

भाक अनुप-भारतीय बागवानी अनुसंधान संस्थान

हेसरघट्टा लेक पोस्ट, बैंगलूरू - 560 089

ICAR - INDIAN INSTITUTE OF HORTICULTURAL RESEARCH

Hessaraghatta Lake Post, Bengaluru-560 089

💠 सरदार पटेल उत्कृष्ट भाकअनुप संस्थान पुरस्कार 2010 💠

❖ Sardar Patel Outstanding ICAR Institution Award 2010 ❖

CONSULTANCY SERVICE REPORT ON

Testing of ETHY RIPEX™ for ripening of mango and banana

Client

: M/S Benz-O-Chem, Bangalore-560 058

Method

Mature mango (Banganapalli and Neelam) and banana (Grand Naine) fruits were placed in ventilated plastic crates and put in a walk-in cold room set at 27°C. The ETHY RIPEXTM was poured into the Catalyst Gas Generator that was placed inside the cold room. The generator was set at 100 ppm gas and the fruits were exposed to this liberated gas from ETHY RIPEX™ for 24 hours. After 24 hours of exposure the fruits were stored at room temperature (25-31°C) in case of mango and at 20°C in case of banana. Non treated control fruits were also stored at room temperature from the day of harvesting. The fruits from both treatments were analyzed for different quality parameters when they were fully ripe.

Summary of Findings

From the above experiment, it is concluded that exposing of mature green mango and banana fruits to the gas released from ETHY RIPEX TM (using catalytic generator) was useful in enhancing the ripening process compared to traditional way of allowing the fruits to ripen naturally. The ETHY RIPEX $^{\text{TM}}$ gas exposed mango (Banganapalli and Neelam) and banana (Grand Naine) fruits ripened in 5 days after exposure compared to 10 days in non-exposed fruits. In case of non-treated fruits, as the fruits took longer duration to ripen, the weight loss was significantly more. Further, in case of non-treated banana, the fruits started spoiling by the time they were fully ripe. The quality of fruits (in terms of surface colour development, firmness, sugars, vitamins and sensory quality including taste and flavour) ripened using gas released from ETHY RIPEX TM was not adversely affected and quite similar to those ripened naturally.

> Principal Scientist (Horticulture) Division of Post Harvest Technology Indian Institute of Horticultural Research Hessarghatta Lake Post, Bangalore - 560 089