Government of Pakistan
Trade Development Authority of Pakistan

PAKISTAN DATES SECTOR
Production, Processing and Export Potential
- *An Analysis Report*

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Table of Contents

List of Tables

List of Figures

EXECUTIVE SUMMARY

Pakistan has blessed with such a climate which suits for date palm cultivation. Also, Pakistan has enormously large number of date palm varieties, many of which have the potential to be exported in both fresh and dried form. Pakistan is among the top dates producers and exporters of the world. Additionally, the date industry presents substantial opportunities for exports, income and employment generation in addition to economic growth and livelihoods for millions of rural smallholders of nation. Pakistan could fetch many more millions of dollars, if focus is given to production, processing, quality enhancement as per global standards, preservation, packaging, marketing and mainly in value addition such as the use of dates in preparing date paste, date syrup, date powder, date juice, date honey, date vinegar, date jams, beverage extract, sauces, pickles, desserts, confectionary items, bakery items and liquid/powder sugar etc.

In order to address the challenges posed today by the suspension of trade activities between Pakistan and India, the massive consumer of our dry dates which accounts for 75-80% share of total dates exports, Pakistan dates markets and product diversification are in urgent need of expansion at the moment. This analysis report includes curative measures and remedial strategies to save and ensure the growth of this potent source of foreign exchange. Also, it covers the consolidated information on the factors and issues affecting the growth of Pakistan's dates export industry.

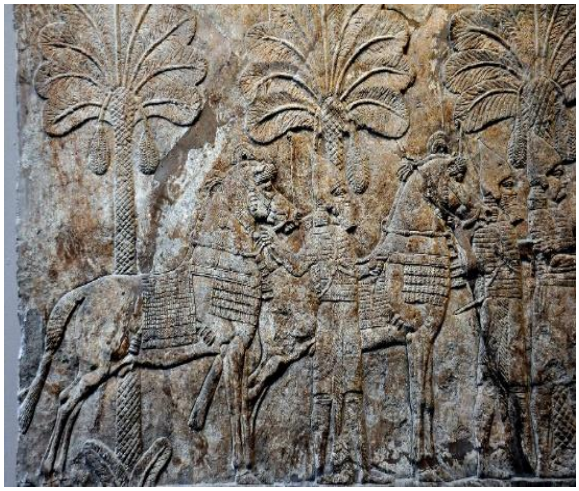
Concluding the facts, there is a dire need to bring a systemic change in current strategies and procedures of date industry in Pakistan. Adaptation of modern farming practices along with proper fruit handling techniques, cultivation of export-oriented varieties, strengthening preserving and processing facilities, encouraging value addition trends, improving SPS (sanitary & phyto-sanitary) regime, developing supply chain management and catering global market demands are some of the crucial areas that can anchor the dates industry of Pakistan in long-term.

I. INTRODUCTION – DATE PALM

Global - Historical Background

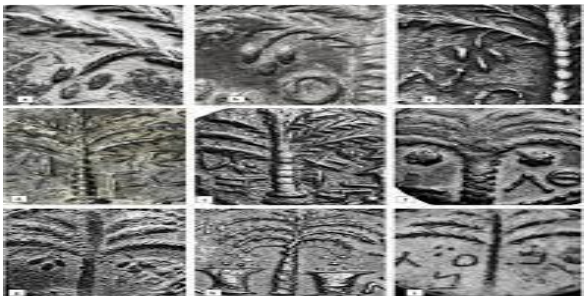
The exact origin of the first date palm is not known. However, there is general agreement that the history of date palm is as old as the history of man himself, considered the oldest cultivated fruit in the world and fossil evidence indicates that the dates go back at least 50 million years ago. The origin of date palm is thought to be Mesopotamia Gulf region or Indus Civilization. The scientific name of the tree of dates or the palm date (Phoenix dactylifera L., Family Arecaceae) derived from Greek word Phoenix Daktulos, which means purple or red finger. Throughout history the date fruit has been recognized as an energizing staple food and sometimes in appreciation of its fruits, the date tree is referred to as the sacred tree, the tree of life, the bread of the desert and the cake of the poor.

The fruit of the date palm is one of the most abundant fruits in the world. Hundreds of varieties having different texture, color, and flavor are available in global market, mainly at mature tamer stage for valorization and adoption in food processing operations.



Pakistan - Historical Background

The presence of date seeds in Pakistan during the excavation of Mohenjo Daro an archaeological site at Larkana, Sindh province (Marshal 1931). The silicified seeds or mineralized date stones of 6000 B.C have been found from Mehargarh IB and IIB sites of Pakistan. Some researchers believe that date palm was brought to the Indian subcontinent by Alexander the Great (Nixon 1951; Pasha et al. 1972). Another school of thought believes that the dates were spread in Sindh by Mohammed Bin Qasim in 712 AD (Ahmad and Tahir 2005; Dhillon et al. 2005; Jatoi et al. 2010). In the last century and during the colonial period of the Indian subcontinent, a number of Arabian date palm cultivar offshoots were imported in 1910-1912 from Basra (Iraq) by the British Indian Government and planted in Multan and Muzaffar Garh (Milne 1918).



II. PRODUCTION – DATE PALM

Global - Production

Dates are grown over 40 countries around the world (FAO 2021). Currently, about more than 120 million date trees are cultivated globally out of which 90% are grown in the Middle East and North Africa region (MENA) and 10% in other countries. However, Asia is in the first position with more than 60 million date palms (Saudi Arabia, Iran, Iraq, Pakistan, Oman, UAE, Kuwait, Qatar, Yemen, Bahrain, Israel, China mainland etc.), while Africa is second with more than 32.5 million date palms (Egypt, Algeria, Sudan, Tunisia, Libya, Morocco, Mauritania, Mali, Niger, etc.). The United States of America and Mexico have more than 60,000 palms followed by Europe.

Globally date palm production covers an area of 1,301,979 hectares with a total production of 9.65 million MT in 2021. Its cultivation area expands to Asia (831,534 ha with share of 56.11% in world production 2021), Africa (460,598 ha with share of 42.98% in world production 2021), the Americas (9,358 ha with share of 0.76% in world production 2021) and Europe (489 ha with share of 0.15% in world production 2021). The Asia and Africa are the leading dates producing regions accounting for respectively, 56.11 percent and 42.98 percent of the total world harvest. The share of the Americas and Europe in the world dates production was 73,619 and 14,455 MT, respectively. The share of Gulf Cooperation Council (GCC) countries was 25 percent with the following contribution of the member countries to this share: Saudi Arabia-16 percent, United Arab Emirates-3.6 percent, Oman-3.87 percent, Kuwait-1.12 percent, Qatar-0.29 percent and Bahrain-0.15 percent. However, Pakistan contributes share of 5.5% in total world dates production in 2021.

Pakistan - Production

Date palm or Khajoor/Khaji in the local language is the third most important fruit crop after citrus and mango in Pakistan. It is considered as an important cash crop of Pakistan and also has an economic importance because of its fruit, which is most nutritive and energy providing food. In 2021, Pakistan ranked at **6th** position in world with respect to dates production 532.9 thousand tons and **5th** position in world with respect to area under dates fruit 102.7 thousand hectares (FAO 2021). Date crop is found in all four provinces of Pakistan on 95.6 thousand hectares with a production of around 560.184 thousand tons in 2020-21 (MNFSR 2020-21). There are four major clusters of dates production in the country, namely at Sukkur and Khairpur in Sindh (40.3 thousand hectors with share of 39.25% in Pakistan's dates production 2020-21); Kech (the administrative center is Turbat) and Panjgur in Baluchistan (53.5thousand hectors with share of 57.3% in Pakistan's dates production 2020-21); Muzaffargarh, Jhang, Multan, Bahawalpur and D.G Khan in Punjab (0.48 thousand hectors with share of 0.8% in Pakistan's dates production 2020-21); and Dera Ismail Khan in Khyber Pakhtunkhwa (1.27 thousand hectors with share of 2.7% in Pakistan's dates production 2020-21). It is clear that Sindh and Baluchistan provinces account for about 96.6 % of the total Pakistan date production and 98.2% harvested area. However, dispersed date palm cultivation of less than 0.8 % of the total harvested area is carried out in a few places in the provinces of Punjab and Khyber Pakhtunkhwa, which are located in northern Pakistan where the temperatures are low; annual average temperature is 25C.

Figure-2 Global Dates Production 2021
Region-wise

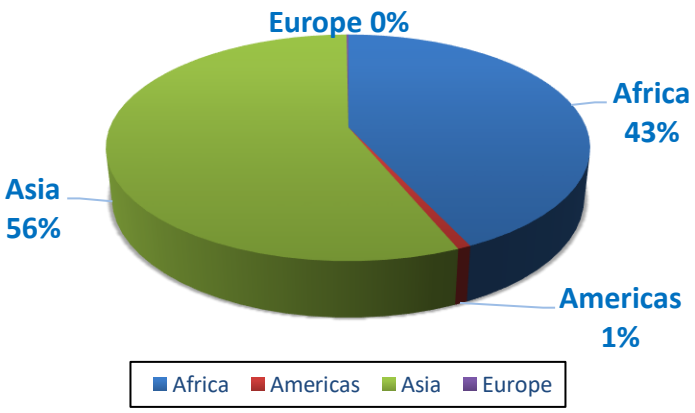


Figure-1 Pakistan Dates Production 2021
Province-wise

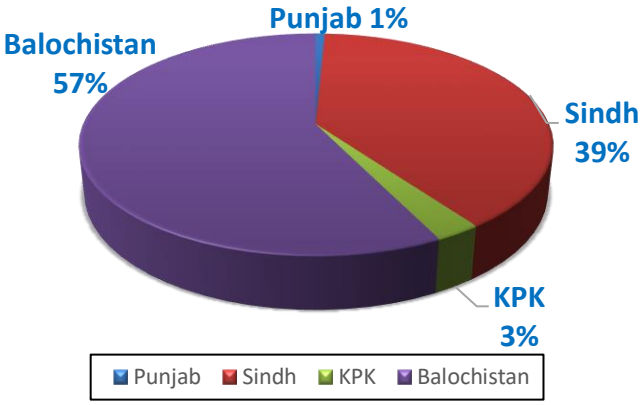


Table-1 Global Dates Production 2021
Harvested Area & Production

Year	Area Harvested (ha)	Production in Million Metric (Tons)
2016	1,182,970	8.29
2017	1,186,944	8.39
2018	1,226,834	8.53
2019	1,243,923	9.21
2020	1,258,441	9.52
2021	1,301,979	9.65
Source: FAO Stats		

Table-2 Pakistan Dates Production 2021
Harvested Area & Production

Year	Area Harvested (ha)	Production in Million Metric (Tons)
2016	97,100	0.467
2017	97,800	0.439
2018	98,302	0.540
2019	99,034	0.420
2020	99,500	0.564
2021	95,619	0.560
Source: Agriculture Marketing Information Service (AIMS) Directorate of Agriculture (Economics & Marketing) Punjab, Lahore		

Table-3 Global Top Date Producers
Production & Share (Global)

S#	Country	Production Value ('000 Tons)	% Share
World		**9,454.213**	**100%**
1	**Egypt**	**1,690.959**	**18%**
2	**KSA**	**1,541.769**	**16%**
3	**Iran**	**1,283.499**	**14%**
4	**Algeria**	**1,151.909**	**12%**
5	**Iraq**	**735.353**	**8%**
6	**Pakistan**	**543.269**	**6%**
7	**Sudan**	**465.323**	**5%**
8	**Oman**	**368.577**	**4%**
9	**Tunisia**	**332**	**4%**
10	**UAE**	**328.669**	**3%**
11	**Libya**	**177.629**	**2%**
12	**China**	**158.671**	**2%**
13	**Morocco**	**143.16**	**2%**
14	**Kuwait**	**111.748**	**1%**
15	**Yemen**	**69.59**	**1%**
16	**Türkiye**	**60.661**	**1%**
17	**USA**	**56.79**	**1%**
18	**Israel**	**48.984**	**1%**
19	**Qatar**	**26.607**	**0%**
20	**Jordan**	**23.09**	**0%**

Source: FAO Stats

Table-4 Pakistan Dates Production
Harvested Area & Production (Provinces)

Province	Punjab	Sindh	Baluchistan	KPK
Year	**Production "000" Tons**			
2016-17	43.6	202.3	180.8	12.4
2017-18	37.8	309.7	180.8	12.4
2018-19	37.67	186.36	181.52	14.57
2019-20	37.7	215.8	293.8	17.6
2020-21	4.23	219.93	321.07	14.96
Year	**Area "000" Hectares**			
2016-17	5.799	37.102	53.301	1.599
2017-18	4.901	38.502	53.301	1.599
2018-19	4.876	38.971	53.402	1.785
2019-20	4.601	39.603	53.499	1.801
2020-21	0.473	40.315	53.560	1.271

Source: Agriculture Marketing Information Service (AIMS)
Directorate of Agriculture (Economics & Marketing) Punjab, Lahore

III. VARIETIES – DATE PALM

Global Dates Varieties

Currently, more than 5000 date palm varieties exist globally. Many fresh date palm fruits are available throughout 8 months of the year. Due to their high sugar content, packed dry dates can be stored without any preserving agents for months. Date palms have a wide genetic diversity of genotypes with several known commercial varieties. Currently, there are 1,104 accessions of date palm relatives (belonging to the same genus) conserved in the gene banks and available for breeding purposes. However, 595 accessions of date palm are conserved in gene banks located in Afghanistan, Cuba, Spain, UK, India, Jordan, Libya, Pakistan, Sudan, Trinidad and Tobago, Tunisia, USA and South Africa. (WIEWS, FAO database).

There are many different varieties of dates grown around the world, each with their own unique characteristics. Among them some most popular and commercial varieties are Medjool, Deglet Nour, Piarom, Ajwa, Mabroom, Amber, Barhi, Mazawati, Zahidi, Khadrawy, Halawi, Hayani, Safwai/Kalmi, Sukkari, Khalas, Rabbai and Aseel.

Pakistan Dates Varieties

Pakistan is rich in producing premier and superior quality dates of different varieties. There are more than 300 varieties of date palm grown in Pakistan, which are very famous for flavored taste with more stuff (flash), softness and sweetness. The high calories, minerals and excellent nutritional values, plus their ability to keep well for long periods of time almost 18 months if stored correctly, make Pakistan dates great for emergency food rations. Also, there are many dates varieties in Pakistan having different specifications and characteristics like unique tastes, best shapes, soft or semi-soft stuffs, good sizes, identical in looks, intense or mild sweetness scale, high or low moisture levels and suitable colors. Pakistan Dates consumed in whole, dried, semi-dried, raw, organic, pitted, block, diced, chopped, syrup, paste and powder form.

Most of Pakistan dates varieties are considered as Organic Dates with natural contents and free from any chemical and pesticides or synthetic materials, meanwhile dates are cultivated in remote areas of the country, grown and ripe by traditional methods i.e. organic farming.

Besides table or dried dates, Pakistan dates are also very much popular as food ingredients dates all over the world and consumed as a natural sweetener in smoothies, juices, nutrition bars, bakery items and other different dates value added products.

