increased time on the brushes. Certain positive trends were observed in this study, but further research is necessary to confirm these and make recommendations to packhouses.