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Inma Agribusiness Program

Iraq – A Strategy for Dates



Inma
AGRIBUSINESS PROGRAM

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1. Background

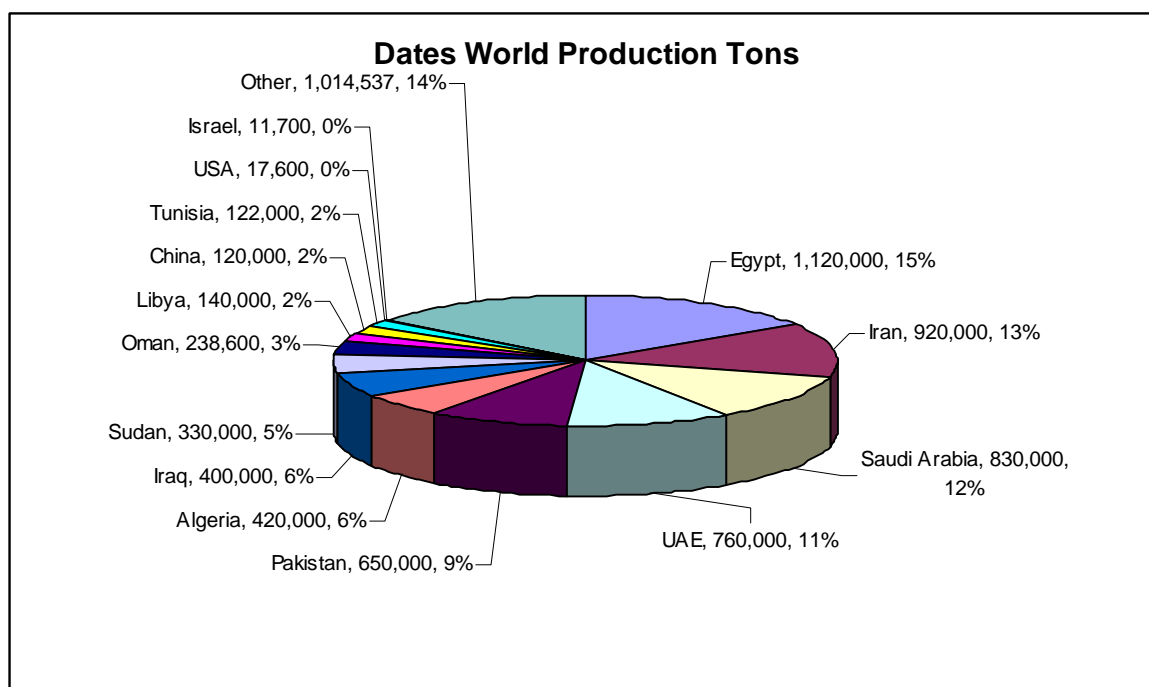
1.1 WORLDWIDE OUTLOOK

Worldwide date production has increased exponentially over the last three decades. Starting in 1965 at about 1.85 million tons, it reached 2.7 million tons in 1985 and 7.0 million tons in 2005.

The industry turning point occurred in the early 1980s, during, and immediately after the Iraq-Iran conflict. This conflict disrupted the worldwide date supply, creating shortages in the lucrative EU market and in the fast-growing Asian market.

The gap in supply and the consequent drastic rise in prices, prompted other countries, notably Saudi Arabia, Tunisia, Algeria, UAE, Pakistan and Israel, to invest heavily in expanding date palm cultivation to target the EU and Asian markets. Though Iran rejoined the global export market in the late 1980s, Iraqi date production continued to be affected by the boycott imposed after the 1991 invasion of Kuwait.

On the supply side, there appears to be no correlation between production and exports. Tunisia and Israel, for example, are two top exporters to the EU, despite producing less than 2% of the global date supply.



Source: COMTRADE 2006 – FAOSTAT - EUROSTAT

Leading importers of dates are Europe (highest market value), India (highest volume), UAE (although data seems inconsistent and 50,000/60,000 MT may be a more realistic import level) and other Asian countries such as Sri Lanka, Indonesia, Malaysia and Bangladesh.