Table-5 Global Dates Varieties

Name of Variety	Mostly Grown in
Medjool Dates	Morocco, Palestine, Israel, Saudi Arabia, Jordan, Iran, Namibia and USA
Deglet Noor Dates	Tunisia, Algeria, Israel and USA
Ajwa Dates	Saudi Arabia
Ambar Dates	Saudi Arabia
Piarom Dates	Iran and some other Middle East Countries
Safwai/Kalmi Dates	Saudi Arabia
Sukkari Dates	Saudi Arabia
Zahidi Dates	Iran and Iraq
Khalas Dates	Saudi Arabia and UAE
Barhi Dates	Iran, Iraq, Saudi Arabia, UAE, Namibia, Israel and USA
Mabroom Dates	Saudi Arabia
Mazafati /Muzawati Dates	Iran, Iraq and Pakistan
Rabbi Dates	Iran, Iraq and Pakistan
Ambara Dates (Most Expensive)	Saudi Arabia
Khudri Dates	Iraq and Saudi Arabia
Halawy Dates	Iraq
Hayani Dates	Egypt and USA
Saghai Dates	Saudi Arabia and other countries of Arabian peninsula
Sayer Dates (Widely Grown)	Iran and Iraq
Lulu Dates	UAE and Iran
Aseel Dates	Pakistan
Source: Desk Research-different websites	

Table-6 Pakistan Dates Varieties

Provinces	Varieties
Sindh Cultivars/Varieties	Aseel, Kuprro, Kharbalian, Fasli, Dedhi, Gajar, Patasho, Mithrri, Otakin, Halwaen, Boobak, Badamen, Dodi, Thorrhi, Asul, Kurrh, Nakul, Pathri, Noori, Dhakki, Narro, Began, Khori Wari, Thothar, Toto, Khurmo, Sawrro, , Kasho Wari, Luhar Wari, Achi Gajar, Surmit, Kotaen, Sakhanin, Dahota, Barmo, Ahmed Wari, Piper Wari, Allahen, Ghuri Wari, Taar Wari, Khurmit, Indrri, Ashrafi, Allah Bakhsh Wari, Sanhi Chapar, Koonj, Golrri, Phoopher, Gharrhi Ashrafi, Shabihan, Warangi, Shah Wari, Bahar Wari, Jammu, Mohani Wari, Poong, Sobhari, Kazen, Khahnyanin, Jalebi, Gorrho Misri, Haji Wari, Hakim Wari, etc.
Baluchistan Cultivars/Varieties	Begum Jangi, Muzati/Muzawati, Juwansur, Karaba, Rabbi, Turbat Mix, Shareefa, Barni, Shakri, Hussaini, Goknah, Halini, Dishtari, Konzenabad, Pashpag, Washakar, Sabzo, Alini, Ape-Dandan, Chapshuk, etc.
Punjab Cultivars/Varieties	Hillavi, Khudrawi, Shamran, Zahidi, Ziri etc.
KPK Cultivars/Varieties	Dhakki, Gulistan, Azadi, Muscat, Shakri etc.
Source: Desk Research-different websites	

Table-7 Export Potential Dates Varieties and Value Added Products in Pakistan

Table Dates Varieties	Pitted Dates (Food ingredients) Varieties	Dry Dates (Chhohara) Varieties	Dates Processed & Value added Products
1. **ASEEL** Table Dates 2. **MAZAWATI** Table Dates 3. **JAWANSORE** Table Dates 4. **RABBAI** Table Dates 5. **KUPRO** Table Dates 6. **KARBALAIN** Table Dates 7. **DHAKKI** Table Dates	1. **ASEEL** Pitted Dates 2. **BEGUM JANGI** Pitted 3. **TURBAT-MIX** Pitted 4. **KAHRABA** Pitted Dates	1. **ASEEL** Dry Dates (Black) 2. **DHAKKI** Dry Dates(Colored)	1.**BLOCK** Dates 2.**CHOPPED** / **DICED** 3.**SLICED** Dates 4.Dates **PASTE** 5.Dates **POWDER** 6.Dates **SYRUP**

Table-8 Table Dates Varieties in Pakistan - Characteristics / Specifications

1. **ASEEL** Table Dates Type (Avg): Semi-dry Shape (Avg): Oblong / Cylindrical Color (Avg): Dark Brown Weight (Avg): 9 – 11 gm Length (Avg): 3.8 – 4.3 cm Width (Avg): 2 – 2.5 cm Moisture Content (Avg): 15 – 18% Shelf Life (Avg): 15 – 18 months Storage Temp (Rec): < 8 C Procurement (Season): July – August Grades (Available): Select , A-Grade Packaging (Bulk): 5 – 25 Kg Packaging (Retail): 500 gm – 3 Kg Transportation (Rec): Normal	
2. **MAZAWATI** Table Dates Type (Avg): Semi-dry Shape (Avg): Oval Color (Avg): Dark Brown to Black Weight (Avg): 20.7 gm Length (Avg): 4.49 cm Width (Avg): 2.64 cm Moisture Content (Avg): 20 – 25% Shelf Life (Avg): 10 – 12 months Storage Temp (Rec): < 4 C Procurement (Season): Sept – October Grades (Available): Select Packaging (Bulk): 5 – 10 Kg Packaging (Retail): 500 gm – 1 Kg Transp.(Rec): Reefer	

3. **JAWANSORE** Table Dates Type (Avg): Semi-dry Shape (Avg): Obovate Color (Avg): Brown Weight (Avg): 11.5 gm Length (Avg): 3.95 cm Width (Avg): 1.90 cm Moisture Content (Avg): 18 – 21% Shelf Life (Avg): 10 – 12 months Storage Temp (Rec): < 4 C Procurement (Season): Aug – September Grades (Available): Select Packaging (Bulk): 5 – 10 Kg Packaging (Retail): 500 gm – 1 Kg Transportation (Rec): Reefer	
4. **RABBAI** Table Dates Type (Avg): Semi-dry Shape (Avg): Elongated Color (Avg): Reddish Brown Weight (Avg): 12.1 gm Length (Avg): 4.35 cm Width (Avg): 2.15 cm Moisture Content (Avg): 12 – 14% Shelf Life (Avg): 15 – 18 months Storage Temp (Rec): < 8 C Procurement (Season): Sept – October Grades (Available): Select Packaging (Bulk): 5 – 10 Kg Packaging (Retail): 500 gm – 1 Kg Transportation (Rec): Normal	
5. **KUPRO** Table Dates Type (Avg): Semi-dry Shape (Avg): Oval Color (Avg): Reddish Brown to Blackish Weight (Avg): 12.31 gm Length (Avg): 3.32 cm Width (Avg): 1.93 cm Moisture Content (Avg): 13 – 15% Shelf Life (Avg): 10 – 12 months Storage Temp (Rec): < 4 C Procurement (Season): July – August Grades (Available): Select , A-Grade Packaging (Bulk): 5 – 10 Kg Packaging (Retail): 500 gm – 1 Kg Transp.(Rec): Normal (winter), Reefer (summer)	

6. **KARBALAIN** Table Dates Type (Avg): Semi-dry Shape (Avg): Obovate Color (Avg): Yellowish Weight (Avg): 5.38 gm Length (Avg): 3.21 cm Width (Avg): 1.92 cm Moisture Content (Avg): 12 – 15% Shelf Life (Avg): 12 – 15 months Storage Temp (Rec): < 8 C Procurement (Season): July – August Grades (Available): Select , A-Grade Packaging (Bulk): 5 – 10 Kg Packaging (Retail): 500 gm – 1 Kg Transportation (Rec): Normal	
7. **DHAKKI** Table Dates Type (Avg): Semi-dry Shape (Avg): Oblong oval Color (Avg): Light to Dark Brown Weight (Avg): Around 20 gm Length (Avg): 4.49 – 4.56 cm Width (Avg): 2.22 cm Moisture Content (Avg): 20 – 25% Shelf Life (Avg): 10 – 12 months Storage Temp (Rec): < 4 C Procurement (Season): Aug – September Grades (Available): Select Packaging (Bulk): 5 – 10 Kg Packaging (Retail): 500 gm – 1 Kg Transportation (Rec): Reefer	

Table-9 Pitted Dates (Food ingredients) Varieties in Pakistan - Characteristics / Specifications

1. **ASEEL** Pitted Dates Type (Avg): Semi-dry Color (Avg): Dark Brown Weight (Avg): 5 – 8 gm Length (Avg): 2.5 – 3.5 cm Width (Avg): 1.5 – 2.5 cm Moisture Content (Avg): 15 – 17% Shelf Life (Avg): 18 – 20 months Storage Temp (Rec): < 8 C Procurement (Season): July – August Grades (Available): Select, GAQ, FAQ, Industrial Packaging (Bulk): 5 – 10 Kg Packaging (Retail): 500 gm – 3 Kg Transportation (Rec): Normal	

2. **BEGUM JANGI** Pitted Dates Type (Avg): Semi-dry Color (Avg): Light to Dark Brown Weight (Avg): 5 – 8 gm Length (Avg): 2.5 – 3.2 cm Width (Avg): 1.5 – 2.5 cm Moisture Content (Avg): 15 – 20% Shelf Life (Avg): 18 – 20 months Storage Temp (Rec): < 8 C Procurement (Season): Aug – September Grades (Available): FAQ, Industrial Packaging (Available): 5 – 25 Kg Transportation (Rec): Normal	
3. **TURBAT-MIX** Pitted Dates Type (Avg): Semi-dry (Mixture of varieties) Color (Avg): Dark Brown / Black Moisture Content (Avg): 15 – 19% Shelf Life (Avg): 15 – 18 months Storage Temp (Rec): < 8 C Procurement (Season): July – September Grades (Available): Industrial Packaging (Available): 5 – 25 Kg Transportation (Rec): Normal	
4. **KAHRABA** Pitted Dates Type (Avg): Semi-dry Color (Avg): Dark Brown / Black Weight (Avg): 4 – 5.1 gm Length (Avg): 2 – 2.5 cm Width (Avg): 1.74 cm Moisture Content (Avg): 11 – 13% Shelf Life (Avg): 12 – 15 months Storage Temp (Rec): < 8 C Procurement (Season): Sept – October Grades (Available): FAQ, Industrial Packaging (Available): 5 – 25 Kg Transportation (Rec): Normal	

Abbreviations: GAQ – Good Average Quality
FAQ – Fair Average Quality

Table-10 Dry Dates (Chhohara) Varieties in Pakistan - Characteristics / Specifications

1. **ASEEL** Dry Dates (Black / Colored) Type (Avg): Dry Color (Avg): Brownish Black/ Yellowish Weight (Avg): 4 – 8 gm Length (Avg): 2.5 – 4 cm Width (Avg): 1.5 – 2.5 cm Moisture Content (Avg): 05 – 08% Shelf Life (Avg): 20 – 24 months Storage Temp (Rec): < 12 C Procurement (Season): July – August Grades (Available): K-1, K-2, K-3, K-4 Packaging (Bulk): 30 – 50 Kg Jute/Plastic bag Packaging (Retail): 500 gm – 3 Kg Transportation (Rec): Normal	

2. **DHAKKI** Dry Dates (Colored / Black) Type (Avg): Dry Color (Avg): Yellowish/ Brownish Black Weight (Avg): 8 – 10 gm Length (Avg): 4 – 4.5 cm Width (Avg): 1.75 – 2.5 cm Moisture Content (Avg): 05 – 08% Shelf Life (Avg): 20 – 24 months Storage Temp (Rec): < 12 C Procurement (Season):Aug – September Grades (Available): R-1, R-2, R-3, R-4 Packaging (Bulk): 30 – 50 Kg Jute/Plastic bag Packaging (Retail): 500 gm – 3 Kg Transportation (Rec): Normal	 

Abbreviations: **K-1(Top), K-2(Good), K-3(Medium), K-4(Low)**
R-1(Top), R-2(Good), R-3(Medium), R-4(Low)

Table-11 Dates Processed & Value-added Products in Pakistan-Characteristics/Specifications

1. **BLOCK** Dates Basic Varieties: Aseel / Begum Jangi Dates Shape (Avg): Pressed as Rectangle Block Packaging (Available): 250 gm – 1000 gm Storage Temp (Rec): < 8 C Transportation (Rec): Normal Applications: Ready to eat, Homemade Backing and Cooking, Industrial Food ingredients etc.	
2. **CHOPPED / DICED** Dates Basic Variety: Aseel Dates Size: 5x5mm – 8x10mm Coated in: Rice Flour / Dextrose Packaging (Bulk): 10 Kg per Box Packaging (Retail): 250 gm – 1000 gm Storage Temp (Rec): < 8 C Transportation (Rec): Normal Applications: Ready to eat, Homemade Backing and Cooking, Muesli/Breakfast, Bakery items, Energy bars, Industrial Food ingredients etc.	
3. **SLICED** Dates Basic Variety: Aseel Dates Size: 1x3.5mm Coated in: Rice Flour / Dextrose Packaging (Bulk): 10 Kg per Box Packaging (Retail): 250 gm – 1000 gm Storage Temp (Rec): < 8 C Transportation (Rec): Normal Applications: Ready to eat, Homemade Backing and Cooking, Cakes Fruit Trifle, Bakery items, Energy bars, Industrial Food ingredients etc.	

4. Dates **PASTE** Basic Varieties: Aseel / Begum Jangi / Turbat Mix Packaging (Available): 10 – 20 Kg per box Storage Temp (Rec): < 8 C Transp.(Rec): Normal (winter), Reefer (summer) Application: Bakery and confectionery items, Cakes and Muffins, Brownies, Energy bars, Coffee sweetener, Homemade Backing and Cooking etc.	
5. Dates **POWDER** Basic Varieties: Aseel Dry Dates Features: Grainy and Fine quality Packaging (Bulk): 10 Kg per bag Packaging (Retail): 250 gm – 1000 gm Storage Temp (Rec): < 12 C Transportation (Rec): Normal Applications: Sugar Substitute, ingredient for Baby food, Dairy and confectionery items, Bakery items, Cakes and Muffins, Protein bars, Tea and Coffee sweetener etc.	
6. Dates **SYRUP** Basic Varieties: Begum Jangi / Turbat Mix / Aseel Packaging (Retail): 350 ml – 500 ml Packaging (Bulk): 20 – 30 liters per drum Storage Temp (Rec): < 8 C Transp.(Rec): Normal (winter), Reefer (summer) Applications: Industrial Food ingredients, Wines, Spirits, Vinegar, Juice blends, Drinks and Beverages, Bakery and confectionery items, Homemade Backing and Cooking etc.	

IV. MULTIPLE BENEFITS OF DATE PALM & ITS VALUE-ADDED PRODUCTS

a) Economic Importance - Date Palm:

Date palm is a multipurpose tree that provides fruit, fiber, sheltering material and fuel. Dates are used since generations because of their economic benefits. Each part of the tree has the potential to offer economic returns for empowering of poor rural people and give a boost to their incomes. Its trunk furnishes timber; leaves provide roofing materials; leaf midribs supply material for crates and furniture; the leaflets are manufacture into baskets; the leaf bases are used for fuel; the fruit stalks provide rope and fuel; the fibers are processed into cordage and packing material; and the seeds can be ground and used as livestock feed. Syrup, alcohol, vinegar can be processed from the fruits. The sap is also used as a beverage, either fresh or fermented, but, because the method of extraction seriously harms the tree, only those that produce little fruit are used for sap. Date oil is also suitable for use in soap and cosmetic products. They can also be processed chemically as a source of oxalic acid. Viscous thick syrup made from the ripe fruits can be used as a coating for leather bags and pipes to prevent leaking.

