



Dear Colleagues,

Wish you and your family a Happy, Healthy and prosperous New Year.

With your active support I assume the Chair of the Section during IHC 2010 at Lisbon, Portugal. In the last a little more than one year, Section was responsible for many international activities and we have planned more symposiums for 2012. The Section is also collaborating with other Sections and Commissions of ISHS in organizing different scientific activities. In 2011, Japan has witnessed devastating earthquake and tsunami and the organizing committee of the II Asian Horticultural Congress AHC 2012 has to cancel the AHC 2012 scheduled to be held from March 27 – 30, 2012 at Tsukuba, Japan. I have received request from my colleagues for creation of working groups on Jackfruit and other Moraceae, Avocado and Date Palm and other Tropical Palmae. The ISHS Executive Committee has approved all the three proposed new working groups in this Section. I believe we will be able to organize the first International Symposium on Jackfruit and other Moraceae and on Avocado in near future.

The working group on Pineapple is regularly circulating Pineapple News and I look forward to see such activity from other working groups also. This e-newsletter is yours and you are welcome to use as a vehicle to disseminate information's to other colleagues. I will be pleased to receive comments, suggestions and will look forward for your inputs for the next issue.

With best wishes

S.K.Mitra

Chair



NEWS AND VIEWS

Tropical and Sub- tropical fruits are very diverse and abundant. There are about 3000 tropical and sub tropical fruits species worldwide, close to 500 of which are found in Asia. In general, tropical fruits produced worldwide are for domestic consumption, except for major fruits like mango, banana, citrus, pineapple, papaya and avocado, which are traded in the global markets. These fruits are generally produced on a commercial scale and their commercialization has, to a large extent, been affecting the development of other less traded varieties. There are already efforts to commercialize the production of some other tropical and subtropical fruits like litchi, guava, mangosteen, pitaya, pummello, durian etc.

It is apparent that the domestic and export markets call for different treatments for the fruits. However, lately it has been observed, that with the flourishing of hypermarkets and supermarkets, tropical fruits in particular the minor ones have been shown receive better response from consumers, due to better quality and packaging. Therefore, improvement can be seen as more consumers opt for the bigger and cleaner stores rather than the fresh market. It is also possible nowadays to find a seasonal fruit on the shelves, which denotes that off season production is now possible, to take advantage of better prices.

NEWS FOCUS

Former President of Ghana and Brazil win World Food Prize

The world Food Prize Foundation honoured John Agyekum Kufuor, former President of Ghana, and Luiz Inacio Lula da Silva, former President of Brazil with the World Food Prize 2011, in a ceremony at the US State Department on June 21, 2011. The award was conferred to them for creating and implementing government policies that alleviated hunger and poverty in their respective countries.

Under President Kufuor's leadership, Ghana became the first sub-Saharan African country to cut in half the proportion of its people who



suffer from hunger, and the proportion of people living on less than a dollar per day, on its course to meet UN Millennium Development Goal1. Ghana saw a reduction in its poverty rate from 51.7 percent in 1991 to 26.5 percent in 2008, and hunger was reduced from 34 percent in 1990 to 9 percent in 2004.

In Brazil, during Lula da Silva's tenure, UN Millennium Development Goal1 was exceeded as proportion of people suffering from hunger reduced by half with 93 per cent of children and 82 per cent of adults eating three meals a day. The percentage of Brazilians living in extreme poverty also reduced from 12 percent in 2003 to 4.8 percent in 2009.

The World Food Prize was created in 1987 by Nobel Peace Prize winner Dr. Norman Borlaug to recognize individuals who have contributed landmark achievements in increasing the quality, quantity or availability of food in the world.

Source: USAID

Global Frozen Fruits and Vegetables Market to Reach 22.6 Million Tons by 2015.

The global frozen foods market continues to expand even in the wake of adverse economic conditions, driven by consumer desire for convenient and faster-to-prepare foods. Further, the advent of innovative products and packaging, and growing health consciousness of consumers are also contributing to increased consumption of a wide variety of frozen foods. The USA and Europe collectively account for a major share of the global frozen food market. Asia Pacific and Latin America are the fastest growing regional markets for frozen fruits and vegetables with CAGR ranging between 4% and 5.5% for the period of 2007 – 2015. The frozen vegetables market in the United States continues to witness growth, despite the adverse economic conditions. The introduction of novel preparation methods and packaging options has contributed to the sustained demand for frozen vegetables in recent years. Frozen fruits account for relatively smaller share of the overall market for frozen fruits and vegetables.

