Title Mechanical Damage of Packages Hom and Khai Banana

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Abstract

This research was to determine mechanical damage of Hom and Khai banana in distribution packaging.Methodology comprised sampling of the packaged Hom and Khai banana from the big fruit wholesalers at the Pathommongkol market, Nakohnpathom, Thai market, Pathumtanee and that from the retailer at the Treesuk market Kamphaengsaen, Nakohnpathom, Yingjalearn market, Bangkok for damage analysis. Results showed that wholesale packaging e.g. small plastic Kheng of 42.5 cm mouth diameter by 29.2 cm height used for Hom and Khai banana, medium plastic Kheng of 56.8 cm mouth diameter by 45.5 cm height and medium bamboo-made Kheng of 52 cm diameter by 36.5 cm height used for Khai banana caused the mechanical damage. The small plastic Kheng of Hom banana and small plastic Kheng with medium plastic Kheng of Khai banana included 77.72% and 68.50% of bruising respectively, 96.15% and 88.52% of abrasion respectively, 11.29% and 75.84% of gummosis and 98.08% and 68.07% of scratch. Hom and Khai banana were packed in retail packaging.g. small plastic Kheng of 42.5 cm mouth diameter by 29.2 cm height used for Hom and Khai banana, large plastic Kheng of 67.5 cm mouth diameter by 51.6 cm height, plastic crate of 36.5x57.5 x33.5 cm. The large bamboo-made Kheng of 45.5 cm diameter by 75 cm height and used for packaging Khai banana that imparted the mechanical damage. The small plastic Kheng of Hom banana and large plastic Kheng with large bamboo Kheng of Khai banana included 92.61% and 88.77% of bruising respectively, 99.22% and 100% of abrasion respectively, 25.21% and 32.85% of gummosis respectively, 86.84% and 97.01% of scratch. When a hand of banana was placed on a table with its convex contacting the table surface, 34-46% and 21-37% banana fingers carried the whole weight of the banana hand for Hom and Khai banana respectively. When the banana got ripe, bruise correspondingly happened under the contact point. Partitioning the hand of banana into 1/2 1/3 and 1/4 portion of the original hand reduced the bruised area.