Compared to similar types of fruit, such as figs and dried plums, dates have the highest content of antioxidant. The glycemic index of dates varies from 30.5 to 49.7 which make them attractive for slowing the rise in blood glucose and insulin levels. Compared to other fruits and foods (apricot: 520 calories/kg; banana: 970 calories/kg; orange: 480 calories/kg; cooked rice: 1,800 calories/kg; wheat bread: 2,295 calories/kg; meat (without fat): 2,245 calories/kg, dates give more than 3,000 calories per kilogram.

Having characteristics of low fats, appropriate moisture contents, carbohydrates and other nutritional values with a sweet and supple taste & texture along with a chewing pleasure, dates are considered as complete food and cherished all around the world.

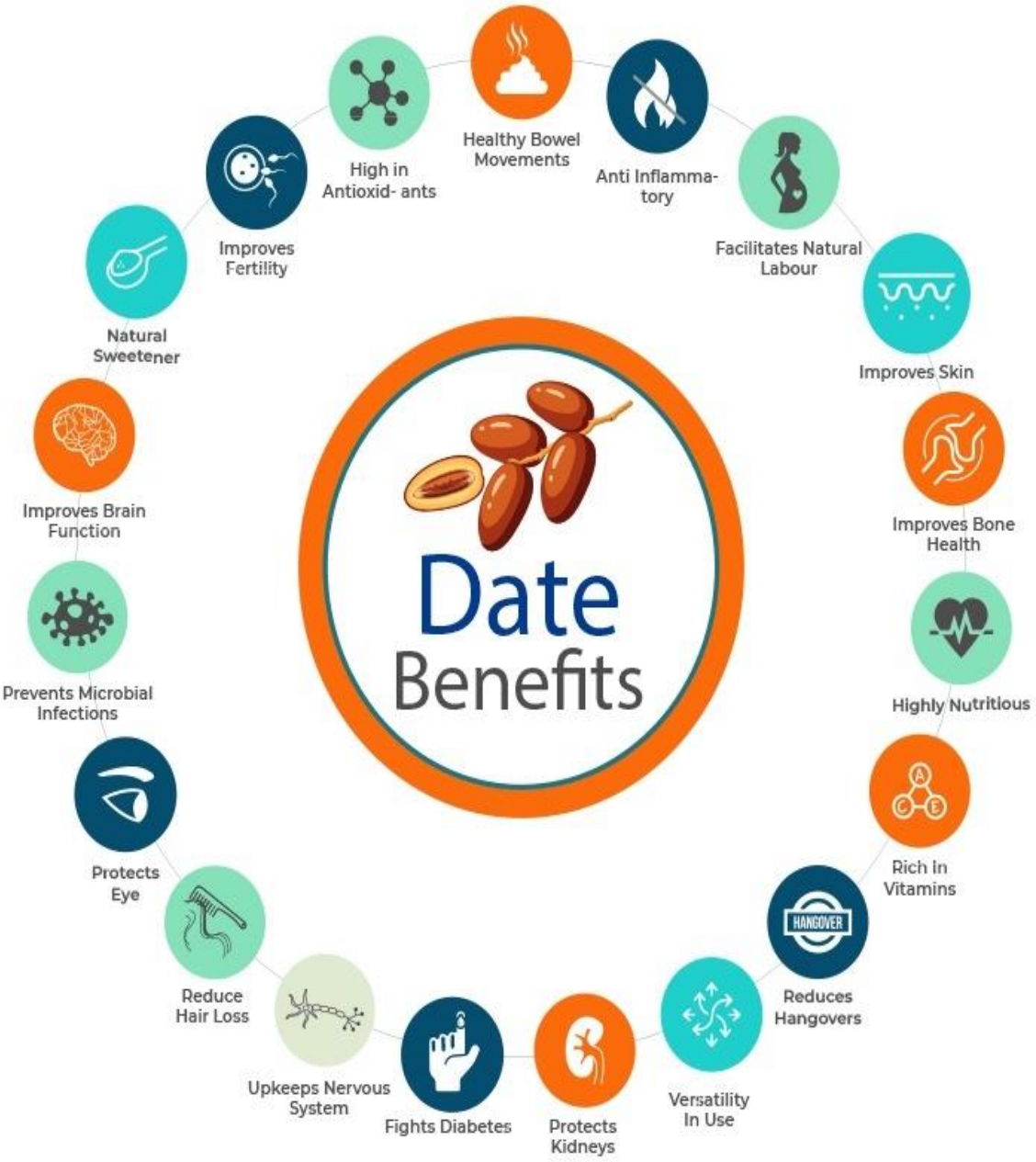
Table-12 Scientific Classification - Date Palm

Kingdom	***Plantae***	**Binomial Name** - Phoenix dactylifera L.
Clade	***Tracheophytes***	**Synonyms –** *Palma dactylifera* (L.) Mill. *Phoenix chevalieri* D.Rivera, S.Ríos & Obón *Phoenix iberica* D.Rivera, S.Ríos & Obón
Clade	***Angiosperms***	
Clade	***Monocots***	
Clade	***Commelinids***	
Order	***Arecales***	
Family	***Arecaceae***	Source: WIKIPEDIA https://en.wikipedia.org/wiki/Date_palm
Genus	***Phoenix***	
Species	***P. dactylifera***	

Table-13 Nutritional Values – Dates Fruit

Dates contain the following food values, calculated per 100 grams	
Calories 282	Calories from Fat 3.5
	% Daily Value*
Total Fat 0.4g	1%
Saturated Fat 0g	0%
Trans Fat 0g	
Polyunsaturated Fat 0g	
Monounsaturated Fat 0g	
Cholesterol 0mg	0%
Sodium 2mg	0%
Potassium 656mg	19%
Total Carbohydrates 75mg	25%
Dietary Fiber 8g	32%
Sugars 63g	
Protein 2.5g	
Vitamin A	0.2%
Vitamin C	0.7%
Calcium	3%
Iron	5.7%
*Percent Daily values are based on a 2000 calories diet	
One Kg (1000 grams) dates contain, on an average, 3000 calories. Whereas average human body requirement is between 2500 to 3000 calories a day	
Source: nutritionix a Syndigo Company https://www.nutritionix.com/food/dates/100-g	

Figure-3 Nutritional Benefits of Date



b) Date Fruits Value Added Products (By-products):

Date fruits have enormous scope and potential for use as food because of their nutritional and economical values. Dates are somehow underrated because they can be used in many different ways; domestically the date fruit is used as regular diet in both fresh and dried form (select grades), while it is also used as an ingredient for manufacturing of various dates value added products (industrial grades). Some important uses and applications of dates are as under:

1) Table Fruit (Fresh Dates):

Mostly, the fresh dates (pitted or un-pitted) of selected grade are used for table fruits in different consuming countries, maximum consumption is during the holy month of Ramadan in whole Islamic world since Muslims all over the world break their fast with dates. Another peak of consumption is during the annual Pilgrimage Holy Days observed by millions of Muslims from all over the world. However, in many countries including in Pakistan the seeds from the soft fresh dates is manually or through pitting machine driven out and replaced with dried fruits like almonds, walnuts, pistachio etc., while some pressed it to make block, bars and chopped dates to earn money from their markets.

2) Dried From (Dry Dates):

Dried dates (natural or colored) are used for both domestic (to eat) as well industrial (powder) purposes. The dry date powder is mostly used for confectionary, bakery and other food products. While the dry date (Chhuhara) of Pakistan is not a specific dry date like in world because mostly in different date producing countries the dates are naturally ripped and dried to some extent on the palm trees like Deglat Noor, Zahidi, Sayer etc., which is more liked and consumed than our product because the dry date (Chhuhara) produced in Pakistan is just a byproduct of dates, the growers collect the hard unripe dates and boiled it to convert into dry date (Chhuhara) and manually it is dehydrated under the sun or through solar tunnel dryer. The major use of our Chhuhara is for Hindu religious festivals and rituals, mostly consumed by India and the rest are sold in the international market (UAE, Nepal, Bangladesh etc.) at very low prices of 350-400 US dollars per metric ton.

3) Industrial Use (Food Ingredients Dates):

The raw material used for the industrial products usually consists of dates of a lower quality, the good quality dates may also be used when there is a surplus of fruit on the market. There are various uses of dates in the industry include date paste, date syrup, date powder, date juice, date honey, date vinegar, date jams, beverage extract, sauces, pickles, desserts, confectionary items, bakery items, liquid sugar and alcohol etc. Some important industrial uses of dates are as under:

i) Pressed Pitted Dates: This is a very useful basic industrial product; the dates are pitted by hand or by machine, pressed into a mold and vacuum packed. Packing in this way and with the right amount of moisture (less than 20 %) preserves the stability of the product over time without refrigeration. This product is used mainly as a filling for cakes and biscuits and other confectionary items.

ii) Dates Paste: Simple additional grinding operation will turn the soft dates into date paste and refrigeration may also be required to prevent possible fermentation. The date paste is used for i) filling biscuits, cakes, pastries and other baked goods ii) main ingredients for energy bars, fruit bars and healthy snacks iii) base for fruit flavored yogurts and sauces i.e. ketchup and sauces iv) ingredients for baby food, spread, jams and other confectionary goods.

iii) Dates Syrup / Molasses: Date syrup is a concentrated liquid obtained by dissolving date juice in water, also available in two types of thick and thin. There are five production stages are involved: pretreatment, extraction of juice, clarification, concentration and filtration. The date syrup is used for i) natural sweetener for beverages, energy bars, baby food and baked goods ii) flavoring for shakes, yogurts, ketchup, sauces and syrups iii) toping for different items iv) health related consumption, i.e. pregnancy, iron deficiency and energy boost v) cosmetic use in the form of face masks and hair masks.

iv) Dates Powder: It is sweeteners made from dried dates which are ground into a coarse, granular powder that may be blended with an anti-caking agent (depending on specification). Unlike regular sugar, date powder contains more nutritional benefits. The dry date powder is mostly used for confectionary, bakery and other food products.

v) Dates Sugar (liquid / Powder): It is a more concentrated form of dates in the shape of sugar and made from pure dates. In this product, all non-sugary compounds such as protein, fiber, and dye are extracted from the date extract and the process consists of grinding 100% natural dates into fine texture ready to be used as a replacement for white and brown sugar in powder/liquid form. Liquid sugar that looks like date syrup but with more sugar content and the powdery form makes it a healthy sugar alternative for baking and cooking needs. Date liquid sugar can be used as a substitute for sugar and other sweeteners in different beverages and cakes.

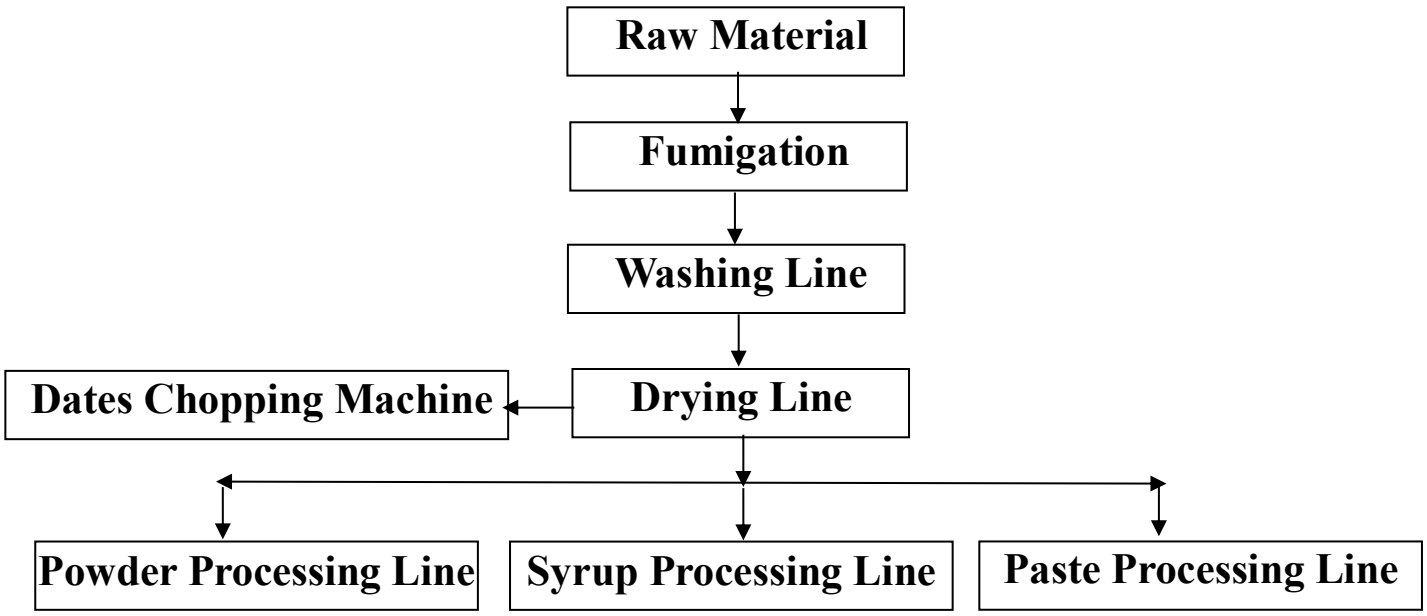
vi) Dates Honey: It is a refined extract of date syrup, which is bleached and its mineral salts are extracted and formulated as a honey-like concentrate. Date Honey contains all nutrition of dates and as sweet as a cup of sugar but way healthier. This is why it is used in the beverage, chocolate, ice cream, marmalade, and candy industries as well as in confectionery as a substitutive of white sugar.

vii) Dates Vinegar: Dates can be used for obtaining vinegar with a great sweet taste. This vinegar has a sweet-savory taste and can be used as a dressing or ingredient in different dishes.

viii) Alcohol: Alcoholic drinks can be produced by the fermentation of the dates.