Source: Global Industry Analyst Inc



Table grapes exports to Russia from Peru rises 285.8%

Table grapes exports to Russia from Peru to Russia increased from 200 MT in 2005 -06 to 6.6 thousand MT in 2010-11 making the Eastern market the fourth biggest receiver of the Peruvian grape exports. During 2009-10, table grapes exports from Peru to Russian markets increased 238.2% over previous year, to reach 1.9 thousand MT, which registered a growth of 285.8% during the year 2010-11 to US\$ 13.5 million, from US\$ 3.5 million in the previous year.

Source: www.freshplaza.com

Higher food prices and volatility in agriculture commodity market to stay: OECD – UN FAO report

According to the OECD – FAO Agricultural Outlook 2011 – 2020, a good harvest of major food crops in the year 2011-12 is likely to bring a commodity prices down from the extreme levels observed during the past two years. However, the outlook states that over the coming decade real prices for cereals could average as much as 20 percent higher and those for meats as much as 30 percent higher, compared to the decade 2001-10.

Higher prices for commodity may lead to rising consumer price inflation in most countries, raising concerns over economic stability and food security in some developing countries. Given the situation, the report emphasizes on requirement of coherent policies to reduce volatility and limit its negative impacts. The key solutions to the problem cited in the report are boosting investment in agriculture and reinforcing rural development in developing countries, and that actions should focus particularly on small – holders in low – income food – deficit countries.

Source: OECD – FAO



ACTIVITIES

Symposium/ Conference held between August 2010 and December 2011

I. International Symposium on Tropical Horticulture

The symposium was held at Kingston, Jamaica from 23 November to 26 November, 2010 in collaboration with section Ornamental Plants and Commission Education, Research Training and Consultancy. The proceedings of this symposium have been published as *Acta Horticulturae* 894.

II. Global conference on Augmenting Production and Utilization of Mango: Biotic and Abiotic Stresses

The conference was held at Lucknow, India from 21 June to 23 June, 2011.

III. II International Jujube symposium:

The symposium was held at Henan, China from 3 September to 7 September, 2011 in collaboration with Section Medicinal and Aromatic Plants and Section Pome and Stone Fruits.

IV. I International Symposium on Date Palm:

The symposium was held at Algiers, Algeria from 13 November to 14 November, 2011.

V.III International Symposium on Tropical Wines:

The symposium was held at Chiang Mai, Thailand from 14 November to 16 November 2011 in collaboration with Section Vine and Berry Fruits.

VI. III International Symposium on Papaya – Royal Flora 2011.

The symposium was held at Chiang Mai, Thailand from 19 December to 22 December 2011.

VII. International Symposium on Tropical and Sub tropical Fruits - Royal Flora 2011.

The symposium was held at Chiang Mai, Thailand from 19 December to 22 December 2011.

ACTIVITIES SCHEDULED FOR 2012.

I. April 23 – 25, 2012, Petrolina, Brazil. III International Symposium on Guava and other Myrtaceae. Info. Dr. Carlos Antonio Fernandes Santos.

E- mail: casantos@cpatsa.embrapa.br

II. May 19 – 25, 2012, Chanthaburi, Thailand. VII International Symposium on Mineral Nutrition of Fruit Crops. Info: Dr. Sumitra Poovarodom.

Email: mnutrition7@kmitl.ac.th

In collaboration with Section Pome and Stone Fruits.

III. June 18 – 22, 2012, Guangzhou, China. V International Symposium on Tropical and Sub tropical Fruits. Info: Dr. Ganjun Yi.

E-mail: yiganjun@vip.163.com

IV. October 20-26, 2012, Wuhan, China. V International Symposium on Persimmon. Info: Dr. Zhengrong Luo.

Email: persimmon@mail.hzau.edu.cn

V. December 2 – 6, 2012, White River (Kruger National Park), South Africa. IV International Symposium on Lychee, Longan and Other Sapindaceae Fruits. Info: Mr. Derek Dokin.