Dates: Import Countries	Value \$ Million	Volume (000Tons)	Price/kg \$
EU	188,160	68,569	2.74
India	74,686	286,317	0.26
UAE* ¹	33,713	196,873	0.17
Turkey	8,864	10,821	0.82
Russia	10,684	20,263	0.53
USA	8,099	6,938	1.17
Canada	14,567	8,140	1.79
Australia	9,017	6,201	1.45
Syria	7,411	23,917	0.31

Source: COMTRADE 2006

1.2 IRAQ STATUS

Official statistics for the Iraqi production and consumption of dates are largely unreliable, faulty or nonexistent. Key players in the market estimate Iraq's 2006 production at some 420,000/450,000 MT of dates, with no more than 8-9 million fruiting palm trees. According to a 2005 FAO survey, Iran has the world's highest consumption of table dates at 7.8kg/per capita. *Inma* estimates some 120,000/150,000 MT of table dates are consumed in Iraqi households (roughly 6/7 kg per capita).

The widespread habit of growing date palms in residence courtyards limits the tradable quantity of dates in the market to possibly 60,000/80,000 MT. Most, if not all table dates in Iraq are consumed virtually unprocessed.

There is a consensus in the market that current production – harvested October-November 2007 – may be at a historic low of only 350,000 MT. This is partially because of palm diseases due to a lack of an Integrated Pest Management program (IPM), since traditional aerial spraying has virtually stopped.

Iraq Dates Usage (2006 Est.)	MT	%
Quantity wasted	60,000	14.3%
Household Consumption	120,000	28.5%
Export	50,000	11.9%
Industrial Usage	90,000	16.7%
Animal Feeding	100,000	35.7%
Total Production	420,000	100.0%

The consumption of table dates is unlikely to increase significantly in the near future and is actually declining throughout the MENA (Middle East + North Africa) area, with the exception of the month of Ramadan, when consumption increases significantly. Evidence from surveys

¹ Data available only up to 2005.

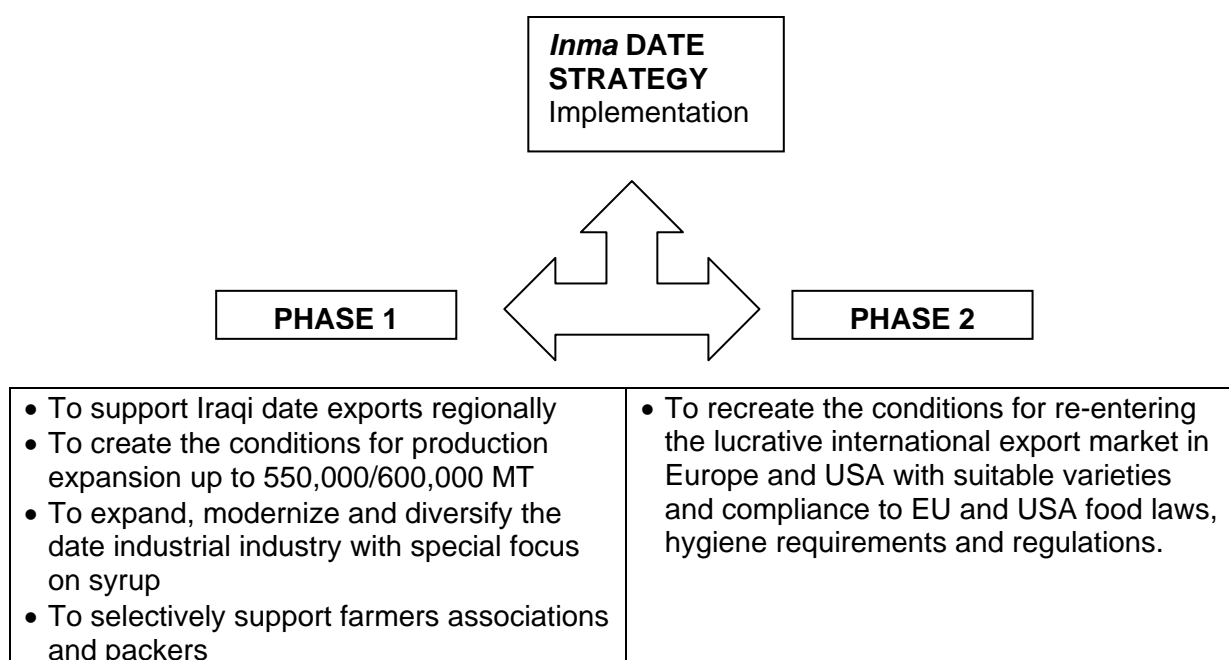
conducted in Iran and the Gulf area indicates that date consumption is much lower among the new generation.

