



Research Paper

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Effect of post harvest application of growth regulators, wax emulsion and packaging on physical characters and shelf life of banana cv. ROBUSTA

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ABSTRACT : The experiment was conducted in the year 2006 at Department of Horticulture, B. A. College of Agriculture, Anand Agricultural University, Anand to investigate the effect of post harvest application of growth regulators, wax emulsion and packaging on physical characters and shelf life of banana cv. ROBUSTA. This experiment was conducted under Completely Randomized Design (Factorial) and repeated under thrice time with seven treatments and two storage conditions *i.e.* without packaging and with packaging. One set of seven treatments treated fruits were stored separately in corrugated paper boxes and other was remained in open condition *i.e.* at ambient temperature. The fruits were subjected to various observations on physical and storage parameters, respectively. The result revealed that fruits with packaging and post harvest treatment of GA₃ – 150 ppm proved to be the best treatment than rest of the treatments. The treatment effectively reduced physiological loss in weight with minimum changes in physical parameters than the rest of the treatments and hence can be used for post harvest management of banana fruits. Interaction of storage condition and various post harvest treatments were found to non-significant with respect to all physiological parameters and shelf life of banana fruits.

KEY WORDS : Banana, Post harvest treatments, Packaging, Physical parameters, Shelf life

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Banana (*Musa paradisiaca* L.), which belongs to the family Musaceae, is one of the most important fruit crop of the world. In India banana is predominant and popular among the peoples as they are relished and consumed by all kind of peoples. Considering the nutritive and fruit values of banana it is believed to be the “Poor mans’ apple” and it is the cheapest among all the fruits in the country. Bananas have very beneficial nutritional properties. Banana is a good source of vitamin A, a fair source of vitamin C and B₂. Bananas have a high content of carbohydrates and fiber, while they are low in protein levels and fat. They are also rich in potassium. It has become an inevitable necessity in Indian household for all function and table purpose due to its year round availability unlike the seasonal availability of the other fruits. Today, it is the leading tropical fruit in the world market with a highly organized and developed industry. It is grown in to Bangladesh, Thailand, Indonesia, Philippines, Sri Lanka,

Brazil, and Kenya etc.

In India, banana production is about 29.78 lakhs tonnes and area is about 830 thousands ha with an average productivity of 35.9 MT/ha (Anonymous, 2011). Tamilnadu, Maharashtra, Kerala, Gujarat and Karnataka are the leading states in banana production in India. In Gujarat, total area under banana is 64.7 thousands ha with 39.78 lakhs MT production with an average productivity of 61.50 MT/ha (Anonymous, 2010). This crop is cultivated in the district of Surat, Baroda, Bharuch, Navsari and Valsad because of climatic condition and abundant water resources through well and canal. Due to great demand of fresh fruits in the market, it is one of the choiced fruit of the growers after mango and sapota in Gujarat.

There is a considerable variation exists in the quality of harvested fruit due to genetical, environmental and agronomic factors and, therefore, requires effective packaging to get