

Send to: info@tki-agrifood.nl; willie.vandenbroek@wur.nl

TITLE **Israel-Palestine Authority-Egypt: Dates value chain development**

Project leader: Prof. dr. H. Wichers, Food and Biobased Research, Wageningen UR

Requested budget: 35k euro

Countries: Palestinian Authority, Israel, UAE, Egypt

Contact Topsector: Willie van den Broek

Applicant:	Organization	Telephone No.	Email address
Jan Hak, chairman	NAFTC, Netherlands Agri, Food & Technology Association	+31183406039	j.hak@hak-partners.nl

1 Motivation and project aims

1.1 Knowledge requirements for the target group

The project 'Israel-Palestine Authority-UAE-Egypt: Dates value chain development' is targeted to improve post-harvest control and post-harvest handling of date fruits to improve the intrinsic quality for the consumer. The project will generate information by bringing together date producers, shipping agents, whole food markets and food producers to improve date fruit quality to develop new opportunities for both local and international markets. The project will also identify options for quality standards and will give data on storage, health status and physiological conditions to enhance various consumer quality attributes. Information will also be used to suggest added value products based on date fruit components.

1.2 Definition of the problem

Dates (*Phoenix spp.*) are a potential important component of a healthy food pattern, as the fruits contain considerable amounts of n-3 polyunsaturated fatty acids, fibers and polyphenols and may help in reducing the symptoms, incidence and prevalence of type 2 diabetes and elevated cholesterol levels. There is considerable variation in date varieties, with respect to appearance, taste, flavor etc. The Palestinian Authority, Egypt, UAE and Israel produce about 23 varieties (e.g. Deglet Nour, Kenta, Alligh, Kouat Alligh, Sayer, Zahedi, Mozafati, Medjool, Hayani, Bahri) that differ in many characteristics for quality, health status, bioactive compounds, storage behavior etc. This biodiversity is an important potential source for improving the production and logistic chain, but needs to be explored and exploited. For a dates value chain development, there are many market opportunities: **Fresh date fruits:** vegetable, direct consumption, high-value market, targeted consumer groups (ethnic Arabic origin), **Dried date fruits:** whole food chain, home cooking market, processing, **Processed date (paste) products:** bread

product, muesli, health bar, **Date syrup**: natural sweetener, organic, gluten free, **Date seed products**: natural flavors, health market, natural additive. Especially date seeds products and date syrup could be interested alternative, new products that generate added value chains that could be most beneficial for the Jordan Valley (Israel & PA), UAE (United Arab Emirates) and the Nile Delta region in Egypt. A consortium of local entrepreneurs and knowledge institutes ask for Dutch expertise in processing, handling, automation and trade to modernize the dates sector in this region. A good model could provide opportunities in other regions of the aforementioned countries, and secondly, new healthy dates concepts allows new models for Dutch retailers and traders.

1.3 Aim(s) of the project

The project aims to improve the post-harvest handling, logistics, storage and consumer information on date fruits. It will analyze:

- 1) the present situation of date varieties (market value, market volume, quality characteristics) produced in The Palestinian Authority, Egypt, UAE and Israel,
- 2) the logistics, post-harvest and handling and
- 3) preferences of the European consumer.
- 4) This information will open ways to create new chain concepts for date fruits and will open new logistic avenues.

1.4 Target groups:

Main target groups are 1) date producers in The Palestinian Authority, UAE, Egypt and Israel, 2) logistic date handlers in the Netherlands and 3) supermarkets and whole food producers in Europe.

1.5 Economic context:

Date production is a world agricultural industry, producing about 5.4 million metric tons (Mt) of fruit. The date fruit, which is produced largely in the hot arid regions of South West Asia and North Africa, is marketed all over the world as a high-value confectionery and fruit crop and remains an extremely important subsistence crop in most of the desert regions. The world production of dates has increased from about 1.8 million tons in 1961 to 2.8 million in 1985 and 5.4 million in 2001. The annual increase is about 5 percent. Trade figures indicate that about 93 percent of the date harvest is consumed locally and that, by far, the majority of these palms are not of the well-known export varieties. It is only in recent years that the date palm has been introduced as modern plantations in USA, Israel and in the southern hemisphere. The top five date producing countries are Egypt, Iran, Saudi Arabia Pakistan and Iraq, accounting for about 69 percent of total production. If the next five most important countries are included, i.e. Algeria, United Arab Emirates, Sudan, Oman and Morocco, then this percentage rises to 90 percent. This clearly indicates that most of the world's date production is concentrated in a few countries in the same region.

1.6 Economic Opportunities:

The date industry is not yet fully developed and concerted efforts are still needed to fully utilize the tremendous potential of date substances as ingredients in processed foods for export and the local market. Date pectin, dietary fiber and syrup are some of the date substances which can find a plethora of applications as a thickener or gelling agent in processed foods, i.e., confectionery products, jams, table jellies, soft cheeses, yoghurts, etc. But date products such as these do not yet reach the European market. Improvement of the information on date varieties, introduction of innovative concepts for local logistics, post-harvest and handling and better tuning with the preferences of the European consumer will create attractive economic opportunities.

1.7 Economic Threats:

The main economic threat is the vulnerable political situation in the countries involved.

1.8 Desired expertise DLO:

- Consumer trends and behavior.
- Survey of market chain opportunities
- Post-harvest cold chain technologies
- Processing and packaging technologies.

1.9 Expected results:

The present study will generate the base for an additional work plan to bring the chain partners together in one concept.

