



**TECHNICAL COOPERATION PROGRAMME  
BETWEEN THE MINISTRY OF AGRICULTURE  
AND THE FOOD AND AGRICULTURE ORGANIZATION  
OF THE UNITED NATIONS**

**IMPACT AND DEVELOPMENT OF THE  
MAJOR TROPICAL FRUITS  
IN THE RURAL AREAS OF KINGDOM OF  
SAUDI ARABIA**

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# Kingdom of Saudi Arabia:

80% of Arabian Peninsula, Arable land: 52.684 million hectare; 4.19 million hectares currently cultivated



# Area, Production and Tree Population

	Area (Ha)	Production (MT)	Tree Population (No.)
<b>Mango</b>	<b>6,350</b>	<b>32,000</b>	<b>830,000</b>
<b>Citrus</b>	<b>13,015</b>	<b>105,000</b>	<b>-</b>
<b>Dates</b>	<b>155,000</b>	<b>23,000,000</b>	<b>23,000,000</b>
<b>Figs</b>	<b>2,857</b>	<b>4,571</b>	<b>31,960</b>
<b>Guava</b>	<b>-</b>	<b>3,212</b>	<b>35,690</b>
<b>Papaya</b>	<b>-</b>	<b>2,350</b>	<b>25,360</b>

# IMPORTS AND SELF SUFFICIENCY

## Imports:

**Mango, guava, mangosteens (fresh/dried)**

<u>2011</u>	<u>2013</u>
<b>63,497 MT</b>	<b>57,857 MT</b>
<b>51,260,000 USD</b>	<b>49,090,000 USD</b>

## Self Sufficiency:

- **Vegetables ..... 86.9%**
- **Dates..... 100%**
- **Grapes..... 79.1%**
- **Citrus..... 18.2%**
- **All other fruits..... 31.1%**

# **Development of Major Tropical Fruits 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) (Tropical fruits, Citrus and Grapes)**

# **Leading Tropical and Subtropical Fruits Research Centres**

- Jazan Agricultural Research Centre (Tropical Fruits)**
- Najran Horticulture Research Centre (Citrus and Tropical Fruits)**





# Najran Horticulture Research Centre





# Agricultural Research Center in Jazan





# Development Approach

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- **Introduction and improvement of genebanks**
- **Capacity development**
- **Generation of technologies**
- **Development and strengthening of infrastructure**
- **Technology transfer**



# Citrus Gene banks

Includes 125 citrus cultivars (74 cultivars field experimented and adopted by growers)





# Mango gene bank:

## Includes 52 mango cultivars





الصنف : مليكا / Mallilka

تاريخ الزراعة : 2008

المصدر : الهند

الصنف : ( لا تقرأ )  
تاريخ الزراعة : 2008  
المصدر : الهند







# Mango introductions

Year	Number	Cultivars
1982	11	Tommi Atkin, Palmer, Julie, Zell, Kent, Haden, Keitt, Sabrie, Apple, Borebo, Kitchener
1983	5	Glenn, Van Dyke, Najwa, Otto, Sensation
1984	12	Hindi Khass, Parie, Bulk Heart, Zibda, Vajr Klein, Hindi Bosennara, Golluk, Awaise, Yemenia, Karabau, Neilum, Taymour
1989	4	Kingston, Onno, Florigen, Nam Dog My
2007	8	13-1, Turpentine, Kaisar, Benshan, Royal Special, Malika, Valencia Bright, Langra
2010	7	Kubania, Goose Neck, Dibsha, Mabruka, Aromanis, Sukarie, Naoumi
2011	3	Vazlie, Kazalla, Imperial





## **Other introduced fruits (1982-2014)**

- **Pineapple (Perola, Jupi, Hawaii, Red Spanish)**
- **Guava (FAO, Jazan)**
- **Figs (Brown Turkey, Local, Mailly)**
- **Cashew**
- **Carambola**
- **Sapote**
- **Annona**
- **Papaya (Solo, Somali, Jordanian)**
- **Pitaya**

# Capacity development and technology transfer

















# Generation of technologies













# Development and strengthening of infrastructure





**Soil and water control**



**Environmental Stress and Physiology**



**Production and Quality control**

**Protection and micropropagation**





# Tropical fruit development: Results

















# Major constraints

- Irrigation water scarcity
- Increasing soil salinity





# THANK YOU