V. DATES PROCESSING MACHINERIES FOR VALUE ADDED PRODUCTS (SYRUP, PASTE AND POWDER)

Pakistan Requirement



** Cold Storages for
- Raw material
- Final Products

** Solar Panels and Backup Generators

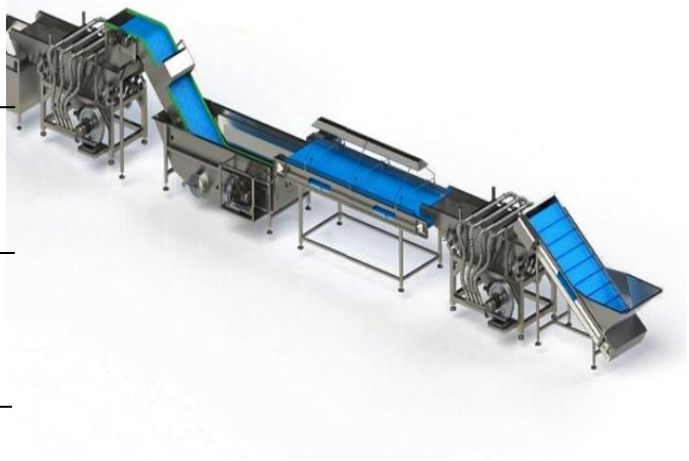
Syrup Processing Line

Paste Processing Line

Powder Processing Line

Dates Chopping Machine

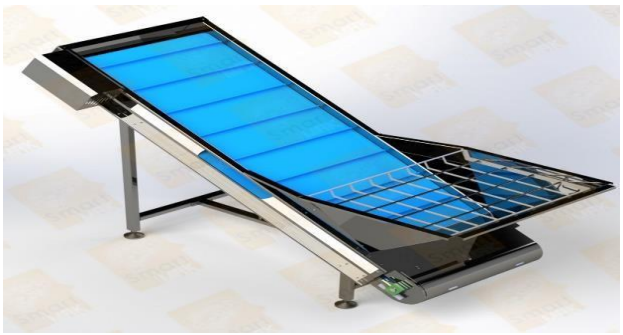
Washing & Drying Lines Accessory



20 FEET FUMIGATION CHAMBER BY SMART MAK TURKEY

DATES WASHING AND CLEANING LINE BY SMART MAK TURKEY (WHOLE PROCESS)

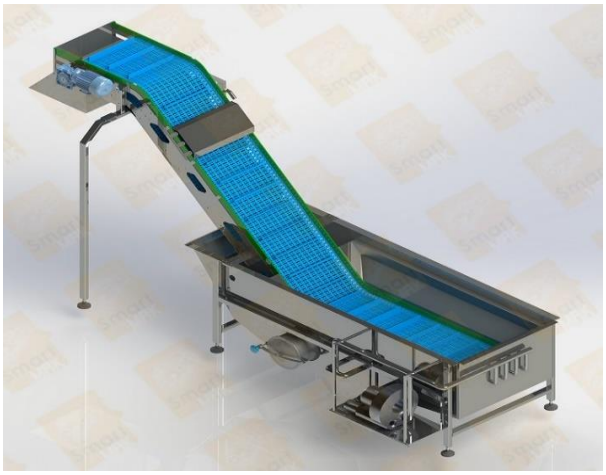
1- **Washing Unit Feeding Conveyor**



2- **Impurities and Sticks Removing Vibrator**

3- Visual Inspection and Sorting Conveyor

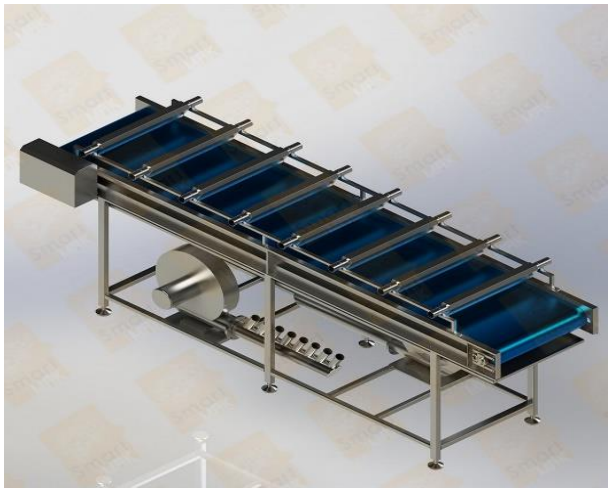
4-Dip Washing Unit – Jacuzzi



5- Water Spray Washing Unit

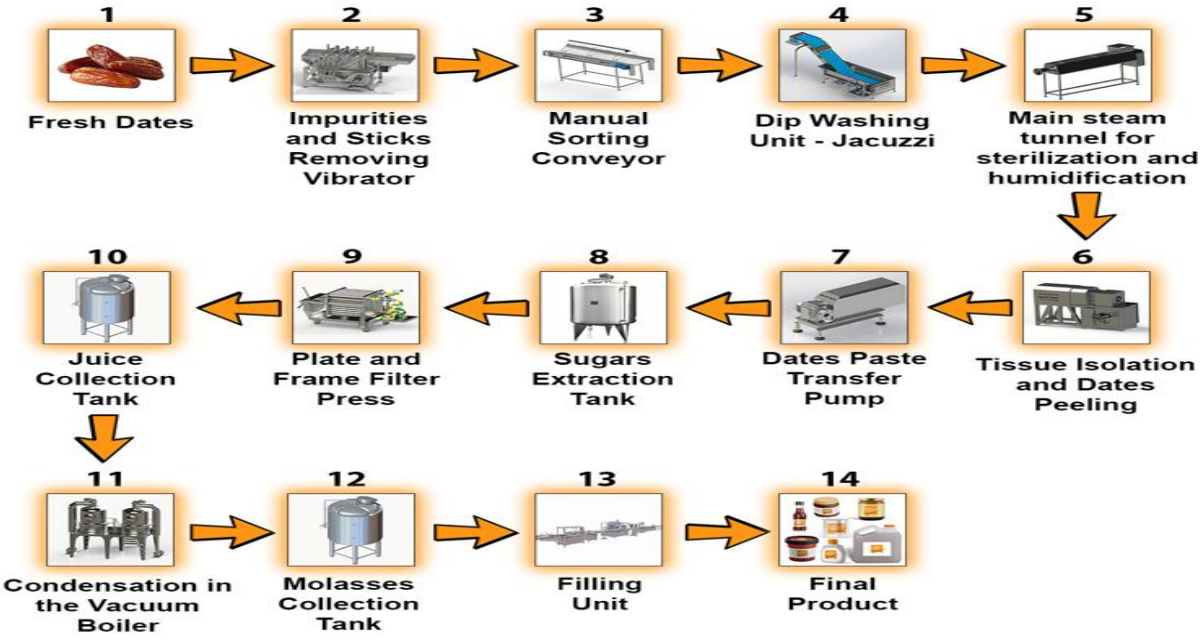
6- Air Drying Vibrator

7- Air Spray Drying Conveyor

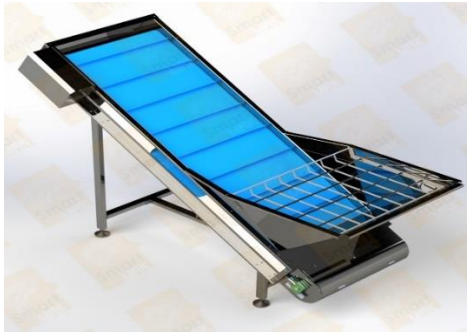


8- Transporting Conveyor

DATES SYRUP PROCESSING AND FILLING LINE BY SMART MAK TURKEY (WHOLE PROCESS WITH WASHING LINE)



1. Feeding Conveyor



2- Impurities and Sticks Removing Vibrator

3- Manual Sorting Conveyer

4- Dip Washing Unit – Jacuzzi

5- Main Steam Tunnel

6- Tissue Isolation and Dates Peeling Machine

7- Dates Paste Transfer Pump

8- Sugar Extraction Tank

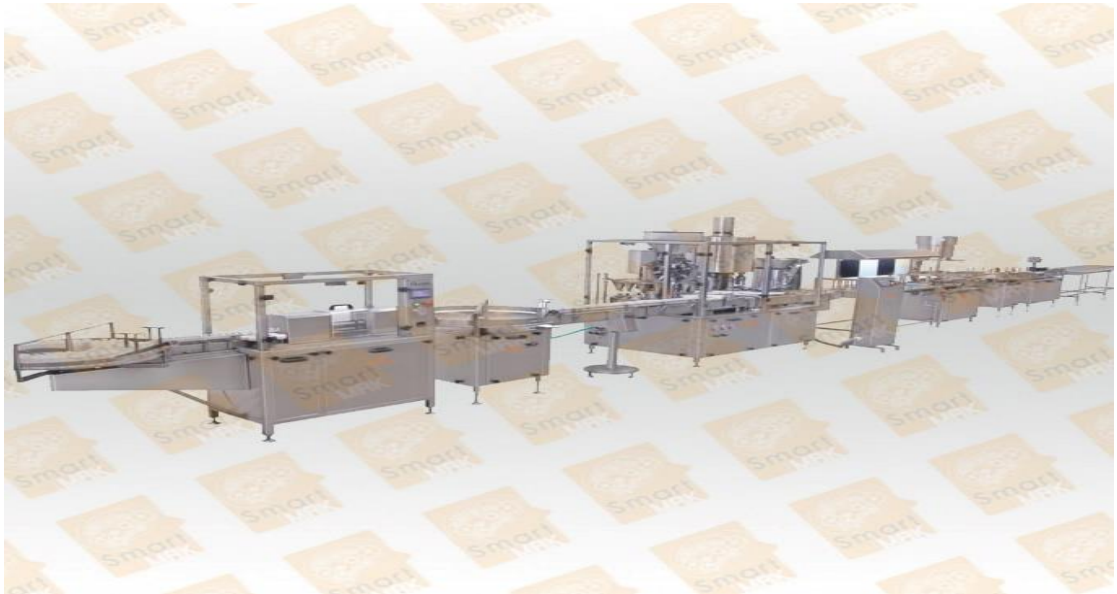
9- Plate and Frame Press Filter

10- Double Jacket Juice Collection Tank

11- Condensation Vacuum Boiler

12- Molasses Collecting Tank

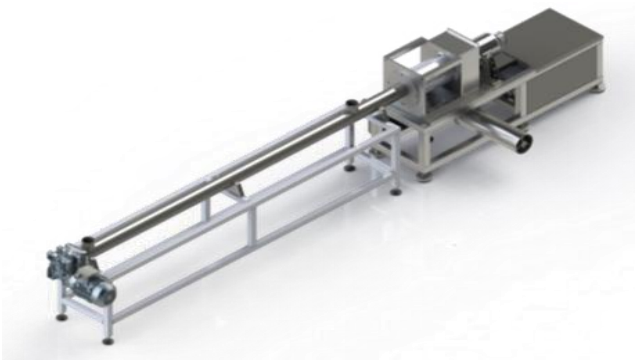
13- Liquid Filling Unit



Other Applicable Machines for Syrup Line (if without Washing Unit)

*** Sugars Extraction Unit**

****Centrifugal Filter**

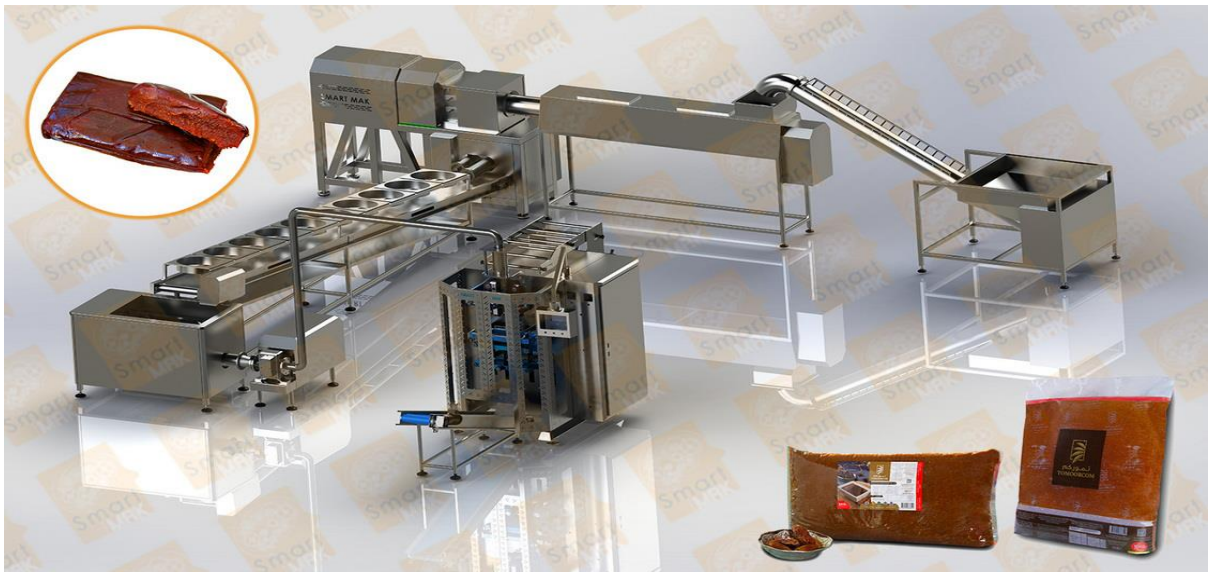


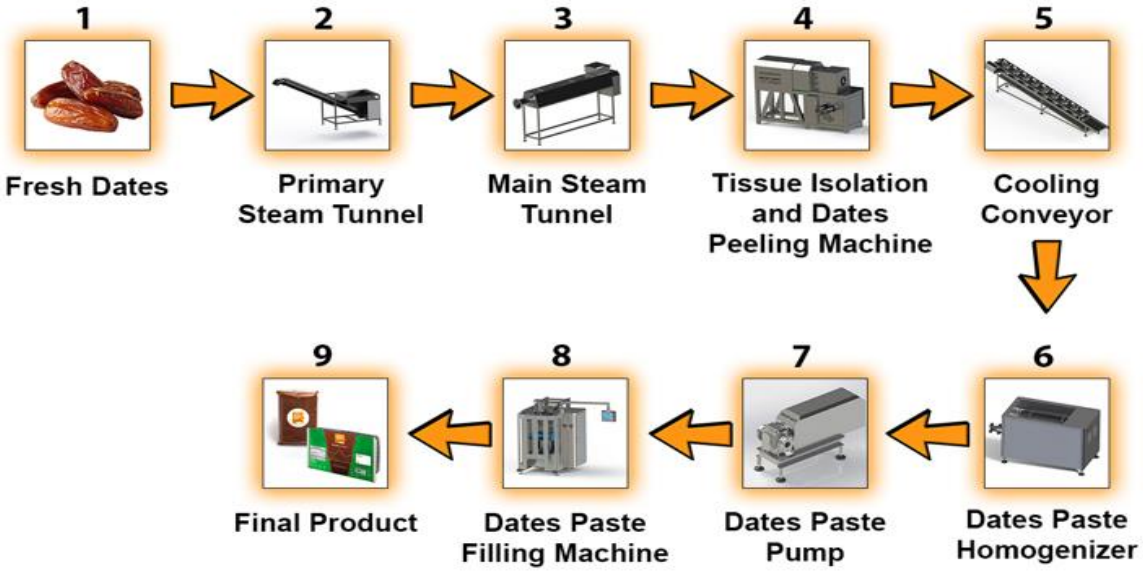
***** Clean in Place System – CIP**

****** Gallons semi-automatic Filling Machine**

******* Bottles Automatic Filling Line**

DATES PASTE PROCESSING AND FILLING LINE
BY SMART MAK TURKEY



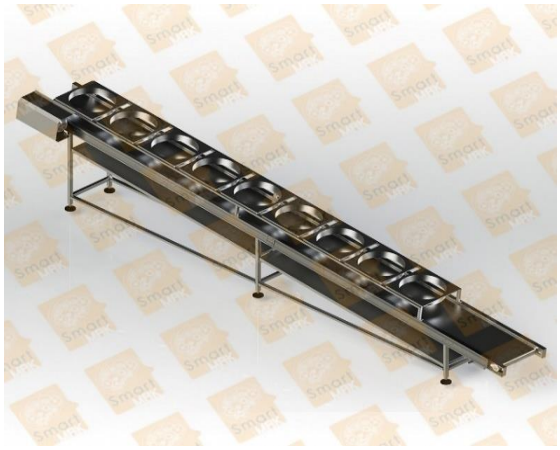


1- Primary Steam Tunnel

2- Main Steam Tunnel

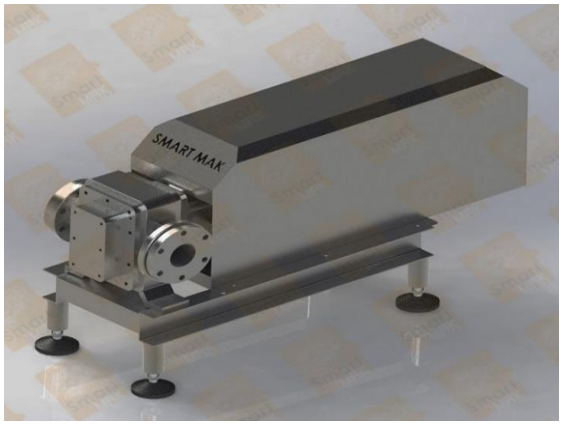
3- Tissue Isolation and Dates Peeling Machine