Realistically, per capita consumption of table dates in Iraq seems to have limited margins of growth, therefore additional production – due to the introduction of manual pollination and IPM - must be absorbed by either exports or the industrial segment. *Inma* believes that there is a potential for expanding date production in Iraq by 150,000/200,000 MT to satisfy potential growing demand in the industrial segment (especially for syrup and “syrup extensions” processing line) and for regional export.

Annual consumption of date syrup, a popular Iraqi breakfast spread, is estimated at 50,000/60,000 MT. Due to the fact that many syrup plants are currently idle and because a lack of manufacturing capacity creates a supply constraint, actually consumption today may be as low as 30,000 MT. There is a potential for at least 100,000 tons if consumption follows the booming demographic trends in Iraq, trends which also indicate a reduction in the consumption of table dates. With more attractive packaging, snacks-sized single portions (for consumption out of the household), alternative usage (lollipops), etc., Iraq’s annual consumption could quickly reach 200,000 MT.

2. *Inma* Strategy

The outcome of *Inma*’s efforts will be revitalization of the Iraqi date processing industry, creating added value for the farmers and the processors. *Inma*’s main task is to operate simultaneously on both sides of the market – helping the supply side by increasing production by 150,000/200,000 MT – and by creating additional demand for syrup and table dates exports for the regional market. In order to achieve these goals, *Inma* proposes a 2-phase strategy:



	Selection, improvement and propagation of the identified varieties for table dates in Europe and for the industrial market.
Introduction and revitalization of a new Integrated Pest Management Program (IPM) alternative to aerial spray (e.g. injection System).	
Creation of a new Date Palm Research Center in collaboration with an American University (to be determined)	
Creation of the Iraqi Dates Development and Export Board (IDDE)	
Introduction among selected farmers and processors of EU (EurepGap) and USA relevant certifications.	
Development and implementation of an export plan targeting regional countries: UAE, India, Syria, Turkey and India.	To develop a complete market study with buyers in Europe and USA for industrial and table dates.
Implementation of selective manual pollination to increase yield/tree.	To develop a complete feasibility study for a processing plant in compliance with EU and USA requirements for exports.
To support the modernization or the new establishment of three to five new plants for dates syrup processing.	
To promote date syrup consumption through new packaging, snacks product-single portion, new usage in other industry (lollipops), new flavors.	
To selectively support packers introducing practices of “fair trade” contracting with small farmers.	

2.1 PHASE 1

Inma’s PHASE 1 strategy will include several simultaneous activities to improve production, processing and marketing of Iraq’s existing product:

PRODUCTION

To create the conditions for a production expansion of 150,000/200,000 MT, Inma strategy focuses on two pillars: the introduction of a new Integrated Pest Management Plan, and the selective adoption of manual pollination.

IPM: Inma recommends adopting the injection system in which chemicals are injected by drilling and piping through the trunk of the tree. A combination of insecticides *thiamethoxam* (@6g/palm) and *cyromazine* (@2.5g/palm), along with the fungicide *difenoconazole* (2.5ml/palm) is recommended.

Chemical applications have a total cost of \$1.6/tree for year 1 and \$0.8 for the following years:

Drilling, piping, injecting = \$0.8/tree (first year only)
 6g *Thiamethoxam* 25 WG = \$0.45
 2.5g *Cyromazine* 75 WP = \$0.20
 2.5ml *Difenoconazole* 250g/l \$0.15

Inma's goal is to support the IPM scheme for a minimum of 8 million trees during the life of this contract.

Manual Pollination: manual pollination is expensive. *Inma* estimates costs at about \$8.0/tree (\$2 for pollen + \$4 for Carbarayl +\$2 for labor). Nevertheless, manual pollination may well increase yields by 60/80kg/tree, easily offsetting the investment cost – even at a minimum additional revenue/tree of \$12.0. The adoption of manual pollination requires a minimum price close to \$200/MT.

