Abstract

As storage time increases, a number of pathological and physiological disorders become apparent on the fruit surface, and are of commercial significance. Physiological disorders commonly observed include; "spotting" (minute black spots appearing as dots on the skin surface), and "black blotch" (discrete areas of blackening of the skin surface). Pathological disorders include; puncture wounds (caused by the blossom end spike), apex rats (rots originating at the blossom end spike), "black spot" (circular spots with black margins that increase in size, particularly after storage), and "crazing rot" (areas of infection with wide range of infection symptoms). Previous research has shown that as fruit increase in size in the late stages of development, various problems occur such as skin cracking. We suggest that many of the disorders noted above are related to the nature of the skin, or specifically the epidermis of the persimmon fruit. We have carried out staining and microscopic examination of the skin of ' Fuyu' fruit, and isolations of pathogens from the skin tissue. Fruit were sourced both at harvest, from various positions in the tree canopy (exposed, shade, fruit with leaves or other fruit touching), and also after various postharvest treatments such as heat treatments. Preliminary results suggest that understanding and manipulating skin integrity both pre and postharvest, will result in fruit quality improvements after storage.