Tropical Fruits and Nuts

Immense diversity
Potential for economic development

Reading
• See Home page under References
• The CIAT Tropical Fruits Program
  – James Cock

Immense Diversity
• Americas
  – 100 commonly found in markets
  – More than 1,000
• Southeast Asia
  – About 500
• Indian Subcontinent
  – 300 species
• Africa
  – 1,200 edible fruits

A Few Species Dominate the Market
• 89% of the market
  – Citrus
  – Bananas and plantains
  – Mangos
  – Pineapple
• 5% of the market
  – Papayas
  – Avocados
  – Dates

Other 6% of the Market
• Breadfruit
• Carambola
• Cherimoya
• Custard apple
• Durian
• Feijoa
• Guava
• Hog plum
• Mamey colorado
• Sapodilla
• Star apple
• Mombin
• Jackfruit
• Longan
• Mammee
• Mangosteen
• Naranjilla
• Passion fruit
• Rambutan
• Sapote
• Cainsito
• Tree tomato

Production of Major Tropical Fruit Crops

Mainly citrus, bananas, plantains, mangos, and pineapples
Trends

• Production of tropical fruits is increasing
• Variety of tropical fruits available in produce markets of temperate regions is increasing
• Per capita consumption in world has increased 1/3 over 20 years
  – Increased awareness of health benefits
  – Increased demand for exotic fruits in temperate regions

Tropical Fruit Production

• Most (96%) consumed locally
• Most are highly perishable
• Rapid increase in consumption of processed fruit
  – Juices
  – Flavored milk products
  – Frozen pulp

Tropical Fruit Production

• Labor intensive
• High value crops
  – Average value per ton of $870
  – Average yield per ha of 10 tons
  – Potential value of almost $9,000
  – Compare with 2 crops of rice or maize with a value of $2,000 per ha

Tropical Fruit Production

• Perennial Crops
  – Adaptable to sustainable management systems in hilly ecosystems
• Potential for facilitating rural economic development

Fruit Production

• Major Tropical Fruits and Nuts (excluding citrus)
  – Bananas and Plantains
  – Pineapple
  – Mango
  – Papayas
  – Avocado
  – Cashew
• Many Minor Fruit and Nut Crops

Crop Production (1000s mt)

<table>
<thead>
<tr>
<th>Crop</th>
<th>Production (1000s mt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banana</td>
<td>72,167</td>
</tr>
<tr>
<td>Plantains</td>
<td>25,309</td>
</tr>
<tr>
<td>Pineapple</td>
<td>15,422</td>
</tr>
<tr>
<td>Mangoes</td>
<td>28,730</td>
</tr>
<tr>
<td>Papaya</td>
<td>5,878</td>
</tr>
<tr>
<td>Avocado</td>
<td>2,455</td>
</tr>
</tbody>
</table>

FAOSTAT database, 2000-2002

Tropical Horticulture - Texas A&M University
### Temperate Fruit Production

<table>
<thead>
<tr>
<th>Crop</th>
<th>Production (1000s mt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grape</td>
<td>62,000</td>
</tr>
<tr>
<td>Apple</td>
<td>58,000</td>
</tr>
<tr>
<td>Pear</td>
<td>16,860</td>
</tr>
<tr>
<td>Peach</td>
<td>13,496</td>
</tr>
<tr>
<td>Plum</td>
<td>9,227</td>
</tr>
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FAOSTAT database, 2000-2002

### Nut Production

<table>
<thead>
<tr>
<th>Crop</th>
<th>Production (1000s mt)</th>
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<tbody>
<tr>
<td>Almond</td>
<td>1,841</td>
</tr>
<tr>
<td>Walnut</td>
<td>1,365</td>
</tr>
<tr>
<td>Brazil nut</td>
<td>53</td>
</tr>
<tr>
<td>Cashews</td>
<td>23</td>
</tr>
</tbody>
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### Question

What are the main crops produced in temperate regions?

- Grape
- Apple
- Pear
- Peach
- Plum

What are the main nuts produced globally?

- Almond
- Walnut
- Brazil nut
- Cashews

What are the main crops produced in the temperate fruit production?

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