Inma's objective is to select and support manual pollination of 2-3 million palms in 3 years.

Other Farm Level Improvements: Training on pruning, irrigation and plant nutrition management will also be delivered. Farmers will be encouraged to evaluate inter-cropping among date groves which affect pest infestation and competition for water resources. All production techniques that impact profitability will be considered and addressed.

PROCESSING

To expand, modernize and diversify industrial date processing with special focus on syrup, *Inma* will support improvements in date processing plants.

Inma estimates there could be an additional demand of 100,000/150,000 MT for date syrup if produced more efficiently and marketed in more attractive packaging and an innovative way (i.e. as peanut butter in USA or *Nutella* in Europe).

Inma's goal is to support the modernization or start-up of 3 to 5 regional plants with capacities of 5 ton/h (estimated cost \$4.5 million each). *Inma* wants to increase the number of small, localized syrup plants of syrup (with capacities of 500-1000 kg/hour). Regional production avoids the high cost of transporting whole product and costly, large volume plants are difficult to run and require very expensive, high capacity evaporators.

In parallel, new packaging and new consumer occasions for syrup will be explored such as:

- Flavored syrup (chocolate)
- Snacks (single usage packaging) to promote consumption out of the home
- Usage of syrup in the lollipop industry as the primary sweetener
- Modernized or new plants for syrup will be used medium term to process dates targeting European and US markets

MARKETING

To support Iraqi date exports regionally, *Inma* has identified markets in which there is demand for the types and quality of dates currently produced in Iraq.

A preliminary regional market analysis suggests Iraq could increase exports to Turkey (where it has only 3.9% market share), India (where it has no export), Syria (a growing market for dates) and could improve export prices (currently below the average) in all the exporting countries.

Country	Total Imports tons - 2006	Iraq Exports	Iraq Market Share	μ Import Price/kg	Iraq Export price/kg
UAE ²	196,870	124,000	63.0%	0.17	0.137
Syria	23,900	16,290	67.7%	0.31	0.189
Turkey	10,800	417,000	3.9%	0.82	0.290
India	286,300	-	-	0.26	-

Source: Comtrade 2006

Inma strategy is to support the creation of a private-sector driven Iraqi Dates Development and Export Board (IDDE) in order to develop a more coordinated export policy. *Inma* will fund short-term commercial information gathering through agents collaborating with the IDDE and located in all the potential export markets with the objective of prospecting buyers and market opportunities.

Finally, *Inma* will promote export oriented farmers' associations in order to recover value in the export chain, avoiding unnecessarily low prices dictated by lack of negotiating power and commercial intelligence in transactions with importers.

Efforts to improve the capacity, efficiency and profitability of all date products will be aggressively pursued. Studies and actions that cross product lines will be undertaken.

Inma believes that one key to success is to expand Iraq's already existing product line of date syrup and that changing the product concept on the international market is vital. Similar success stories for products such as Nutella in Italy and Europe, peanut butter in the USA and dulce de leite in Argentina point to marketing possibilities. Syrup must be turned into healthy modern spreads that can be consumed within the home and conveniently (single servings) away from home.

Product options might include adding chocolate flavor, vitamins, or packaging date syrup in conjunction with sesame butter, an Iraqi favorite breakfast spread combination. Sustainable growth in the date syrup industry involves changing the image, packaging and perception of the product. Other product options *Inma* will investigate include other spreadable options such as date preserves. Entering any new market, or introducing any new product will require serious marketing, including significant investment in sector campaign advertising.

To selectively support farmers associations and packers

The current highly unstructured market favors dealers and agents rather than farmers. Low prices for dates at farm gates often reflect a scenario of "desperate sellers". The *Inma* strategy is to selectively support packers willing to adopt "fair trade" contracting with farmers (especially small farmers).

Inma will also implement a better information system and promote forward contracts between farmers and processors or exporters.

² UAE data refer to 2005, data for the year 2006 are not yet available.

