

Abstract:

Mango growers in the region of Petrolina - PE, Brazil, are facing a new problem that is the brown spots that appear in the fruits before harvest. In order to study and characterise the defect, brown spots were examined through Scanning Electronic Microscope (SEM). Tommy Atkins mangoes at harvest maturity usually display a red blush in the peel whose extension vary according to sun exposure among other factors. An attempt was made in this experiment to identify the differences between affected and non-affected fruits and between green and red areas of the peel. A wax-covering layer was seen in the green mango peel. The wax however was in crystalline state, easily breakable and loosening. SEM images showed that although waxes covered the peel surface there were areas of unprotected skin that coincided with the brown spot. In the red peel without spots it could be observed that the breaking (or micro-crack) starts from the stomata. In the red peel with spots waxes did not cover the spot area and stomata were closed.