4- Cooling Conveyor



5- Dates Paste Homogenizer

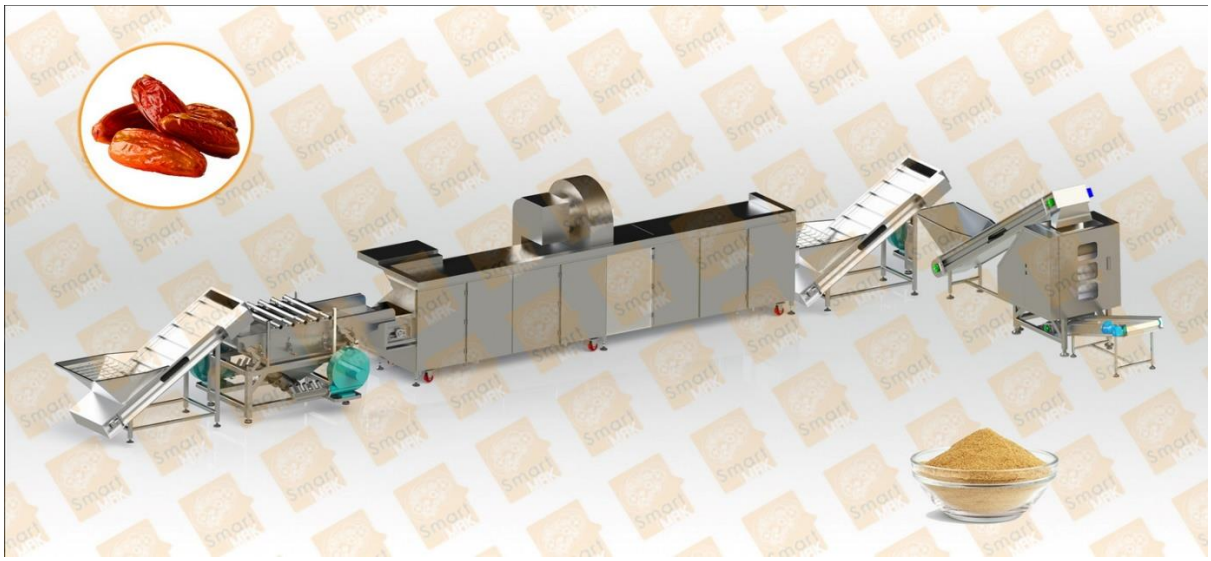
6- Dates Paste Pump

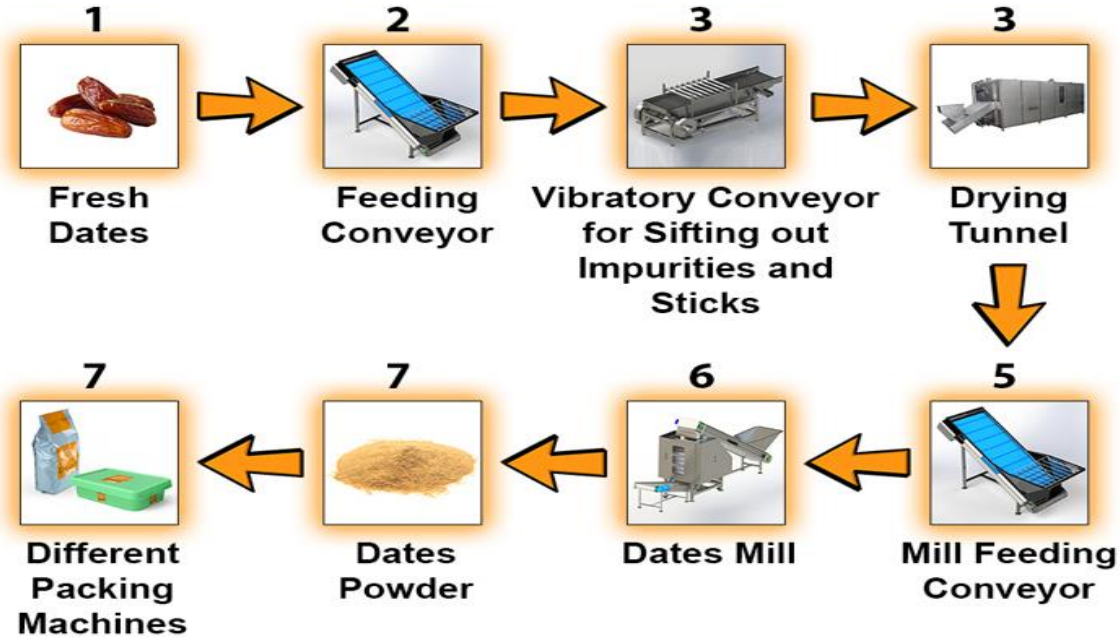


7- Dates Paste Filling Machine

8- Final Product Conveyor

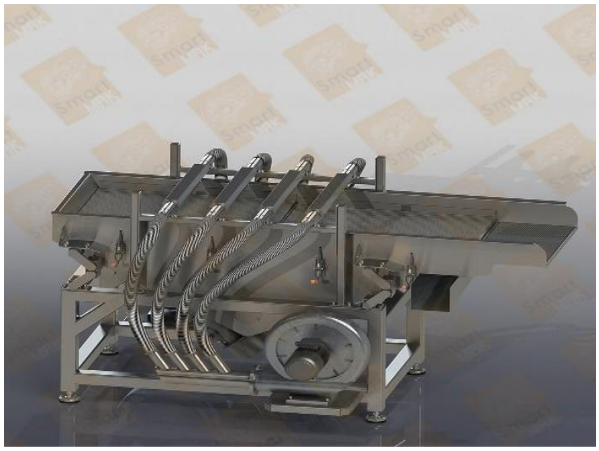
DATES POWDER PROCESSING AND PACKING LINE
BY SMART MAK TURKEY





1. Feeding Conveyor

2- Impurities and Sticks Removing Vibrator



3- Fruits and Dates Drying Tunnel

4- Transporting Feeding Conveyor

5- Sugar and Dates Mill

6- Transporting Feeding Conveyor

7- Powder Filling Machine

DATES CHOPPING MACHINE

(This machine is not being manufactured by SMARTMAK Turkey)

VI. DATE PALM CROPPING AND CULTIVATION

Date palm is cultivated in arid and semi-arid regions which are characterized by long and hot summers, no (or at most low) rainfall, and very low relative humidity level during the ripening period. So, date palm can be grown in a dried climate with more heat and less moisture. Date Palm tree is capable of bravely facing the threats of salinity and water logging. According to a scientific study Date Palm can grow very well at a 43 Celsius. However, it has lesser capacity to sustain monsoon rains with ripen fruit. Besides silt grown land, Date Palm can be grown in an arid zone.

Pollination in date palm is very necessary for proper and sound production. The male date palms produce pollen from massive flowers, which are then used to pollinate the fruit buds on the female trees that will then produce the fruit. Unfortunately, pollination doesn't happen reliably enough on its own, so growers need to help it along by laborers or through pollination machines.

In Pakistan, date palms can reach a height of 15-25 m and begin to bear fruit in 4 to 6 years and reach full bearing at 10 to 15 years, yielding 80 to 120 Kgs or more each of dates per harvest season. The shape, size, color, quality, and consistency of date flesh vary according to the variety cultivated and the growing conditions. There are three techniques for date palm propagation in Pakistan.

A) Through Seed propagation:

Seed propagation is not so popular and often discouraged by leading growers, because of various reasons of its slow growth and output and it is by far the easiest and quickest method of propagation.

B) Through Offshoot propagation (traditional method):

Off shoot method of plantation is very much popular and successful as well. The offshoots develop from axillary buds on the trunk of the mother plant and consequently the fruit produced will be of the same quality as the mother palm and ensures uniformity of produce.

C) Through Tissue culture techniques:

The tissue culture techniques for date palm has many advantages (in comparison to the above two techniques) for propagation of disease-free and pest-free healthy cultivars with genetically uniform production.

Pre and Post-Harvest Procedures in Pakistan

Table-14 Pre-Harvest Procedures

Months	Procedure
Nov-Feb	Initial Preparation and Cleaning of Date palm
Feb-March	Pollination of Date palm
April-May	Formation of Date palm bunches Pollen
May	Cutting of useless branches and cleaning of Date palm
June	Final preparation (cleanness of fruit)

Table-15 Post-Harvest Procedures

<table>
<tr><th>Months</th><th colspan="2">Procedure</th></tr>
<tr><td rowspan="6">(Sindh)
July-Aug

(Balochistan)
July- Mid Sept</td><td colspan="2">Cutting of Crop/Fruit</td></tr>
<tr><td colspan="2">Transportation of produce (Form to initial Processing area)</td></tr>
<tr><td colspan="2">Separation of mature dates (dungs (soft) for dates & dokkas (hard) for dry dates)</td></tr>
<tr><td colspan="2">Initial processing of dates/dry dates</td></tr>
<tr><td>Dungs (soft) to soft fresh dates
a) Cleaning
b) Drying
c) Sorting
d) Re-Cleaning
e) Packing</td><td>Dokkas (hard) to dry dates
a) Washing
b) Boiling
c) Drying
d) Packing</td></tr>
<tr><td colspan="2">Packing of Soft Fresh/Dry Dates</td></tr>
<tr><td colspan="2">Transportation of produce to Markets or Cold stores</td></tr>
</table>

Initial Preparation and Cleaning of Date palm

Pollination of Date palm

Formation & Cutting of Date palm bunches

Final preparation in Pre harvesting

Cutting of Crop/Fruit

Transportation of produce (Form to initial Processing area)

Separation of mature dates

Making dry dates or Chohara

Dates Dryer Tunnel

Drying of Dates under Sun

Packing of Dates in wooden boxes/bags

Transportation of produce to Dates Markets

VII. DATES SUPPLY / VALUE CHAIN

Global-Dates Supply Chain

There are no universal sets of supply chains in Date sector because each country has its own regulations and channels, different actions and players are involved and operate differently under different sets of activities and procedures. Traditional production and distribution systems dominate value chains for dates in many countries like Pakistan but here we will discuss the value chains of those countries that have modernized sustainable systems and expanding date exports like UAE and KSA. These countries are an important stage in both the traditional and modern methods of dates supply chains and passing through two avenues:

a) To directly local wholesale markets (Traditional Method): Where the producers sell their dates after harvesting directly to wholesalers in the local markets localized in the production areas or in the neighboring markets without any further processing such as sorting, grading and washing etc. and from there to the processing factories for processing and packaging before being shipped to the retailers, traders and then to the final consumer (local or export).

b) **To directly Dates Factories (Modern**

Pakistan-Dates Supply Chain

In Pakistan, contractors are an important parts of the date supply chain and played major role between the date farmers and commission agents/ wholesalers/ exporters/ processors in pre-harvest operations. Many date growers sell their gardens in their entirety before harvesting to contractors, as early as at the pollination stage because of scarce availability of credit, labour, storage houses and the large distance to the nearest market. The contractors took loans from commission agents/wholesalers to pay the contract money to date orchard owners and costs for labour, storage, transportation and drying/processing of dates into dried form (Chuhara), they either sold dates through them (commission agent) or paid back loans and interest after selling their produce. It was observed that contractors often knew more about date sale, resource use, and market access than growers. However, in some cases hawkers were buying dates directly at the farm gate from date growers/ contractors/ small wholesalers within the district and moved from street to street to sell dates. In the dates market chain, wholesalers also work as intermediaries between growers/contractors, retailers/buyers and processors/packers/exporters. In the absence

Method): In general, the dates delivered to the factories are of the best quality as the date palm producers deliver their products to the local existing factories under pre-fixed norms and standards fixed by the factory. The price is fixed on the basis of quality of the fruits and the supplied quantities.

In the export channel, dates are sold directly to the processing factories for processing and packaging before being shipped to export markets. The dates are produced, harvested, sorted, graded, processed, packaged, and transported in an efficient, safe, and with high quality management. This process determines the final market value of the dates, as shown in following Figure.

of government fixed prices, wholesalers controlled prices on wholesale market according to offer and demand. Most of the date exporters/processors in Pakistan work as a wholesaler and owned small shops in wholesale markets/dates markets to bought the dates for processing, packaging and exports. The dates are washed, sorted, graded, processed, packaged and exported to earn foreign exchange for the national exchequer. The low revenues for the producer is a general characteristic of the date fruit marketing sector in Pakistan, where farmer's share of the consumer price is about one fourth while the remaining share goes to commission agents, contractors, wholesalers, retailers and exporters.