Inma CONTRIBUTION

1. Design and implementation of date palm restoration program:
 - Introduce injection system IPM; treat 8 million trees by end of program.
 - Fund manual pollination for selected 2-3 million/trees.
 - Design and implement a training plan on pollination, irrigation, pruning and plant nutrition.
2. Feasibility studies for 3-5 syrup plants with capacities of 5 tons/h
3. Marketing plan for developing syrup line extensions: new packaging, snacks, lollipops, new flavors
4. Market studies and recruitment of commercial agents in all the key regional export markets (UAE, Syria, India and Turkey). Support participation of the IDDE and farmers associations in International trade fairs

Support packers and exporters or processors in presence of practices of “fair trade” contracting with small farmers.

2.2 PHASE 2

MARKETING

To recreate the conditions for re-entering the lucrative international export market in Europe and USA.

Two distinct segments could be targeted by Iraq: table dates and industrial dates. *Deglet noor* and *Medjool* varieties are the preferred table dates, imported almost exclusively from Tunisia, Algeria and Israel; over the last two decades, these countries surpassed California for date exports. Table dates are premium price goods imported at an average \$2.75/kg.

Industrial dates, mainly used by the cereal industry (included in cereals, cereal bars, and muesli), concentrate mainly on the *Sayer* and *Zahedi* varieties, widely popular in Iran and to a lesser extent in Iraq and Pakistan. Current CIF price for industrial dates is \$805/MT. The estimated market size for industrial dates is 28,000MT/15,000 MT in EU+Turkey and some 13,000MT in USA, Canada and Australia.

The demand for industrial dates is growing 5.5% annually sustained by the positive trends of cereals and cereal snacks in western countries. On the contrary, consumption of table dates is basically stable or declining slightly in the EU. Worldwide supply of industrial dates is almost a monopoly of Iran (64%), followed by Pakistan and UAE and Algeria.

The EU and in particular, Southern Europe with Spain, Italy and France, is the only significant “value” importer of table dates (average 2006 CIF importing price was 2.74/kg). Contrary to widespread public perception in Iraq, USA is a relatively small importer of dates, in both quantity and value. (7,000MT in 2006 at a price of \$1.17/kg).

Attempts, mainly from Iran and Egypt, to challenge Tunisian, Algerian and Israeli positions have failed. In particular Iranians have targeted Italian, French and Spanish importers and

distributors since 1990 with no success, and have subsequently shifted their focus to “lower value” northern countries such as UK, Germany and Denmark, characterized by higher consumption and imports of “common dates” and dates for industrial consumption.

DATES IMPORTS EU	Import Value (1000 EURO)	%	Import Value (1000 EURO)	%	Import Qty (1000 kg)	%	Import Qty (1000 kg)	%	Avg. Price 2005	Avg. Price 2006
Years	2005	Market Share	2006	Market Share	2005	Market Share	2006	Market Share	€/kg	\$/kg
Algeria	12,358	10.6%	13,814	11.0%	9,314	13.5%	10,648	15.5%	1.30	1.95
Egypt	478	0.4%	457	0.4%	607	0.9%	555	0.8%	0.82	1.24
Iran	10,053	8.6%	11,063	8.8%	14,414	20.8%	15,261	22.3%	0.72	1.09
Iraq	56	0.0%	90	0.1%	59	0.1%	119	0.2%	0.76	1.14
Israel	27,281	23.3%	31,400	25.0%	6,361	9.2%	7,477	10.9%	4.20	6.30
Jordan	1,101	0.9%	1,485	1.2%	323	0.5%	267	0.4%	5.55	8.33
Pakistan	827	0.7%	832	0.7%	1,609	2.3%	1,329	1.9%	0.63	0.94
Saudi Arabia	943	0.8%	1,176	0.9%	976	1.4%	1,219	1.8%	0.96	1.45
Tunisia	56,770	48.5%	57,881	46.1%	33,163	47.9%	29,656	43.3%	1.95	2.93
United States	3,438	2.9%	3,547	2.8%	791	1.1%	737	1.1%	4.81	7.22
Total EXTRA-EUR	117,094	100.0%	125,440	100.0%	69,178	100.0%	68,569	100.0%	1.83	2.74

Source: COMTRADE 2006

In order to gain credibility and market access in the EU and USA, Iraqi dates and date handling will have to comply with food and hygiene laws and certification requirements in these nations. *Inma* recommends the introduction among selected farmers and processors of EU (EurepGap) and USA relevant certifications.

