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## Studies on the effect of post harvest treatmets on chemical changes during ripening of banana fruits cv. Grand Naine

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**SUMMARY :** The present investigation, studies on effect of post harvest treatments on chemical changes during ripening of banana fruits cv. Grand Naine was conducted in Post Graduate Laboratory, Department of Horticulture, B.A.College of Agriculture, Anand Agricultural University, Anand during October 2007. The experiment was carried out in Completely Randomized Design with four replications and six treatments. Treatments were applied with different concentrations of ethrel @ 500, 750, 1000 ppm (2 minutes dip), hot water and ethrel 250 ppm (2 minutes dip), ethrel 250 ppm (2 minutes dip) along with storing in ice and simply dipping in water formed control treatment. The different ethrel concentrations significantly influenced the chemical changes during ripening of banana fruits. Thus, it can be concluded that the banana fruits treated with ethrel at 1000 ppm was found the best for early ripening of fruits up to 8 days of storage.

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**B** anana occupies a prominent place among the fruit crops grown in India. Since banana is a climacteric fruit, it is highly perishable in nature. Physiological changes occurs during the post harvest storage of banana makes it unfit for consumption. The shelf life of fruits can be effectively increased if such changes are reduced. So efforts to increase the shelf life of banana should focus on decreasing the metabolic rate and reducing the synthesis of ethylene in harvested fruits. The studies on decreasing metabolic rate in banana by different post harvest treatments has been reported by George and Murangaragi (1995). Keeping the above view, the present investigation was undertaken to study the effect of post harvest treatments on chemical changes during ripening of banana cv. Grand Naine.

## EXPERIMENTAL METHODS

The present investigation entitled studies on effect

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S.S. HIWALE. AND H.B.PATIL, Department of Horticulture, Post Graduate Laboratory, B.A.College of Agriculture, Anand Agricultural University, ANAND (GUJARAT) INDIA of post harvest treatments on chemical changes during ripening gof banana cv. Grand Naine" was conducted during October 2007 at the Post Graduate Laboratory, Department of Horticulture, B. A. College of Agriculture, Anand Agricultural University, Anand. Mature and fully developed fruits of uniform size, maturity and free from injuries were obtained from banana orchard Department of Horticulture, B.A.College of Agriculture, Anand Agricultural University Anand. The experiment was conducted in a Completely Randomized Design with four replications and six treatments viz., T<sub>0</sub>- Control (dipping in water for 2 minutes), T<sub>1</sub>- Ethrel 500 ppm (dipping for 2 minutes), T<sub>2</sub>- Ethrel 750 ppm (dipping for 2 minutes), T<sub>3</sub>-Ethrel 1000 ppm (dipping for 2 minutes),  $T_4$ - Hot water dipping + Ethrel 250 ppm (dipping for 2 minutes),  $T_5$ - Ice + Ethrel 250 ppm (5kg banana+ 1kg ice kept in air tight chamber for 24 hours. Uniform size fruits were randomly selected for each treatment and fruits were dipped in the respective solution for 2 minutes and then dried in shade for 30 minutes under fan. Fruits dipped in distilled water (2 minutes) were treated as control. Treated fruits were covered in gunny bags and were kept at room temperature  $(25^{\circ} \text{ C to } 30^{\circ} \text{ C})$  under 65-75 per cent relative humidity. Detailed observations were recorded at 2nd, 4th, 6th, and 8th days of storage for all the parameters like total soluble solids (°Brix), reducing sugar (per cent), total sugar (per cent), titrable acidity (per cent) and ascorbic acid (mg/