SHORT COMMUNICATION

Tropical and Subtropical Fruits in India
Sisir Mitra

Heliconia Cultivar Registration
Dave Skinner, Jan Hintze, Bryan Brunner

RESEARCH ARTICLES

Estimation of Genetic Parameter for Quantitative Characters of Pepper (Capsicum annuum L.)
Muhamad Syukur, Syaidatul Rosidah

Irrigation Volume Based on Pan Evaporation and Their Effects on Water Use Efficiency and Yield of Hydroponically Grown Chilli
Eko Sulistyono, Abe Eiko Juliana

Evaluation of Commercial Sunflower (Helianthus annuus L.) Cultivars in Bogor, Indonesia, for Ornamental and Nursery Production
Syarifah Iis Aisyah, Khotimah, Krisantini

Different Growth Partitioning and Shoot Production of Talinum triangulare Treated with Organic and Inorganic Fertilizer
Sandra Arifin Aziz, Leo Mualim, Sitta Azmi Farchany

Cloning and Characterization of P5CS1 and P5CS2 Genes from Saccharum officinarum L. under Drought Stress
Hayati Minarsih Iskandar, Dwiyantari Widyaningrum, Sony Suhandono
Introduction

India is the second largest producer of fruits in the world with an annual production of 81.2 million tonnes contributing 12.6% of world fruit production next only to China (21.2%). Of late, with growing population and realization of commercial and nutritional values, the demand and requirement for fruits has increased manifold globally and so is in India. Since then, India has managed a steady growth in area expansion and production of fruits. Even in 2012-2013, increase in area and production of fruits in India was 4.1 and 6.4 times over 2011-2012. Of these, tropical and subtropical fruits contribute a major share, and the important fruits are mango, banana, papaya, citrus, guava, pineapple, litchi, sapota and pomegranate. Among the minor fruits (less area in cultivation than the major fruits) are jackfruit, bael, aonla, carambola, syzygiums, passion fruit and tamarind are also growing in many states of India.

Current status

Globally, India is the leading producer of important tropical fruits such as banana (25.6%), mango and guava (44%), and papaya (42.6%). In terms of production in India, banana occupies the first with 32.6% of the total fruit production followed by mango (22.1%), citrus (12.4%) and papaya (6.6%) respectively though maximum area is registered in mango (2500 thousand ha) followed by Citrus (1042 thousand ha) banana (776 thousand ha) and guava (236 thousand ha) (Table 1).

Mango

Mango is the most popular and the choicest fruit of India occupying about 35.8% of the total area under fruits accounting for 22.1% of the total fruit production. India has more than 1200 mango varieties. The important mango varieties grown in India are Dashehari, Chausa, Langra, Kesar, Himsagar, Fazli, Alphonso, Amrapali etc.

Banana

Banana is suitably grown in almost all the states of India and available round the year. Cultivation of banana using tissue cultured plantlets of Grand Naine has revolutionised the banana industry in India. Dwarf Cavendish, Robusta, Poovan, Red Banana are the common varieties grown all over besides many other indigenous genotypes are also grown in all parts of the country. Banana occupies only 11.1% of total cultivated area under fruits but it contributes 32.6% of total fruit production.

Citrus

Productivity of Citrus is highest in Karnataka (22.0 t.ha⁻¹), followed by in Rajasthan (18.4 t. ha⁻¹) in Arunachal Pradesh and Punjab, limes and lemon are produced round the year. Pramanali, Vikram, Shai Sabarti, Phule Sharbat, Jai Devi and Seedless Lime are the common lime varieties grown in India while Balaji and Rasraj are confined to only few states.

Common lemon varieties like Eureka, Kaggzi Kalan and Assam Lemon are grown all over the country. Sweet lime grown in India includes Mithachinka and Mithota. In India, Mosambi, Valencia and Blood Red dominates in all the sweet orange growing areas. Best quality mandarins are produced in the country. Nagpur Mandarin, Coorg Mandarin, Khasi Mandarin, Darjeeling mandarin, Kinnow Mandarin etc have their own unique qualities.

