

Abstract:

Tommy Atkins mangoes were harvested in Mossoró, Brazil in order to investigate the evolution of the physical features of the epicuticular waxes. Fruits were collected in 4 stages of development as follows: Stage I – fruit with 4 to 5 cm in length, Stage II – fruit with 7 to 8 cm in length, Stage III – fruit with 9 to 10 cm in length and Stage IV – fruit with 10 to 11 cm in length. Samples of the peel were cut, placed on paper filter and dehydrated in a desiccator to be examined in Scanning Electronic Microscope (SEM) after being covered with gold. It was found that Stage II was the most susceptible to skin damages, the phase in which the beginning of breakage in the waxes could be observed, with change in their physical state from amorphous into crystalline, as well as the appearance of superficial micro-cracks. Fruits in Stage I displayed good wax covering and functional stoma. In Stages III and IV stomata were closed and inactive, waxes had crystalline aspect and parts without waxes were seen the skin.