To improve international marketing opportunities and product quality, the creation of an Iraqi Dates Development and Export Board (IDDE) is highly recommended.

PRODUCTION

Iraqi date farmers must be encouraged to plant more of the types of dates that are marketable internationally. These include *Deglet noor* and *Medjool* varieties, the preferred table dates in Europe, and *Sayer* and *Zahedi*, the preferred varieties for industrial use in cereals, cereal bars, and muesli.

PROCESSING

Iraq will need extensive cold storage and fumigation facilities to enable date processors to keep up with production. While processors in other countries rent space in existing cold storage units, this option does not exist in Iraq.

Cooling, sorting and packaging facilities are required to compete with current exporters in Tunisia, Israel and Algeria (for table dates), and Iran and Pakistan for industrial dates.³

³ Tunisia, Algeria and more recently Israel have created powerful entry barriers to the Southern Europe export of dates based on integration with distributors/importers, varieties, marketing investments and – in the case of Tunisia preferential tariffs (no import tariff being 4.2% for most of the other countries and 7.7% for USA).

Inma Contribution

1. Creation and support in collaboration with an American university (to be determined) of Date Palm Research Center probably based in Basra with the responsibility of:
 - Increasing the date palm national resource base from 8 million to 10 million in 5 years
 - Increasing yields/tree by 25% in 3 years
 - Rehabilitating date palm groves through the introduction of a new IPM Program in alternative to aerial spray in 3 years
 - Introducing selective manual pollination
 - Improving propagation techniques, including gathering off-sets (vegetative reproduction) from desired varieties on commercial nurseries operated by private sector entrepreneurs and producer associations
 - Developing of a pollen bank
 - Improve date quality
 - Developing of training programs including propagation, water management, pruning, soil analysis, fertility, pollination and post-harvest processing
 - Improving harvesting techniques
2. Recruitment of independent certification company (Standard EurepGap) to spread among selected farmers the requirements in compliance to the Food and Hygiene in force in Europe and USA and to evaluate their impact on the production costs.
3. Conduct a full Marketing study among buyers in USA and Europe to assess potential for Iraqi export
4. Creation of a private sector-driven Iraqi Dates Development and Export Board (IDDE) to coordinate export strategic plan and policy
5. Development of state-of-the-art processing plants in synergy with syrup plants (see short term strategy)

3. Conclusions

The 1980s interruption of Iraqi date production, processing and marketing created an opening in the international market for high-end table dates that has been effectively filled by new suppliers. Over the past decades of Iraqi conflict and the collapse of prices for Iraqi dates and date products, date groves have been essentially neglected and processing plants have fallen into disrepair. Today, Iraqi farmers are producing only a fraction of what they could. Their harvest is not being marketed profitably, much of it ending up as livestock feed.

Inma's PHASE 1 will improve production by introducing manual pollination and the injection system of pest control management. Simultaneously during PHASE 1, *Inma* will evaluate and renovate existing plants that process date syrup, which could possibly manufacture date preserves or other products. Throughout this phase, *Inma* will assess the date/date product market and work toward increasing the demand.

As part of PHASE 2, *Inma* will expand pollination and pest control efforts to millions of palms throughout Iraq. *Inma* will also expand marketing efforts by seeking other uses for date syrup and on placing Iraqi table dates and date products into regional and international markets.

Upon completion of this project, Iraqi producers will be harvesting annually a minimum of 500,000 MT. Manual pollination of 3 million trees will have demonstrated to date farmers that increased yield per tree more than offsets the cost of the pollination effort. Eight million trees, IPM treated through trunk injection, will have shown grove owners the positive outcome of this process, convincing them to continue treating the trees on their own.

Farmers who once sold only to agents and brokers, will have more marketing opportunities, i.e. to date processors and expanded export opportunities to Syria, UAE, India and Turkey.

While international studies show table date consumption dropping, industrial use (input for muesli cereals, cereal bars, etc.) of dates is increasing and finding other uses for date syrup will invigorate that market for the Iraqi product. *Inma* believes that the most optimistic outlook for the Iraqi date industry points to date syrup rather than the export of table dates to the EU and US. Modern packaging coupled with an extensive sector advertising campaign will promote date syrup as a natural, healthy food product.