## RESPONSE OF VARIOUS PHYSICO-CHEMICAL TREATMENTS ON PHYSIOLOGICAL ATTRIBUTING CHARACTERS IN MANGO (MANGIFERA INDICA L.) CV. AMRAPALI

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Abstract: An experiment was laid out in Post-Harvest Laboratory, department of horticulture, SVBPUAT, Meerut to assess the effect of various physico-chemical treatments on various physico-chemical treatments on physiological attributing characters in mango (*Mangifera indica* L.) cv. Amrapali. The experiment was conducted in CRD with fourteen treatments and three replications. Out of these, ethrel 750 ppm treated fruits showed better results followed by ethrel 500 ppm. The pedicellate fruits and ethrel+bavistin (750+1000 ppm) were also found to be significantly superior over control in respect of fruit skin colour, flavour/aroma, organoleptic taste and fruit marketability. Based on results of this study, it can be concluded that ethrel 750 ppm was found to be the most suitable treatment in improving physiological traits i.e. fruit skin colour, flavour/aroma, organoleptic taste and fruit marketability.

Key words: Amrapali, Fruit marketability, Fruit skin colour, Flavour/aroma, Organoleptic taste, Physical and Chemical treatments.

## REFERENCES

- **Anonymous**, (2006). Indian Horticulture Data Base, National Horticulture Board (NHB), Gurgaon, Haryana (India).
- **Dhemre, J.K. and Waskar, D.P.** (2003). Effect of postharvest treatments on shelf-life and quality of Kesar mango fruit during storage. *Journal of Maharastra Agriculture University*. **23**(1):159-163.
- **Dhemre, J.K. and Waskar, D.P.** (2004). Effect of postharvest treatments on shelf-life and quality of mango in evaporative cool chamber and ambient conditions. *Journal of Food Science and Technology*, Mysore, **40**(3):316-318.
- Goburdhan, S. (1994). Chemical ripening of dwarf Cavendish banana (cv. Naine) I-Effect of ethrel and ethylene on ripening. II-Extension of shelf-life of ripened fruits. Revue Agricole-et-Sucriere-de-Vile, Maurice. 73(3):36-43.
- Gomez, A.K. and Gomez, A.A. (1996). Statistical procedure for Agricultural Research. 2John Willey and Sons Pnc, New York.

- **Hiwale, S.S. and Singh, S.P.** (2003). Prolonging shelf-life of guava. *Indian Journal of Horticulture*, **60** (1):1-9
- Kader, A.A. (1992). Post-harvest biology and technology: An overview: In post-harvest technology of Horticulture crops Ed., A.A. Kader Publication No.3311 University of California, California.
- Madhvi, M.; Srihari, D. and Dilip, Babu, J. (2005). Effect of post–harvest ethrel treatment on ripening and quality of sapota cv. Pala fruits. *Indian Journal of Horticulture*, **62**(2):187-189.
- Prakash, S.; Nautiyal, M.C. and Kumar, A. (1996). Response of pedicellate fruits on post-harvest behavior of pear. *Indian Journal of Horticulture*, 53(1):27-31.
- **Singh , J.P. and Mandal, B.K.** (2000). Role of wrapper and post –harvest application of CaNO<sub>3</sub> on the storage behavior of sub-tropical litchi cv. Manaraji . *Journal of Applied Biology.* **10**(1):37-42.
- **Singh, Z. and Janes, J.** (2001). Effect of post harvest application of ethephone on fruit ripening, quality and shelf–life of mango under modified atmosphere packaging. *Acta Horticulture*, **533**:599-602

**Wasker, D.P. and Masalkar, S.D.** (1997). Effect of hydro–cooling and bavistin dip on shelf life and quality of mango during storage under various environments. *Acta Horticulture*, **455**:687-695

Yah, A.R.; Gonzalez Novelo, S.A.; Tamayo Cortes, J.A.; Argumedo, J.J. and Sauri Duch, E. (1998). Effect of ethephone on the colour, composition and quality of mango cv. Kent. Food Science and Technology International /ciencia-y Technologia-de-Alimentos Internacional. 4(3):199-205.