Figure 4 Date Supply Chain in UAE and KSA

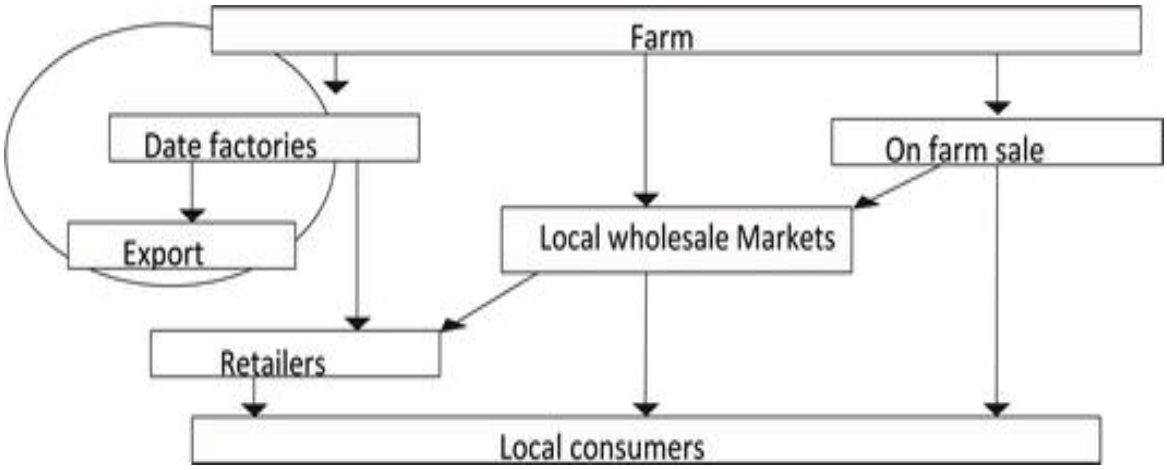
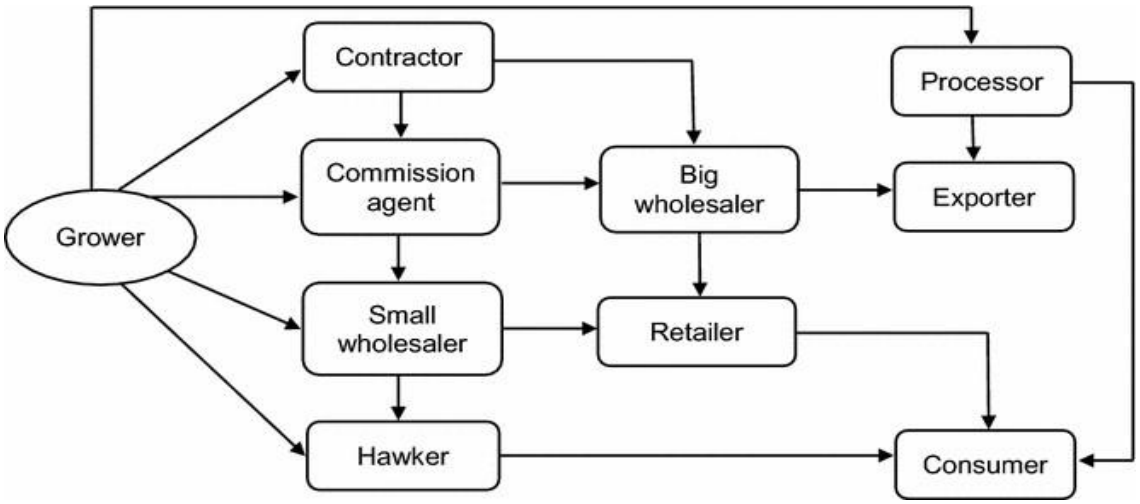
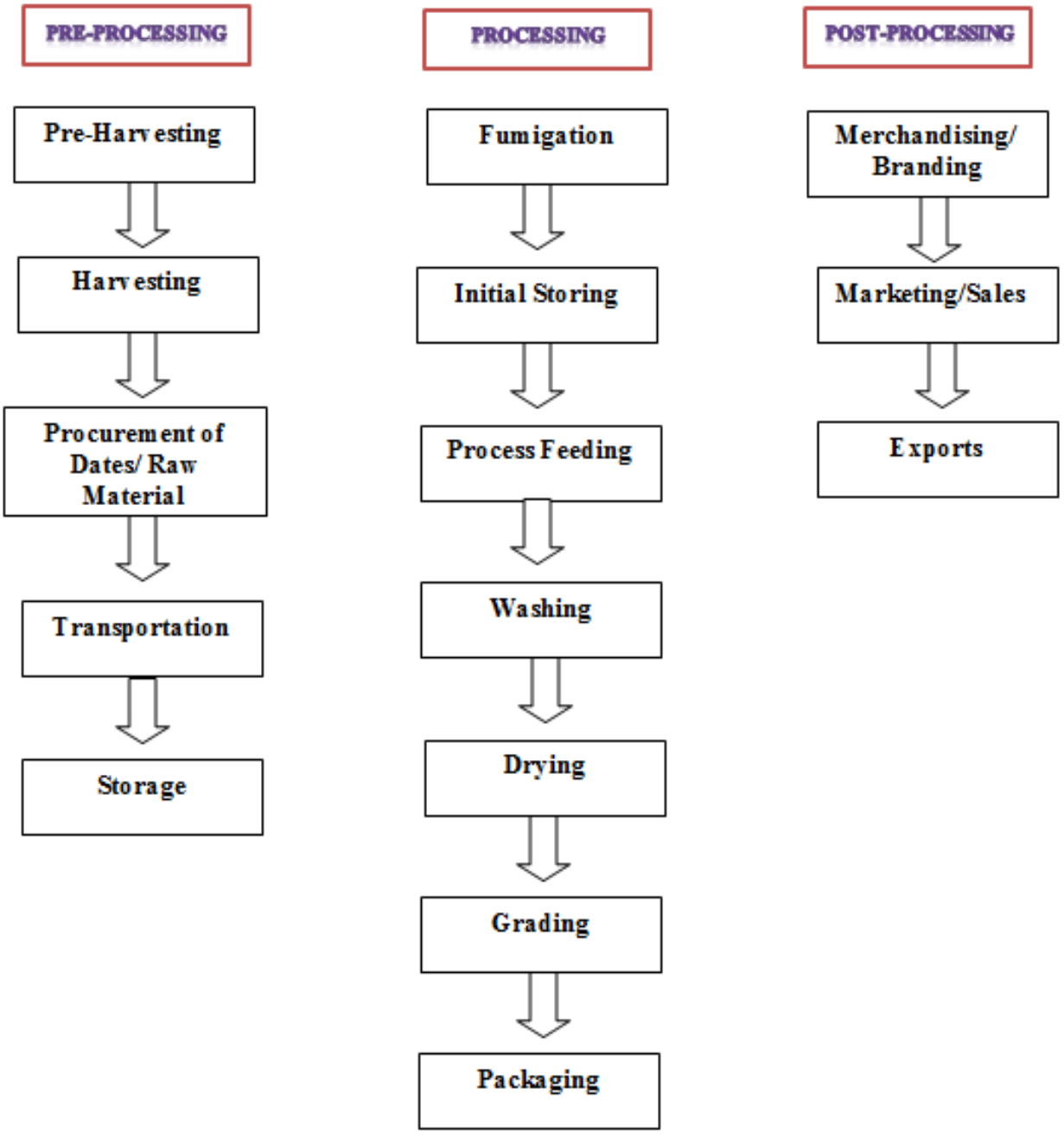


Figure 5 Date Supply Chain in Pakistan



Pakistan Dates Value Chain



VIII. GLOBAL DATES CONSUMPTION

Table-16 Global Dates Consumption (country-wise)

Year	**Fruit Consumption** (Million Tons)	**Industrial Consumption** (Million Tons)	**Global Consumption** (Million Tons)	**Country**	**Consumption (Million Tons)**		
					2018	**2019**	**2020**
2016	0.927	5.91	**6.84**	Egypt	1.4752	1.5315	1.5905
2017	1.011	6.06	**7.07**	KSA	1.3006	1.4041	1.3603
2018	1.111	6.57	**7.68**	Iran	1.0522	1.0448	0.9750
2019	0.875	7.05	**7.92**	Algeria	0.9337	0.9254	0.9160
2020	0.975	7.18	**8.15**	Pakistan	0.3186	0.4734	0.4498
				Sudan	0.3696	0.3956	0.4204
Source: FAO Statistics				Iraq	0.2752	0.2901	0.3988
				India	0.4244	0.2766	0.3631
				Oman	0.2415	0.2420	0.2254
				China	0.1559	0.1564	0.1567
				Morocco	0.1286	0.1223	0.1321
				Tunisia	0.1033	0.1010	0.1230
				Yemen	0.0761	0.1047	0.1195
				Kuwait	0.1043	0.1172	0.1190
				Libya	0.1035	0.0981	0.0970

Table-17 Pakistan Dates Consumption / Wastage / Exports/Imports / Surplus (2019-20)

Production 2019-20 (Tons)	Imports 2019-20 (Tons)	**Total Dates Quantity 2019-20 (Tons)**	Consumption 2020 (Tons)	Exports 2019-20 (Tons)	**Total Dates Consumption 2019-20 (Tons)**	Surplus /Wastage 2019-20 (Tons)
564,900	5,551	**570,451**	449,800	93,454	**543,254**	**27,197**
AIMS	PBS	SUM	FAO	PBS	SUM	SUM

IX. GLOBAL TRADE - DATES (EXPORTS / IMPORTS)

Table-18 HS Code Description-Dates

S #	HS-CODE	DESCRIPTION
01	080410	Fresh or Dried Dates
02	08041010	Dates Fresh
03	08041020	Dates Dried

Table-19 Global (Exports / Imports) Fresh or Dried Dates (080410)

Description	**2017**		**2018**		**2019**		**2020**		**2021**	
	'000 Tons	**Values USD M**	**'000 Tons**	**Values USD M**	**'000 Tons**	**Values USD M**	**'000 Tons**	**Values USD M**	**'000 Tons**	**Values USD M**
Exports	1,377.7	1,667.1	1,490	1,924.2	1,383	2,138.2	1,606.4	2,135	1740.1	**2,417.1**
Imports	1,242.3	1,556.8	1,416.5	1,763.3	1,334.8	1,962.2	1,478.3	1,876	1,767.7	**2,036.5**
Source: Trade Map										

Table-20 Top Global Dates Exporting Countries-2021

S. #	Exporters	Values USD M	Quantities ('000 Tons)	Share (%)
01	KSA	322.84	224.26	13.4
02	Israel	317.07	-	13.1
03	Iran	305.23	348.32	12.6
04	UAE	272.02	261.42	11.3
05	Tunisia	255.90	118.67	10.6
06	Algeria	141.85	160.40	5.9
07	Iraq	124.47	313.08	5.1
08	USA	116.79	21.27	4.8
09	Netherlands	68.80	12.54	2.8
10	Pakistan	52.11	121.24	2.2
11	Palestine	50.68	9.14	2.1
12	Egypt	49.76	11.39	2.1
13	Jordan	45.80	13.19	1.9
14	France	38.87	12.70	1.6
				Source: Trade Map

Table-21 Top Global Dates Importing Countries-2021

S. #	Importers	Values USD M	Quantities ('000 Tons)	Share (%)
01	India	240	475	12
02	Morocco	202	113	10
03	UAE	143	159	7
04	France	114	46	6
05	Germany	86	29	4
06	USA	84	27	4
07	UK	80	26	4
08	Indonesia	69	50	4
09	Netherlands	65	18	3
10	Malaysia	65	26	3
11	Türkiye	64	56	3
12	Canada	62	17	3
13	Italy	47	18	2
14	Spain	42	13	2
				Source: Trade Map

Table-22 Global Date Average Prices - Country wise

Country	Unit Price (USD/Ton)		Average Price (USD/Ton)
	Min. Price	Max. Price	
Saudi Arabia	417	10,200	1,434
Iran	**357**	**3,211**	**876**
UAE	285	24,333	1,041
Tunisia	373	7,000	2,156
Algeria	366	6,500	886
Iraq	**NA**	**NA**	**398**
USA	1,500	10,250	5,491
Israel	**NA**	**NA**	**NA**
Netherlands	2,000	20,000	5,488
Pakistan	**250**	**2,000**	**430**
			Source: Trade Map

X. PAKISTAN DATES EXPORTS

Pakistan's success is evident not only in date producing countries, but also in rankings as the 10th largest dates exporter with 2.2% world market share in 2021. According to PBS data, in 2021-22 total date export of Pakistan was $ 53 M with quantity 136,000 tons, wherein the fresh date export was $ 16 M (30.2 %) with quantity 18,652 tons and the dry date export was $ 36.4 M (68.8%) with quantity 117,000 tons.

Top export destinations of Pakistan fresh dates in 2021 were, i) United Kingdom with a share of 17.5% (3.1 million US$), ii) Germany with a share of 17% (2.9 million US$), iii) Turkey with a share of 11% (2.8 million US$), iv) USA with a share of 9% (1.83 million US$), v) Australia with a share of 8% (1.6 million US$).

Top export destinations of Pakistan dry dates in 2021 were, i) India via United Arab Emirates with a share of 86% (31 million US$), ii) Bangladesh with a share of 4% (1.56 million US$), iii.) Nepal with a share of 1.6% (0.6 million US$).

Pakistani dates are mainly regarded as industrial dates in global markets and exports are virtually dependent on export of dry dates 75-80% and 20-25% in the form of fresh dates. India was the major market of Pakistan's dry dates but the trade was formally suspended in 2019 due to imposition of 200% custom duty by India on Pakistani products. As a result of this ban the export of dates, especially dry dates to India was badly affected. The vacuum in supply of dates in Indian market was immediately filled by trade diversion from UAE, Iran and Iraq. Pakistani exporters immediately shifted to common grounds, i.e. UAE, Nepal and Bangladesh, where product is exported, stocked and re-exported to India.

Table-23 Pakistan Dates Export

COMMODITY	EXPORT VALUES									
	2017-18 (JULY-JUNE)		2018-19 (JULY-JUNE)		2019-20 (JULY-JUNE)		2020-21 (JULY-JUNE)		2021-22 (JULY-JUNE)	
	Tons	US$ M	Tons	US$ M	Tons	US$ M	Tons	US$ M	Tons	US$ M
Fresh Dates	18,089	17.53	16,178	15.88	22,639	20.22	21,178	16.98	**18,652**	**15.71**
Dried Dates	140,260	88.00	97,778	75.06	70,815	52.14	113,265	39.43	**117,587**	**36.41**
EXPORTS	158,349	105.54	113,956	90.94	93,454	72.36	134,443	56.41	**136,239**	**52.12**

Source: Pakistan Bureau of Statistics (PBS)

Table-24 Pakistan Fresh/Dry Dates Export Markets Analysis

Pak Top Markets	Total Import of country (2021)	Pakistan Share in Imports (2021)	Pakistan Dates Exports to specific country							Leading Competitors	Competitor's share in imports (2021)
	$ M	%	2019-20		2020-21		2021-22		CAGR (2019-22)		
			MT	$ M	MT	$ M	MT	$ M			
Fresh Dates Market (08041010)											
Germany	88.83	3.6%	2,892	2.5	2,404	2.22	3,607	3.3	0.10%	Tunisia	48 %
										Israel	12%
										Iran	5.8%
UK	80.5	9.1%	4,671	4.1	5,050	4.08	3,250	2.7	-0.13%	Israel	30%
										Tunisia	9.2%
										UAE	9%
Australia	15.6	9.2%	1,563	1.6	1,210	1.18	1,569	1.6	0.00%	Iran	19.4%
										Israel	17.3%
										USA	13.3%
USA	84	2.8%	2,703	2.6	1,777	1.65	1,594	1.6	-0.15%	Tunisia	17.7%
										Israel	13.9%
										Algeria	12.6%

Turkey	63.8	3.2%	2,577	2	2,840	1.93	2,087	1.4	-0.11%	Iran	20%
										KSA	16.1%
										Tunisia	15.5%
Sri Lanka	12.5	13.6%	778	0.6	969	0.87	1,728	1.5	0.36%	UAE	67.3%
										KSA	12.8%
										Egypt	1.5%
Canada	62.2	1.7%	635	0.7	630	0.7	547	0.7	0.00%	USA	41.6%
										Israel	14.1%
										Iran	7.1%
Denmark	13.5	3.3%	642	0.6	633	0.42	897	0.7	0.05%	Iran	28%
										Netherland	20.4%
										Tunisia	8.4%
South Africa	7.2	9.4%	571	0.6	618	0.6	522	0.5	-0.06%	Namibia	57.7%
										KSA	17.7%
										Iran	6.2%
Japan	8.1	9.3%	182	0.2	550	0.3	581	0.4	0.26%	USA	31%
										Tunisia	24.2%
										Iran	14.2%
Dry Dates Market (08041020)											
UAE	136.5	4.4%	35,289	27	100,224	33	114,761	35	0.09%	KSA	65%
										Iraq	14.4%
										Iran	3.6%
Bangladesh	62.2	2.6%	1,760	1.3	3,915	2	1,004	0.5	-0.27%	UAE	85%
										KSA	6.8%
										Algeria	2.5%
Nepal	6.5	No Trade								UAE	26.7%
										Tunisia	3.5%
										-	-
India	240.3	No Direct Trade								Iraq	37.5%
										UAE	34.8%
										Iran	14%
Source	**Trade Map**				**PRAL Data**					**Trade Map**	

XI. EXPORT POTENTIAL MARKETS - PAKISTAN DATES

S#	Potential Markets	Remarks
Fresh Dates Potential Markets		
1	**Germany**	Germany is also the 5th largest importer of dates in the world with total import value $ 89 million. It is the 2nd largest consumer of our industrial dates (Aseel) with 0.10% value growth in 4 years (2019-22). Our leading competitors are Tunisia (48%), Israel (12%) and Iran (5.8%). The EU has extended Pakistan's GSP plus status for two years, while our competitors Tunisia, Iran and Algeria are facing 7.70% tariffs in this market.
2	**UK**	UK is the 7th largest importer of dates in the world with total import value of $ 80.5 million. It is the 1st largest consumer of our industrial dates (Aseel) with negative -0.13% value decrease in 4 years (2019-22). Our leading competitors are Israel (30%), Tunisia (9.2%) and UAE (9%). Through the slight marketing efforts by incoming/outgoing date exporter's delegations we can capture some share of our competitors in UK.