2 Work plan

2.1 Approach

For this project it is important to restrict the activities to concrete value chain opportunities. Therefore, the following activities are proposed:

Market quick scan: analyze market types for fresh and processed dates: B-to-B and B-to-C, market value, market volume, quality characteristics. A desk survey is conducted on consumer preferences and expenditure on healthy dates.

Storage: what type of (energy-driven) storage is present close to processing companies, large production areas, distribution centers: actual large scale storage should be summarized, including location. What's the energy use, what energy is used, energy costs. What is the storage capacity for what kind of dates varieties.

Processing: analyze local options and opportunities (paste and convenience), but also survey local dates waste processing, analyze current practice for disease control, give alternatives for processing steps.

Alternative products: analyze current status and opportunities for date syrup, date paste and date seed products for alternative markets.

Logistics: survey current logistic operations, analyses of main logistic chain components.

2.2 Time schedule

The strategy is to conduct the general survey before summer to allow a detailed study on health aspects in a public private partnership with Technion Institute and PA agricultural institute. The final business plan is scheduled for October.

2.3 Outputs

- Business plan for 2-3 dates product categories (fresh, processed (paste and syrup) and convenience)
- SWOT for health opportunities
- MoU of the consortium partners

2.4 Dissemination to target groups

Setup cooperation with Technion Research Institute in Israel

Setup cooperation with PA Agricultural Research Institute

Setup cooperation with HEIA-Egypt Training institute

3 Project organisation

3.1 Project team (Wageningen UR)

Name	Organisation	Role	Email address	Telephone No.
Prof. Harry Wichers	WUR-FBR	Project Leader		0317-480175
Jan Broeze	WUR-FBR	Value Chain opportunities	Jan.broeze@wur.nl	0317-480147
Han Soethoudt	WUR-FBR	Market & logistics	Han.soethoudt@wur.nl	0317-480169
Raoul Bino	WUR-FBR	Biochemistry	Raoul.bino@wur.nl	0317-482657

3.2 Involved parties (besides Wageningen UR)

Name	Organisation	Role	Email address	Telephone No.
Dutch SME's				
Saleh Bahary	Interesba	Trade & advisory Services	Saleh@interesba.eu	+31183406039
Jan Hak	Hak & Partners	Equipment & systems	j.hak@hak-partners.nl	+31183403399
Milko Vaassen	Aweta	Grading & packing		+31703192132
John Tsoutsanis	Geerlofs	Conditioning systems	jtsoutsanis@geerlofs.com	+3188668800
Willem-Jan Hak	Q solution	Harvesting systems	wj.hak@hak-partners.nl	+31628287828
Ate Oostra	MFS	Association for sector	oostra-consult@hetnet.nl	+31703821232
Johan van der Riet	Agriplan	TK development	jvdriet@agriplan.nl	+31183406060
Frank Levarht	Levarht	Trading & distribution	FBLevarht@levarht.nl	+31297386600
Local Partners Israel				
Micha Kesteger	Hadiklaim	Conditioning, packing & trading		
Zvi Herman	MFS Israel	Association	herman@L.R-group.com	+97299612000
Ofer Sachs	Israel Export Institute	Promotion		
Local Partners PA				
Mazen Sinokrot	Sinokrot	Conditioning, trading	ceo@sinokrot.com	+97222955701
Mohammed Khader	Lausanne trading	Logistics & trading	info@lausanne.ps	+97222900568
Mr Nakheel	Nakheel trading	Conditioning & packing		
Mazen Sunokrot	PA AFT Group	Association & representation		

Local Partner Egypt/UAE

Iman Kamel	HEJA	Research & promotion
Mohamed Khaldoun	Barari Group	Contracting, Processing & Trading

Supporting Parties

Prof. Michael Aviram		Technion	
Mehmet Cevikoglu	Dutch Agri Counselor Israel	Government Representation	Ank-lnv@minbuza.nl
Ofer Sachs	Israel Export Institute		
Joost Geijer	Dutch Agri Counselor Egypt	Government Representation	Joost.geijer@minbuza.nl

3.3 Monitoring and evaluation

The business consortium partner NAFTC (Netherlands Agri, Food & Technology Association) will co-assist the DLO-project leader to monitor and evaluate the intermediary results.

Dutch Government Representatives from Israel, Palestine Authority, UAE and Egypt will monitor the results from a local perspective.

4 Budget 2014

Financial source	Budget
1) Business planning:	
- Market and logistic study	12.000
- Value approach for processing opportunities	12.000
2) Quality and Health analysis	11.000
Total	35.000

5 Summary

A consortium of local entrepreneurs and knowledge institutes in the middle East (Israel, PA, Egypt) ask for Dutch expertise in processing, handling, automation and trade to modernize the dates sector in this region. A good model could provide opportunities in other regions of the aforementioned countries, and secondly, new healthy dates concepts allows new models for Dutch retailers and traders. The project aims to improve the post-harvest handling, logistics, storage and consumer information on date fruits. It will analyze 1) the present situation of date varieties (market value, market volume, quality characteristics) produced in The Palestinian Authority, UAE, Egypt and Israel, 2) the logistics, post-harvest and handling and 3) preferences of the European consumer. This information will open ways to create new chain concepts for date fruits and will open new logistic avenues.

The present study will generate the base for an additional business plan to bring the chain partners together in one concept and strengthening the local dates sector.

6 Project key words:

Dates, added value, value chain, Palestine, Israel, UAE, Egypt