

PREHARVEST CULTURAL PRACTICES AFFECT POSTHARVEST QUALITY ATTRIBUTES OF BANANA FRUITS, *Musa* spp

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Abstract (C2006)

Preharvest factors including agro-ecological conditions, cultural practices and crop variety selection greatly impact fruit quality potential at harvest and postharvest longevity. In this study, quality attributes of banana fruits (*Musa* spp), cultivars 'Williams' and 'Grande naine' produced under low chemical production system (LCPS) and conventional production systems (CPS) were investigated. The fruits produced under the two production systems were evaluated for various physicochemical attributes including peel hue angle, firmness, moisture content, starch, soluble sugars and titratable acidity (TTA). Sensory evaluation by untrained panelists was done to compare the organoleptic attributes of the banana fruits. The results showed that 'Williams' bananas from the LCPS had better eating quality as evidenced by higher soluble sugars, less starch and lower flesh firmness and higher moisture content of the ripened fruits. 'Grande naine' bananas generally had higher levels of TTA compared to 'Williams' and in both cultivars LCPS bananas had higher TTA levels compared to CPS bananas. These quality attributes were affected by seasonal variability in climatic conditions. Sensory panelists did not clearly discriminate between LCPS and CPS bananas but showed preference for 'Williams' bananas over 'Grande naine' bananas. These results show that banana variety, cultural practices and harvest season affect the banana quality attributes at harvest and affect the eating quality of the fruits.

Keywords: *Musa* spp. organic, conventional, production system, quality