THE DEVELOPMENT OF THE TROPICAL AND SUBTROPICAL FRUIT SECTOR IN KINGDOM OF SAUDI ARABIA (1981-2016)

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Development of the Horticulture Sector in Kingdom of Saudi Arabia

- Started and progressed through the Technical Cooperation Programme
- The Technical Cooperation between FAO and the Ministry of Agriculture began as early as 1950
- The major thrust of development started with the Unilateral Trust Fund Agreements (UTFA) since 1981
- The UTFA is continuously renewed every 5 years up to the current one (2011-2016) (includes 16 development projects, USD 67 million)
- The Horticulture and Technology Transfer Project (USD 4,514,508)
Success Stories Through the Technical Cooperation Programme (1981-2016)

Within the Horticulture Sector, properly functional research and specialized centres have been developed:

- Najran Horticulture Research Center (citrus)
- Jazan Agriculture Research Center (tropical fruits)
- The National Date Palm Research Center
- The Olive Research Unit at Al Jouf
- Ulaa Citrus Propagation Centre
- Integrated Farm Systems and Extension Centres (Eastern Region, Central Region, Northern Region, Southern Region)…(date palm, citrus, grapes, mango, pitaya, pineapple, figs, olive)
- Pilot Extension Farms (Ulaa, Baha) (citrus, grapes, pomegranate)
Involved GCC Countries
<table>
<thead>
<tr>
<th></th>
<th>Area (Ha)</th>
<th>Production (MT)</th>
<th>Tree Population (No.)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mango</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAUDI ARABIA</td>
<td>5,130</td>
<td>125,000</td>
<td>600,000</td>
</tr>
<tr>
<td>OMAN</td>
<td>1,072</td>
<td>10,199</td>
<td>-</td>
</tr>
<tr>
<td>UAE</td>
<td>972</td>
<td>4,200</td>
<td>120,000</td>
</tr>
<tr>
<td><strong>Papaya</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAUDI ARABIA</td>
<td>-</td>
<td>6,314</td>
<td>210,470</td>
</tr>
<tr>
<td>OMAN</td>
<td>104</td>
<td>1,760</td>
<td>-</td>
</tr>
<tr>
<td><strong>Banana</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oman</td>
<td>4,374</td>
<td>56,794</td>
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</table>
Trade and Food Commodities

- In GCC countries domestic production of fruits generally accounts for only 25.5% of total domestic demands.
- Saudi Arabia currently meets 35% - 46.8% of its overall domestic demand for fruits.
Fruit Imports

Saudi Arabia (2011-2012):
- Mango (3.9%) of sharing global imports
- Mango (62,279 MT) (Yemen: 59.29%, Pakistan: 20.28%, India: 9.61%, Egypt: 4.21%, and Kenya: 3.94%)
- Banana (306,173 MT)

UAE (2011-2012):
- Mango (5.2%) of sharing global imports
TECHNICAL COOPERATION PROGRAMME 2011 – 2016

Sub-programme: Sustainable Agriculture Production and Good Agriculture Practices (GAP)

- Establishment of an International Date Palm Center
- Development of Olive Production and Processing Techniques
- Development and Technology transfer of the Horticulture Sector in KSA
- Support of Sustainable Rural Development Programme
Najran Horticulture Research Centre
Propagation Nurseries
More than 1,823,250 disease free grafted citrus trees were distributed to farmers since 2007
A new nursery with a capacity of 250,000 grafted citrus trees per year
Citrus Gene banks
125 citrus cultivars were introduced and considered one of the largest in the middle east and the largest in the Gulf States
Research and Production Technologies

Organic manure application
Capacity Building

• Study tours to train Saudi Nationals were conducted to more than 15 countries worldwide, located in Europe, USA, South East Asia, Middle East and North Africa.
• More than 3000 researchers, agricultural engineers and farmers were trained since 2007.
Agricultural Research Center in Jazan
- JARC established 1972 (Field crops)
- JARC tropical fruits.... 1982
- Emphasis.....on mango
Mango Gene Bank
It includes 50 mango cultivars introduced worldwide
الصنف: مليكاً
تاريخ الزراعة: 2008
المصدر: الهند

Mallilka / مليكاً
تاريخ الزراعة: 2008
المصدر: الهند
<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
<th>Cultivars</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982</td>
<td>11</td>
<td>Tommi Atkin, Palmer, Julie, Zell, Kent, Haden, Keitt, Sabrie, Apple, Borebo, Kitshener</td>
</tr>
<tr>
<td>1983</td>
<td>5</td>
<td>Glenn, Van Dyke, Najwa, Otto, Sensation</td>
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<tr>
<td>1984</td>
<td>12</td>
<td>Hindi Khass, Parie, Bulk Heart, Zibda, Vajr Klein, Hindi Bosennara, Golluk, Awaise, Yemenia, Karabau, Neilum, Taymour</td>
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<tr>
<td>1989</td>
<td>4</td>
<td>Kingston, Onno, Florigen, Nam Dog My</td>
</tr>
<tr>
<td>2007</td>
<td>8</td>
<td>13-1, Turpentine, Kaisar, Benshan, Royal Special, Malika, Valencia Bright, Langra</td>
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<tr>
<td>2010</td>
<td>7</td>
<td>Kubania, Goose Neck, Dibsha, Mabruka, Aromanis, Sukarie, Naoumi</td>
</tr>
<tr>
<td>2011</td>
<td>3</td>
<td>Vazlie, Kazalla, Imperial</td>
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</table>
Other tropical fruits

- Pineapple (Perola, Jupi, Hawaii, Red Spanish)
- Guava (FAO, Jazan)
- Figs (Brown Turkey, Local, Mailly)
- Cashew
- Carambola
- Sapote
- Annona
- Papaya (Solo, Somali, Jordanian)
Research and Production Technologies
Research on production aspects particularly flowering and fruit set and adaptability of rootstocks to environmental stresses are major in addition to harvest and post harvest.
Major Constraints/ Challenges

- Restricted water resources
- Increasing soil salinity
- Lack of proper rootstocks to reduce salinity hazards
- Limited knowledge of appropriate harvest and post-harvest techniques
- Pests and diseases (Fruit fly and mango die back)
- Limited research on good agricultural practices
- Lack of sufficient qualified national staff
The Way Forward

- Regional cooperation to address jointly the major common problems and share experience
- Promote South-South cooperation and develop joint projects that address the common major problems
- Liaise with regional and international organizations for potential support to address common problems
- Explore potential fruit crops that tolerate the existing environmental conditions and of added value to fruit growers
- Exchange of relevant genetic resources
THANK YOU