World Vegetable Center

Development Action Plan(DAP)

Module 2: Harvest to Table
36th IVTC
(6 November- 1 December 2017)

KASETSART UNIVERSITY, KAMPHAENG SAEN CAMPUS,

THAILAND

World Vegetable Center

Introduction

- Name: Basim Bashir Bait Abaidoun.
- Vegetable researcher.
- Directorate General of Agriculture & Livestock Research. (Department of Agricultural and Animal Research). Agriculture research station – Salalah(south of Oman).

Education background

- BSc Plant Science (Sultan Qaboos University) – Oman.
- MSc Organic Farming System (Newcastle University) – UK.

World Vegetable Center

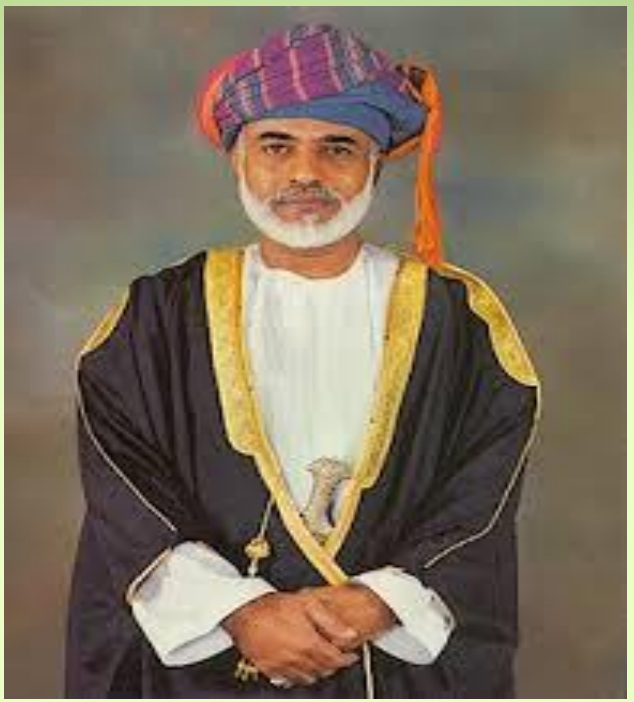
Main Responsibilities

- Evaluate and screening of new verities of vegetable crops under Salalah condition.
- Introduce of new technologies for high yield production (hydroponic system).
- Contribute to the development of research programs to increase the productivity of vegetable crops under climatic conditions.
- Cooperate with agricultural extension department to solve farmers' problems.

World Vegetable Center

Sultanate of Oman

World Vegetable Center



His majesty sultan qaboos

World Vegetable Center

- Country in Southwest Asia.
- Capital: Muscat.
- Population: 4.345 million according to 2014 estimates.
- Total area of about 309,500 sq. km.
  - Mountains: 16%.
  - Deserts: 81%.
  - Coastal plains: 3%.
- The average annual rainfall : 100 mm.
  - Dhofar region (south of Oman) where there is monsoon rainfall (200-250 mm) during *kharif* (July- September) period.

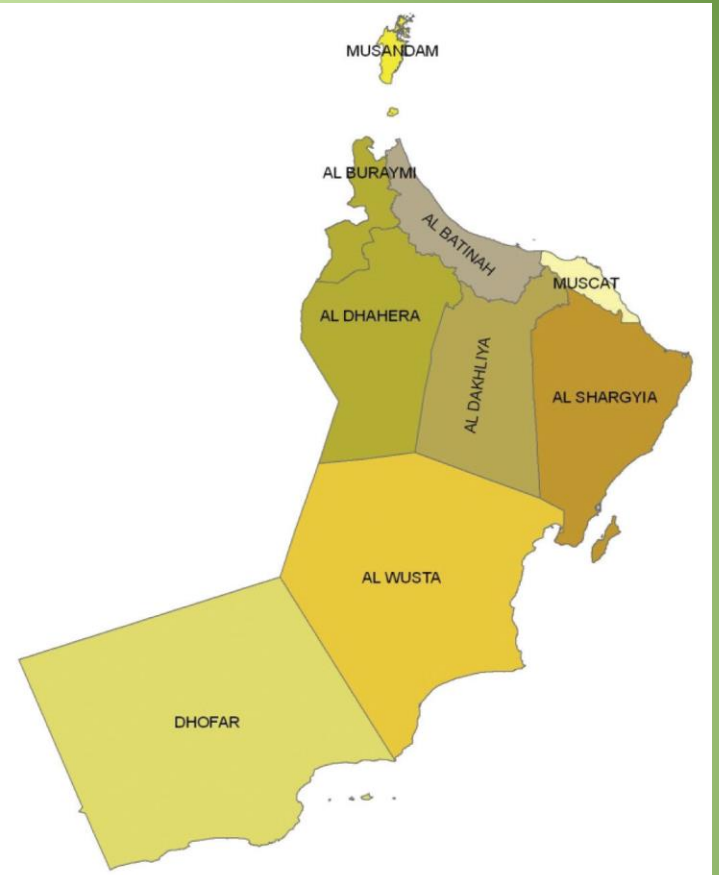
- Official Language: Arabic language.
- Religion: Islam.
- Weather: Hot and humid in summer and moderate in winter.