Email: derek@subtrop.co.za

An underutilized tropical fruit with rich nutritional and medicinal value-----

AONLA (*Emblica officinalis*)

The tree is hardy, prolific bearer and a suitable choice for arid regions of India. Aonla fruit is a rich source of vitamin C (500-600mg/ 100g). It also contains proteins and different minerals like calcium, phosphorus and iron. The high vitamin C content of fruit makes its wide use in Ayurvedic medicine. The fruit contains kaempferol, quercetin and rutin. All these compounds are partial cardiotoxic. The fruit also contains phyllembin, which regulates blood pressure and respiration in normal tune. The fruit is however, not consumed in the fresh form due to its highly acidic and astringent taste. More than 50 processed products are prepared from aonla fruits to exploit nutritional qualities. Conventionally, aonla fruits are used for preparation of murabba, *Chyavanprash*, powder, chutney etc. However, they can be used for products like candy, segments in syrup, supari and churan.



Aonla is a deciduous tree of family Euphorbiaceae. Aonla is believed to be originated in India and is distributed to Sri Lanka, Cuba, Puerto Rico, USA (Hawaii and Florida), Iran, Iraq, Pakistan, China, Malaysia, Thailand, Vietnam, Philippines,

Trinidad, Panama and Japan. The crop has extensive adaptability to grow under diverse climatic conditions ranging from hot tropical plains to humid subtropical mid-elevation hills.

Since very little attention has been given for systematic development of aonla, existing

variability are not conserved. Aonla has been propagated by seeds, thus, variability exists for size of trees, size of fruits, colour of fruits, yield and tolerance to insect, pest and diseases. Superior genotypes like NA-4, NA-5, NA-6 and NA-7 were identified which has become a base of commercial





Aonla can be propagated both by sexual and asexual methods. Soft wood grafting and patch budding are in use. Grafts or budding are planted at 10m x 10 m. Flowering occurs on determinate shoots of spring-season growth in the month of March. Although, fertilization completed within 36 hours of pollination, the embryo remain dormant and ovary showed no symptom of growth for about four to four and half months. The fruit growth started at the end of August and continued up to November.



Aonla plants start bearing quite late, usually after 8-10 years when raised from seeds. The budded plants started fruiting early i.e., after 4 to 5 years. The fruits are light green at first, when they mature, the colour becomes dull, greenish-yellow or rarely brick-red. If the fruits are allowed to remain on the tree till the next flowering takes place, it gives a false impression that the fruits are from current season flowering. The mature fruits are hard and unyielding to the touch and so are well suited for bulk harvesting as well as distant transportation and marketing. Aonla fruits can be stored at 0 to 2°C and 85-90% relative humidity for 8 weeks. A full grown grafted tree produced about 200 kg fruits every year.





NEW BOOKS ON FRUITS

- i) Tropical Fruits, Volume 1. Robert E. Paull and Odilo Duarte, CABI, 2001
- ii) Tropical, Subtropical Fruits and Flowers cultivation, Nir Board, National Institute of Industrial Research.
- iii) Temperate and Subtropical Fruit Production. David Jackson, N.E. Looney, Michael Morley-Bunker and Graham F. Thiele, CABI, 2010
- iv) Hand Pocket Guide to Tropical Fruits. Wendy Hutton and Alberto Cassio, Tuttle Publishing, 2004
- v) Growing Fruit Trees. Novel Concepts and Practices for Successful care and Management: Eds. Jean-Marie Lespinasse and Evelyne Leterme, W.W. Norton & Company, New York, London, 2011.
- vi) Wild Crop Relatives: Genomic and Breeding Resources, Tropical and Subtropical Fruits. Ed. Kole, C. Springer-Verlag, Berlin, Heidelberg, Germany, 2011.
- vii) Mango: Postharvest best management Practices Manual. Ed. Jeffrey K. Brecht. University of Florida, USA. 2010.
- viii) The Jackfruit. Valavi, S.G., Peter, K.V. and Thottappilly, G. Studium Press, New Delhi, 2011.

Please send your comments, suggestions and inputs for the next issue to
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