Guava

Guava accounts for 3.9% of the total fruit production from an area of 3.4% of the total area under fruits in India. Sardar, Allahabad Safeda, Shweta, Lalit, (pink flesh), Allahabad Surkha (deep pink flesh), Khaja (Bengal Safeda) are the varieties growing in different parts of India.

Papaya

India is the leading producer of papaya in the world accounting for 42.6% of the total world production followed by Brazil (12%) and Indonesia (7.2%). Pink Flesh Sweet, Coorg Honey Dew, Sunrise Solo, Taiwan, Pusa Delicious, Pusa Dwarf, Pusa Nanha, Arka Surya, Arka Prabhat, CO1, CO3, CO4, and CO6 are the varieties grown in different parts of the country. Good papain yielding varieties like CO2, CO5 and CO7 have also been developed and are successfully grown.

Pineapple

Kew, Giant Kew, Queen, Mauritius are the only few varieties successfully grown in different parts of the country. Though the current productivity of pineapple in India is only 14.9 t.ha⁻¹, Karnataka has registered a
productivity of 62.7 t.ha$^{-1}$

**Litchi**

India is the second largest producer of litchi after China in the world. In India it is cultivated in about 77000 ha and production is about 497000 t of which the largest area and production is from Bihar. About 50 varieties of litchi are grown in India of which Shahi, China, Bombai, Rose Scented, Muzaffarpur etc. are grown commercially.

**Pomegranate**

Ganesh, Bhagwa, Jyotl, G-137, Ruby are the important varieties developed in India. Year-round availability of pomegranate in Maharashtra and Tamil Nadu is possible due to its suitable agro-climatic condition and improved production technologies and Tamil Nadu has the highest productivity of 31.3 t.ha$^{-1}$

Table 1: Area, production, productivity and major producing states of important tropical and subtropical fruits in India.

<table>
<thead>
<tr>
<th>Fruit</th>
<th>Area (000 ha)</th>
<th>Production (000 t)</th>
<th>Productivity (t.h$^{-1}$)</th>
<th>Major producing states</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banana</td>
<td>776.0</td>
<td>26509.0</td>
<td>34.20</td>
<td>Tamil Nadu (19.4%), Gujarat (17.1%), Maharashtra (13.6%), Andhra Pradesh (12.2%), Karnataka (9.5%).</td>
</tr>
<tr>
<td>Mango</td>
<td>2500.0</td>
<td>18002.0</td>
<td>7.20</td>
<td>Andhra Pradesh (24.5%), Uttar Pradesh (24.4%), Karnataka (10%), Bihar (7.6%).</td>
</tr>
<tr>
<td>Citrus</td>
<td>1042.0</td>
<td>10090.0</td>
<td>9.70</td>
<td>Andhra Pradesh (37.7%), Madhya Pradesh (11.8%), Punjab (10%), Maharashtra (8.5%).</td>
</tr>
<tr>
<td>Papaya</td>
<td>132.0</td>
<td>5382.0</td>
<td>40.70</td>
<td>Andhra Pradesh (30.7%), Gujarat (22.1%), Karnataka (8.6%), Madhya Pradesh (7.7%).</td>
</tr>
<tr>
<td>Guava</td>
<td>236.0</td>
<td>3198.0</td>
<td>13.60</td>
<td>Madhya Pradesh (25.0%), Maharashtra (9.5%), Uttar Pradesh (9.1%), Bihar (9.1%).</td>
</tr>
<tr>
<td>Pineapple</td>
<td>105.0</td>
<td>1571.0</td>
<td>14.90</td>
<td>West Bengal (19.7%), Assam (17.1%), Karnataka (10.8%), Tripura (10.5%).</td>
</tr>
<tr>
<td>Pomegranate</td>
<td>113.2</td>
<td>754.0</td>
<td>6.60</td>
<td>Maharashtra (54.8%), Karnataka (20.2%), Gujarat (10.6%).</td>
</tr>
<tr>
<td>Litchi</td>
<td>77.8</td>
<td>497.3</td>
<td>6.4</td>
<td>Bihar (45.6%), West Bengal (17.1%), Jharkhand (7.2%).</td>
</tr>
</tbody>
</table>

References