World Vegetable Center

Oman has more than 2.3 million hectares of arable land .The total cultivated area is about 73,670 hectares (MoA, 2009) of which 60% is located in the coastal areas (MAF, 2009a).

Area of different groups of crops in Oman (MAF, 2009)

crops	Area (ha)
Fruit Crops	37082.77
Perennial f	16230.67
Field Crops	14171.85
Vegetables	6185.71
Total	73671



Geographical Regions of Oman

World Vegetable Center

Directorate General of Agriculture & Livestock Research(Oman)

Established in March 2006

World Vegetable Center

Organization and Structure

1. Plant Production Research Center - Fruit Research Lab - Vegetable Research Lab - Field crops Research Lab - Seed and Plant Genetic Resources Research Lab	**2. Plant Protection Research Center** - Plant Pathology Research Lab - Entomology Research Lab - Biological Control Research Lab - Toxicology Research Lab - Honey bee Research Lab	**3 .Soil Research Center** - Soil Research Lab - Bio-saline Research Lab - Irrigation Research Lab
4. Date palm Research Center - Date palm Production and Genetic Resources Research Lab - Tissue culture and Biotechnology Research Lab - Date palm Horticulture Research Lab - Food Processing Research Lab	**5. Livestock Production Research Center** - Goats and Sheep Research Lab - Poultry Research Lab - Cows Research Lab - Artificial Insemination Research Lab - Livestock Feeding Research Lab	**6. The Veterinary Health Research Center** - Virology Lab - Bacteriology Lab - Parasitological Diseases Lab - Biochemistry and Toxicology Lab - Pathology Lab **Status**

Includes 126 Omani Researchers and about 460 personnel in the administrative section.

World Vegetable Center

Three topics in module 2 that I found most useful.

- **Packaging:** package design , materials.
- **Cooling:** room cooling, forced air cooling, hydro cooling. and ice cooling.
- **Rooftop organic gardening.**

World Vegetable Center

Action plan topic

pesticides residue in fruits & vegetables

World Vegetable Center

Pesticides are chemical compounds that are used to kill pests, including insects, rodents, fungi and unwanted plants (weeds).In the other hands pesticides are potentially toxic to other organisms, including humans.

World Vegetable Center

Problem: High residue levels of pesticides found in some fruits and vegetables in Oman.

Objective of this study

- Reduce the use of pesticides.
- Awareness from extensive use of pesticides.
- Determination of vegetables and fruits with residues of pesticides and their sources of entry.

World Vegetable Center

Inputs:

- Budget.
- Stuff.
- Farmers.
- Experts people.
- Construction.
- Materials.

World Vegetable Center

Activities:

- Determine the target locations.
  - Border gates, airports, sea ports, farms, central markets fruits and vegetables shops.
- Training of the agricultural extension agents.
- Develop of training materials (Pesticide Residue Test Kit).
- Farmers training in Optimal use of pesticides (how and when).
- Workshops.
- Field work.

Duration: At least 1 year.

World Vegetable Center

Budget

Details	Cost ($)
Contract Worker	320,000
Travel & Transportation	200,000
Materials	120,000
Construction	1000000
Modifications& repair	40,000
Total	1,680,000

World Vegetable Center

Benefits / outcomes

- Awareness about the extensive use of pesticides.
- Change of control methods for pests & diseases.
- Actual use of knowledge about nutrition and health.
- Ensure that agricultural products containing a high percentage of pesticides are not entered.

Impact

- Improve health.
- Increase income.
- Improve social status.

World Vegetable Center

Solutions:

- Establishment of controlled collecting centers for fruit and vegetables.
- Establish of packing and packaging houses.
- Establish of toxicology laboratories.

World Vegetable Center

Challenges

- Budget.
- Most of the farmers are foreigners.

THANK YOU