

Title Effect of seasonal variation, cultivar and production system on some postharvest characteristics of the banana

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Abstract

Physicochemical characteristics (including peel/pulp firmness, peel color, soluble sugars, starch, titratable acidity and moisture content) were determined in two cultivars of banana (*Musa* spp. 'Williams' and 'Grande naine'). The bananas were cultivated in Ecuador under two production systems; low chemical production systems (LCPS) and conventional production system (CPS). The one -year evaluation period was marked by changes in the weather pattern, thereby enabling us to evaluate the effects of seasonal variation on the banana characteristics. The results showed that bananas grown under LCPS tend to have higher levels of soluble sugars and titratable acidity and that the levels were higher during the dry season compared to the wet season. Moisture content of the fruit pulp decreased as it became drier, while the peel and pulp firmness levels were higher in drier periods; fruits from CPS were generally more firm. In 'Williams', fruits from LCPS generally had lower levels of starch compared to those from CPS; however no clear trend was observed in 'Grande naine'. In general there was an interaction in the various pre-harvest factors in determining the fruit quality potential at harvest and characteristics evaluated in this study.