3	**Turkey**	Turkey is among the largest importer of our dates. The total date market of turkey is $ 63.8 million. Our leading competitors are Iran (20%), KSA (16%) and Tunisia (15.5%). To capture the competitor's share, the date sector should be included in the existing FTA with Turkey, as we are facing 25% tariffs in Turkish market.
4	**USA**	USA is $84 million market of dates, while our export share in 2021 was 2.8%. Our leading competitors are Tunisia (17.7%), Israel (13.9%) and Algeria (12.6%). Also, the USA is among the top destinations of dates exports for processing purpose from Pakistan but the fresh dates of Pakistan for table fruit are not an approved commodity for import in the USA market, while the Pakistan has a lot of potential to export the table dates to USA.
5	**Australia**	Australia is $ 15.5 million market of dates and our export share is 9.2% with constant value growth. Our major competitors are Iran (19.4%), Israel (17.3%) and USA (13.3%). Pakistani date exporters can easily get Iran's share of 19.4% through regularly participating in Fine Food Australia and other food related exhibitions in this market.
6	**Sri Lanka**	Sri Lanka is among the largest importer of our Aseel dates, Pakistan exported around $ 1.5 million worth dates with 13.6% market share. The total dates market of Sri Lanka was $ 12.5 million in 2021, UAE (67.3%), KSA (12.8%) and Egypt (1.5%) are the major competitors of our dates in Sri Lankan market. However, Sri Lankan delegation visited Pakistan and showed great interest in fresh organic dates rather than the dried dates, in 2019.
7	**Indonesia**	Indonesia is the 8th largest importer of dates in the world with total import value of $69 million. The share of Pakistani dates is negligible and our competitors are Egypt (35.4%), Tunisia (19.3%), UAE (16.7%) and Iran (5.6%). However, with the slight marketing efforts and considering the friendly relations with Indonesia we can penetrate and capture the shares of our competitors by sending date exporters delegations.
8	**Japan**	Japan imported around $ 8 million worth dates from the world, majorly from USA (31%), Tunisia (24%) and Iran (14.2%). In 2021, Pakistan exported around $ 0.4 million dates to Japan with 9.3% market share. The Otafuku – Japanese sauce were mostly made from Pakistan Aseel dates industrial grade in Japan.
Dry Dates Potential Markets		
9	**India**	On a global scale, India is the biggest importer of dates, with a total import value of $241 million. The primary sources of import for India are Iraq, accounting for 37.5% of the supply, followed by the UAE at 34.8%, and Iran at 14%. Historically, Pakistan used to be the largest supplier of dry dates to India. However, India imposed 200% customs duty on imports from Pakistan in February, 2019 and Pakistan formally suspended trade with India in August 2019 under SRO 927(I)/2019.
10	**UAE**	It is the 3rd largest market of dates with $ 136.5 million imports in the world. Pakistan has increased export of dry dates to UAE from $ 0.6 million in 2018 to $ 39.5 million in 2021. The dry date exporters of Pakistan sending their consignment to India via Dubai, as India was the largest consumers of our dry

		date. UAE, being the world's largest trading hub, our exporters can also develop their businesses with other UAE based importers of different countries through visits and B2B meetings.
11	**Bangladesh**	The total dates import value of Bangladesh was $ 62.2 million in 2021. It is also among the largest consumer of our dry dates (Aseel) and our major competitors are UAE (85%), KSA (6.8%) and Algeria (2.5%). Through the incoming/outgoing delegation of dry date exporters to Bangladesh we can get some good results in dry date exports.
12	**Nepal**	The total dates import value of Nepal was $ 6.5 million in 2020. Pakistan was the largest supplier of this market before 2020 because most of the shipment route goes through Calcutta port India. Since 2020, Nepal has banned the dates trade with Pakistan due to Indian monopoly in the dry dates market.

XII. COMPETITIVENESS OF PAKISTAN DATE SECTOR

Table-25 Prices of Pakistani Dates along with Freight Charges in Major Markets

S#	Country	Prices of Pakistani Dates (FOB-Karachi)		Freight Charges (Estimated)	Time (Rq)
1	**India Via UAE**	Dry Dates	300-500 $/ton (All varieties)	600 $/20′ FT-CTR (18Tons) 900 $/40′ FT-CTR (27.5Tons)	15-20 days
2	**India**	Dry Dates	400-500 $/ton (All varieties)	**No Trade - SRO 927(I)/2019** **Before 2019** through Wagha 215 $/40′ FT-CTR (27.5Tons)	5-6 days
3	**UAE**	Dates	1000-1200 $/ton (A-grade pitted) 300-350 $/ton (C-grade unpitted)	260 $/20′ FT-CTR (18Tons) 445 $/40′ FT-CTR (27.5Tons)	4-5 days
4	**Germany**	Dates	700-800 $/ton (Industrial-grade pitted)	1030 $/20′ FT-CTR (18Tons) 1230$/40′ FT-CTR (27.5Tons)	1 month +
5	**USA**	Dates	1000-1100 $/ton (A-grade pitted) 700-750 $/ton (Industrial-grade pitted)	1860 $/20′ FT-CTR (18Tons) 2160$/40′ FT-CTR (27.5Tons)	35+ days
6	**UK**	Dates	800-1100 $/ton (All grades pitted)	1500 $/20′ FT-CTR (18Tons) 2110$/40′ FT-CTR (27.5Tons)	1 month +
		Dry Dates	500-600 $/ton (All varieties)		
7	**Turkey**	Dates	500-600 $/ton (All grades pitted)	1050 $/20′ FT-CTR (18Tons) 1250$/40′ FT-CTR (27.5Tons)	1 month
8	**Australia**	Dates	900-1000 $/ton (All grades pitted)	3630$/20′ FT-CTR (18Tons) 6730$/40′ FT-CTR (27.5Tons)	40+ days
9	**Netherlands**	Dates	900-1000 $/ton (Chopped dates)	1030 $/20′ FT-CTR (18Tons) 1230$/40′ FT-CTR (27.5Tons)	1 month
10	**Nepal**	Dry Dates	400-500 $/ton (All varieties) Dates Import Banned by Nepal Govt.	**No Trade (Banned)** **Before 2020** through Wagha At Calcutta port: 650$ Through train to Nepal: 1500$ /20′ FT-CTR (18Tons)	1 Month +
11	**Bangladesh**	Dates	700-900 $/ton (All grades pitted)	1650 $/20′ FT-CTR (18Tons) 1750$/40′ FT-CTR (27.5Tons)	20+ days
		Dry Dates	500-600 $/ton (All varieties)		
12	**Denmark**	Dates	700-800 $/ton (All grades pitted)	1200 $/20′ FT-CTR (18Tons) 1580$/40′ FT-CTR (27.5Tons)	1 month+
13	**Sri Lanka**	Dates	850-900 $/ton (All varieties)	850 $/20′ FT-CTR (18Tons) 950 $/40′ FT-CTR (27.5Tons)	6-7 days
Source: Exporters of Dates/Dry Dates and Freight Forwarder of Dates Exporter					

Table-26 Tariff / Duties on Dates product – country wise (competitors) analysis

S#	Import Markets	(1) Pakistan	(2) Iran	(3) KSA	(4) UAE	(5) Iraq	(6) Egypt
1	**India** HS:080410	Duty-200% Social Welfare-10% GST-12%	MFN-25%	MFN-25%	MFN-25% Applied-0%	MFN-25%	MFN-25%
2	**UAE** HS: 08041010	MFN-0%	MFN-0%	MFN-0%	-	MFN-0%	MFN-0%
3	**UK** HS: 0804100030	MFN-6% App-0%	MFN-6%	MFN-6%	MFN-6%	MFN-6%	MFN-6% Pref-0%
4	**Germany** HS: 0804100030	MFN-7.70% Pref-0%	MFN-7.70%	MFN-7.70%	MFN-7.70%	MFN-7.70%	MFN-7.70% Pref-0%
5	**Canada** HS: 08041000	MFN-0%	MFN-0%	MFN-0%	MFN-0%	MFN-0%	MFN-0%
6	**Turkey** HS:080410000000	MFN-25%	MFN-25%	MFN-25%	MFN-25%	MFN-25%	MFN-25%
7	**Bangladesh** HS: 08041011	MFN-0%	MFN-0%	MFN-0%	MFN-0%	MFN-0%	MFN-0%
8	**Sri Lanka** HS: 08041010	MFN-10% Rs.30 per kg Pref-0%	MFN-10% Rs.30 per kg	MFN-10% Rs.30 per kg	MFN-10% Rs.30 per kg	MFN-10% Rs.30 per kg	MFN-10% Rs.30 per kg
9	**Australia** HS: 08041000	MFN-0%	MFN-0%	MFN-0%	MFN-0%	MFN-0%	MFN-0%
10	**Nepal** HS: 08041010	MFN-10% Pref-6%	MFN-10%	MFN-10%	MFN-10%	MFN-10%	MFN-10%
11	**USA** HS: 08041020	MFN-3.98% Pref-13.2 C/kg	MFN-3.98% Pref-13.2 C/kg	MFN-3.98% Pref-13.2 C/kg	MFN-3.98% Pref-13.2 C/kg	MFN-3.98% Pref-13.2 C/kg	MFN-3.98% Pref-13.2 C/kg
12	**Poland** HS: 0804100030	MFN-7.70% Pref-0%	MFN-7.70%	MFN-7.70%	MFN-7.70%	MFN-7.70%	MFN-7.70% Pref-0%
13	**Denmark** HS: 0804100030	MFN-7.70% Pref-0%	MFN-7.70%	MFN-7.70%	MFN-7.70%	MFN-7.70%	MFN-7.70% Pref-0%
14	**South Africa** HS: 08041010	MFN-0%	MFN-0%	MFN-0%	MFN-0%	MFN-0%	MFN-0%
15	**Malaysia** HS: 0804100000	MFN-0%	MFN-0%	MFN-0%	MFN-0%	MFN-0%	MFN-0%
16	**Indonesia** HS:080410	MFN-5% Applied- 0%	MFN-5%	MFN-5%	MFN-5%	MFN-5%	MFN-5%

S#	Import Markets	(7) Israel	(8) USA	(9) Tunisia	(10) Algeria
1	**India** HS:080410	MFN-25%	MFN-25%	MFN-25%	MFN-25%
2	**UAE** HS: 08041010	MFN-0%	MFN-0%	MFN-0%	MFN-0%
3	**UK** HS: 0804100030	MFN-6%	MFN-6%	MFN-6%	MFN-6% Pref-2.50%
4	**Germany** HS: 0804100030	MFN-7.70% Pref-0%	MFN-7.70%	MFN-7.70%	MFN-7.70%
5	**Canada** HS: 08041000	MFN-0%	MFN-0%	MFN-0%	MFN-0%
6	**Turkey** HS:080410000000	MFN-25%	MFN-25%	MFN-25%	MFN-25%
7	**Bangladesh** HS: 08041011	MFN-0%	MFN-0%	MFN-0%	MFN-0%
8	**Sri Lanka** HS: 08041010	MFN-10% Rs.30 per kg	MFN-10% Rs.30 per kg	MFN-10% Rs.30 per kg	MFN-10% Rs.30 per kg
9	**Australia** HS: 08041000	MFN-0%	MFN-0%	MFN-0%	MFN-0%
10	**Nepal** HS: 08041010	MFN-10%	MFN-10%	MFN-10%	MFN-10%
11	**USA** HS: 08041020	MFN-3.98% Pref-0%	-	MFN-3.98% Pref-13.2 C/kg	MFN-3.98% Pref-13.2 C/kg
12	**Poland**	MFN-7.70%	MFN-7.70%	MFN-7.70%	MFN-7.70%

	HS: 0804100030	Pref-0%			
13	**Denmark** HS: 0804100030	MFN-7.70% Pref-0%	MFN-7.70%	MFN-7.70%	MFN-7.70%
14	**South Africa** HS: 08041010	MFN-0%	MFN-0%	MFN-0%	MFN-0%
15	**Malaysia** HS: 0804100000	MFN-0%	MFN-0%	MFN-0%	MFN-0%
16	**Indonesia** HS: 08041000	MFN-5%	MFN-5%	MFN-5%	MFN-5%
Source: ITC Market Access Map					

Table-27 Pre and Post Harvesting Cost Structure of Dates Sector in Pakistan

Pre and Post Harvesting Cost (Khairpur-Thehri)					
1	**Pre-Harvest Expenses**				
	Months	**Description**			**Cost**
	Nov-Feb	Initial Preparation and Cleaning of Date palm			70 Rs/tree (labour)
	Feb-March	Pollination of Date palm	Pollen material		60 Rs/tree (pollen)
			Labour charges		30 Rs/tree (labour)
	April-May	Formation of Date palm bunches			35 Rs./tree (labour)
	May	Cutting of useless branches and cleaning of Date palm			30 Rs/tree (labour)
		Transportation of useless branches (Form to initial Processing area)			15 Rs/tree (freight) (according to distance)
	May-June	Additional costs	Pesticide (liquid)		30 Rs/tree (pesticide)
			Labour charges		30 Rs/tree (labour)
	June	Final preparation (cleanness of fruit)			15 Rs/tree (labour)
2	**Post-Harvest Expenses**				
	Months	**Description**			**Cost**
	July-Aug	Cutting of Crop/Fruit			35 Rs/tree (labour)
		Transportation of produce (Form to initial Processing area)			100 Rs/tree (freight) (according to distance)
		Separation of mature dates (dungs for dates & dokkas for dry dates)			60 Rs/tree (labour)
		Initial processing of dates/dry dates			800 Rs/day/hand (labour)
		Dungs to soft fresh dates f) Cleaning g) Drying h) Sorting i) Re-Cleaning j) Packing	Dokkas to dry dates e) Washing f) Boiling g) Drying h) Packing		
		Additional Requirements	Boiler (one time purchase for 8 years)		15000-20000 Rs/boiler
			Wood for boilers		550 Rs/mun (40kg)
			Mats for drying		150 Rs/mat
			Rang Kath for coloring dry dates (if)		30000 Rs/50kg bag
		Packing Requirements	Dry Dates	Jute bags (90kg)	140 Rs/bag
			Soft Dates	Wooden boxes (35kg)	250 Rs/box
				Poly bags	04 Rs/bag
				Newspapers	05 Rs/35kgs bag
		Transportation to Markets or Cold stores	Dry Dates	Jute bags (loose-90kg)	50 Rs/bag (freight)
			Soft Dates	Wooden boxes (35kg)	40 Rs/box (freight)

