

## 2<sup>nd</sup> International Conference on **Agricultural & Horticultural Sciences**

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### **Irradiation technology and storage temperature influence the physiological changes and shelf life of Alphonso mango (*Mangifera indica* L.)**

M. K. Yadav<sup>1</sup> and N. L. Patel<sup>2</sup>

<sup>1</sup>N. M. College of Agriculture, India

<sup>2</sup>ASPEE College of Horticulture and Forestry, Navsari Agricultural University, India

The important task of any postharvest technology is to be developing methods by which deterioration of produce is restricted as much as possible during the period between harvest and consumption. The regulation of ripening is a crucial important factor to supplying the fruits to consumers with acceptable eating quality. The experiment was arranged with sixteen treatment combinations of irradiation doses (0.00kGy, 0.20kGy, 0.40kGy and 0.60kGy) and similar to storage temperature (Ambient at 27±2°C and 60-70% RH, 9°C and 90% RH, 12°C and 90% RH and Control atmospheric (CA) storage (12°C, O<sub>2</sub> 2%, CO<sub>2</sub> 3% and RH 90%). The fruits were exposed to gamma radiation for different doses from the source of <sup>60</sup>Co at ISOMED plant of Sir Bhabha Atomic Research Centre, Mumbai (India). The two years collective data indicated that the fruits irradiated with 0.40kGy gamma rays recorded significantly minimum per cent reduction in physiological loss in weight, reduced ripening per cent, increased marketability of fruits and maximum average days to ripening and shelf life of fruits. Similar pattern were noticed when fruits kept at 9°C storage temperature. The combined effect of 0.40kGy gamma rays irradiation and 9°C storage temperature recorded maximum reduction in the physiological loss in weight, reduced ripening, increased marketability of fruits throughout the storage period and maximum shelf life. Suggestions are made for maximizing storage potential by use of irradiation and adequate storage facilities for qualitative and hygiene produces.

#### **Biography**

M. K. Yadav has completed his graduation from Maharana Pratap University of Agriculture & Technology, Udaipur (Rajasthan) India and Ph.D. at the age of 33 years from Navsari Agricultural University, Navsari (Gujarat) India. He has served at various capacities in various organizations and presently, a horticulturist at Mechanized Agriculture Farm, MPUAT campus Kota, Rajasthan. He has published more than 15 research papers and 100's of popular and proceeding articles in reputed journals/magazines and serving as an editorial board member of repute in various national and international societies. He participated in more than 35 national and international seminar/symposia and presented papers there off. He also visited Rome, Republican of Dominica and Nepal.

manoj\_bioversity@hotmail.com

### **Agricultural growth performance and fluctuations in crop output of selected crops in Odisha: A disaggregate analysis**

Asis Kumar Senapati and Phanindra Goyari

University of Hyderabad, India

Sustained growth in agricultural production and productivity through adoption of new technology in form of "Green Revolution" has been the doctor order so as to improve the overall stability of the Odisha economy. The nature of technology that became available to the various states and regions have reinforced huge variations and hence followed an uneven path and wide gaps have developed in productivity between different geographic locations across the country. In the context of variability of agricultural production due to certain weather induced variables, the proposed study made an attempt to examine the growth, instability and Sensitivity of crop output to weather particularly rainfall of major crops both at the aggregate and disaggregate level of Odisha. The present study is based on the hypothesis that instability/Variability of various crops augmented during Post-Green Revolution phase in Odisha and there has been negative association between instability and growth of crop production. Sensitivity of crop output to the rainfall variability has been noticeable in almost all crops in the 2<sup>nd</sup> period as compared to the initial phase of green revolution for all districts except for few crops. In other words, crop output in various districts of Odisha is highly vulnerable to the climate variability.

#### **Biography**

Asis Kumar Senapati is a UGC-SRF Doctoral Research fellow Currently Pursuing Ph.D. on "Risk, Vulnerability in Indian Agriculture Sector and the role of crop insurance in mitigating risk: with special reference to Odisha agriculture" in School of Economics, University of Hyderabad since February, 2010. He has attended and presented research papers at a number of international and national conferences. He has published papers in various journals. His research area of interest is Industrial Economics, Agricultural Economics, Development Economics, Econometrics and Macro Economics.

asiseco@gmail.com