Source: Progressive Dates Growers

Table-28 Dates Processing Cost Structure in Pakistan

Processing Cost Date Factory (Khairpur-Thehri)				
S#	**Description**		**Costs**	
1	Purchasing of Dates (Wholesale Market)		2000-12000 Rs/mun (40kg) (cost as per variety)	
2	Transportation (Market to Factory)	Loading cost	10 Rs/box of 35kg	(Avg.) 01 Rs/kg
		Freight cost	12 Rs/box of 35kg	
		Unloading cost	10 Rs/box of 35kg	
3	Fumigation of purchased Stock	Fumigation tablets	2000 Rs/18000kgs	(Avg.) 0.1 Rs/kg
4	Factory Warehouse /Cold Store to Washing & Pitting Section	Labour cost	02 Rs/kg	
		Washing & Pitting Cost of Dates		
		In-house cost	12 Rs/kg	
		Out-source cost	07 Rs/kg	
		Fumigation of pitted dates after return from outsource		
5	Factory Washing & Pitting Section to Grading Section	Labour cost	01 Rs/kg	
		Grading Cost of Dates		
		Grading cost	04 Rs/kg	
6	Factory Grading Section to Packaging Section	Labour cost	01 Rs/kg	
		Packaging & Material Cost		
		Labour	02 Rs/kg	(Avg.) 15.30 Rs/kg
		Cartons cost	90 Rs/carton	
		Poly bags	04 Rs/bag	
		Packing tape	100 Rs/roll	
7	Factory Packaging Section to Dispatch Section	Fumigation of packed dates at **Dispatched Section**		
8	Transportation (Khairpur to Karachi)	Loading cost	5000/- Rs/container	(Avg.) 2-2.5 Rs/kg
		Freight cost	20000-30000/- Rs/container	
9	Additional Expenses	Utilities cost	05 Rs/kg	
		Other cost (Staff)	02 Rs/kg	

Source: Dates Factory-Khairpur

Table-29 Dates Processing Factories & Dry Date Warehouses in Pakistan

28 Dates Processing Factories in Khairpur Sindh		**02** Dates Processing Factories in Balochistan	
Dates Processing Factories	***Annual Processing of Dates (Avg./Year)***	***Dates Processing Factories***	***Annual Processing of Dates (Avg./Year)***
04	200-250 Containers of 18 Tons	01 (Punjgor)	1000 Tons
05	150-170 Containers of 18 Tons	01 (Turbat)	600 Tons
06	Below 100 Containers of 18 Tons	**250-300** Dry Dates Warehouses in Sukkur Sindh	
05	Below 50 Containers of 18 Tons	***Functional Warehouses***	***Annual Procurement of Dry Dates (Avg./Year)***
08	05-10 Containers of 18 Tons	40-50	1800-2000 Tons

Source: Exporters/Traders of Dates and Dry Dates

Table-30 Dates (Specific) Cold Storage Facilities in Pakistan

06 Commercial Cold Stores for Dates in Khairpur		**17** Private Cold Stores in Dates Factories-Khairpur	
Commercial Cold Stores	***Capacity (Avg.)***	***Cold Stores***	***Capacity (Avg.)***
01	7000 – 8750 Tons	17	300-350 Tons
01	3500 – 5250 Tons	**04** Conventional Cold Stores for Dates in Sukkur	
01	2800 – 3150 Tons	04	1050 – 1750 Tons
01	1750 – 2100 Tons	**22** Commercial Cold Stores for Dates in Balochistan	
02	1050 – 1225 Tons	01	1000 Tons
		21 (Small)	20-22 Tons

Source: Exporters/Traders of Dates and Dry Dates

Figure-6 Global Food Quality Standards & Certifications Accredited by Pakistani Dates Exporters

Table-31 Food Quality Certifications and Tests in Pakistan

Certificates/Test	Authority
Sanitary & Phytosanitary Tests/Certifications (Pest Control Certificate, Sanitary Certificate and Health Certificate)	Ministry of National Food Security & Research **Department of Plant Protection (DPP)**
Food Quality Microbiological Tests (if required by buyer)	Ministry of Science and Technology **Pakistan Council of Scientific & Industrial Research (PCSIR)**
Pakistan Standards and ISO Certifications	Ministry of Science and Technology **Pakistan Standards & Quality Control Authority (PSQCA)**

XIII. PAKISTAN DATES SECTOR CHALLENGES

Pre-processing Challenges

- Unavailability of fine and commercial varieties of date palm like Ajwa, Medjool, Deglet Nour etc.
- Effect of monsoon rains and floods on production of dates in Pakistan
- Massive conversion of soft dates into dried form due to monsoon rains during harvesting
- Poor pre and post-harvest management and techniques, Inadequate knowledge of dates farming and handling among growers/laborers
- Lack of modern and specialized technology equipment for dates cropping and cultivation
- Poorly developed transportation infrastructure from dates orchards to wholesale markets
- Nominal profit and price of produce due to fixing of rate by wholesaler/commission agent, Financial constraints on progressive date palm growers/contractors
- Lack cold storage facilities for the products i.e. Fresh Dates & Dungs
- Lack of R&D in pre and post harvesting procedures of dates

Processing Challenges

- Traditional methods of processing and grading of dates in Pakistan
- Unavailability of modern and commercial i) Dates Processing plants ii) Dates value addition plants for syrup, paste, powder etc. iii) Dates specific cold storage facilities iv) modern and international standards packaging plants for dates exports
- Electric/Gas supply interruption and load-shedding in dates processing factories

Post-Processing Challenges

- Low value addition of dates to produce syrup, paste and powder etc.
- Lack of superior branding and merchandising of the product
- Poor presentation of the produce, mainly Table Dates of Pakistan
- Improper and unattractive packaging of dates for export
- No attempt and interest for market diversion expect India - access to new potential markets existence
- Inadequate and insufficient marketing of the product
- Insufficient knowledge of dates export procedures/documentations and unawareness of global food safety standards & certifications (HACCP, Kosher, Euro GAP, Global Gap, IFS)
- Irritating and additional fumigation processes and restraints by Department of Plant Protection (DPP)

Technical & Logistic Barriers

- 15% tariffs in Turkey dates market despite of FTA with the country
- Impact of high sea freight on the price competitiveness of the Pakistani dates in different global markets
- Increase in local transportation cost from Sukkur to Karachi and from Balochistan to Sukkur
- Despite the fact that dried dates are sold at a cheaper price as compared to fresh dates, the growers are reluctant to sell dried dates because of easy processing and quick disposal through exports to India via Dubai after suspension of direct trade with India in Feb 2019
- Excessive and unnecessary rates quotation by freight forwarding agents

XIV. EXPORT DEVELOPMENT PLAN - PAKISTAN DATES SECTOR

Short Term/Immediate Actions:

S#	Issues	Proposed action
01	Opening of Indian Border i.e. Wagah Border for Dry Dates (75-80%) exports	As the exporters have to face heavy transportation cost and extra transit days for export to India via UAE, since very few exporters are exporting dry dates through this route. The MoC may take up this matter with the Ministry of Interior and other related Ministries on immediate basis.
02	Freight Subsidy on export of Dates	After imposition of 200% duty, most of the Dry Dates are exported to India via Dubai which is quite expensive. Besides, due to high sea freight cost which has risen at least 5 to 6 times higher had a very negative impact on the price competitiveness of the Pakistani Dates in different global markets. Freight subsidy especially for the export of dates may be considered on immediate basis.
03	Dates cargos to Turkey on special subside rates through Islamabad-Tehran-Istanbul freight train services	Our competitor Iran can send one full reefer container by road to Turkey in merely US$1500 and to Europe with an added US$2500. Whereas, our transport cost in a dry container to Europe has risen to US$ 6000 and for reefer it costs around US$7500. Therefore, the NLC the logistic company run by the Pak-Army may be asked to move the Dates cargo to Turkey on special subside rates, so that our exporters can move the cargo by Train to Turkey and then Europe.
04	Date sector should be included in preferential tariff criteria in existing FTA with Turkey	Turkey is among the largest importer of our dates but we are facing 15% tariffs in this markets despite of FTA with the country. To capture the competitor's share in this market; the date sector should be included in the existing FTA Turkey.
05	Dates sector should be included in Re-financing facility of SBP	The SBP does not include the Dates sector in Re-financing facility, this matter may take up with SBP
06	Uninterrupted Electric supply to dates industries in Sukkur region with lowered electric tariffs	The matter may be taken up with WAPDA to ensure uninterrupted electric supply to Dates industries of Sukkur region with lowered electric tariffs, as there are 12 hours of load-shedding in the areas.
07	Capacity building trainings / workshops for Dates sector SMEs and Exporters	Capacity building trainings/workshops for i) pre-processing segments ii) processing segments and iii) post-processing segments through delivering lectures, local visits to other dates growing/processing areas and booklets in local languages (Urdu, Balochi) are mandatory for potential dates growers/processors/ exporters.
08	Extend maximum share and subsidy to dates exporters in TDAP's Agro and Food related International Trade Fairs/Events (80:20)	The market diversification is the first and foremost intervention required in dates sector and exporters of dates may be encouraged through maximum participation in TDAP's Agro and Food international exhibitions with enhanced subsidy (80:20)
09	Fully funded TDAP's (incoming/outgoing) International Delegations	Support may be provided to dates exporters in the exploration of new markets through TDAP's fully funded International

		Delegations (incoming/outgoing). Following outgoing delegations are suggested in 2023-24: i. Fresh Dates (Schengen Countries – Germany, France and Denmark) ii. Dry Dates (Bangladesh)

Medium to Long Term Actions:

S#	Issues	Proposed action
01	Dates Promotion Campaigns through the Pakistan Diplomatic and Commercial missions abroad on regular basis	For promotion of all varieties of Pakistani Dates in New and Potential markets of the world, the Dates Promotion Campaigns through the Pakistan Diplomatic and Commercial missions abroad may be organized on regular basis.
02	Pakistan Dates Show - International exhibition of Dates at Karachi as a regular event	The budget may be sanctioned from EDF for organization of Pakistan Dates Show - International exhibition of Dates at Karachi on regular basis.
03	Interest free loans and dates crop insurance for Dates Sector SMEs	SBP and other financial institutions should create the policy for Interest free / low markup loans particularly for the SMEs of Dates sector and the Dates crop insurance facility may also be devised.
04	Alternative ways to overcome the energy and water crises in Balochistan, specifically Dates clusters areas	Unavailability of water and electricity are common and big obstacles for the processing of dates in all major clusters of Balochistan, therefore concerned federal/provincial government departments may be asked to arrange consultative sessions on alternative ways to overcome the energy and water crises in Balochistan in collaboration with the progressive Dates stakeholders/trade bodies.
05	Development of roads (Dates orchard to market) and transportation infrastructure including installation of cold chain facilities in main Dates orchards of Balochistan	Due to lack of infrastructure (roads, transport and cold storage facilities) in main date growing regions of Balochistan, pre and post-harvest losses are nearly 40-45% of total date production every year. Therefore, the concerned authorities / departments / Balochistan govt. may be asked to develop the infrastructure in Dates orchard of Balochistan, accordingly.

EDF Support Project / Proposals:

S#	Issues	Remarks
01	Establishment of **Two** Commercial Dates processing plants for value added products i.e. paste, syrup and powder along with Packaging solutions 1) at Khairpur, Sindh 2) at Turbat, Balochistan	There is great scope for increasing exports of Pakistani dates, if the country opts for processing dates through modern techniques and pays vigilant attention to packaging and dates by-product manufacturing. Dates are quite a versatile fruit and have a large scope for value addition as is the demand in the world market. However, many countries of the world imported Pakistani dates and re-export after value addition. This helps them in generating high volumes of revenues. It is therefore proposed that in order to counter the re-export of Pakistani dates from the importing countries, the country should focus on enhancing its exports in the fresh dates sector rather than the dried ones, by encouraging investment in the dates processing and value addition areas.

02	Establishment of: a) Common Packaging Facilities at Khairpur and Sukkur b) Commercial Cold Storages in Sukkur / Khairpur and Turbat / Panjgur	Infrastructure support in the form of common processing facilities or PPP model based facilities for preserving, sorting, grading, pitting, polishing, fumigating, value addition and packaging etc. may be established without further delay. If the downstream stakeholders are provided with appropriate processing facilities, overall efficiency of the entire sector will improve, consequently improving the product quality and increased shelf life, which will eventually yield higher revenue generation.
03	Establishment of Dates Auction Market in Turbat district with linked Aggregator Centers in main 5 dates growing regions of Balochistan	Though, the Balochistan province is producing high quality of dates varieties and stood at high ranks in dates production in the country but due to lack of modern farming practices and improper fruit handling techniques (particularly in table dates varieties) during the cutting and transportation of harvest, most of the produce is consumed for industrial processing use at marginal prices even the potential exists for use as table dates. Due to absence of dates and fruit auction market facilities in main dates growing regions of Balochistan, the growers sell their produce at throw away prices to commission agents in the local markets localized in the production areas without any further processing at farm gates. Therefore, the establishment of Dates Auction Market in Turbat district at already proposed land-site by Balochistan government along with linked Aggregator Centers including cold storage facilities and refrigerated transport in main 5 dates growing districts (Panjgur, Awaran, Washuk, Kharan and Khuzdar) of Balochistan are mandatory. In this way, the date growers will definitely improve the quality and standards on yearly basis when they get better prices of their produce in these markets, this will also help to increase the table dates exports from these clusters of Balochistan.
04	Import and adaptation of elite and commercial varieties of date palm plantlets in Pakistan like Ajwa, Medjol, Deglet Nour etc.	a) Although, Pakistan is major producer and exporter of dates, but the commercial production is limited to a few predominant cultivars, such as Aseel, Dhakki, and Begum Jangi which could not be able to gain a significant room as a Table Dates in international date palm trade. b) Monsoon rain is one of the factors that coincides with date palm fruiting stage and cause major loss to the growers. We may need some early and late varieties to reduce the losses caused by rainy season. c) The elite cultivars of the world have a high export potential compared to our local cultivars. A one kg of Ajwa fruit equals to the income of 30 kg of Aseel, a predominant local variety of Khairpur. Also, Pakistan imported many varieties of dates from Saudi Arabia, Iran and UAE to meet the local demand annually. The production of such exotic varieties at local level may reduce the import burden of the country and also very essential to reach as table dates with better prices in the global markets.

XV. CONCLUSION AND RECOMMENDATIONS

After the Government of India's unilateral and unlawful action of revoking the Article 370 of its constitution; thereby changing the constitutional status of the Indian held Kashmir and imposing curfew for an unannounced period in the conflict region, Government of Pakistan formally suspended trade with India in August, 2019. India also imposed 200% customs duty on imports from Pakistan in February, 2019. As a result of this ban and customs duty, the export of dates, especially dry dates to India was badly affected. Since the grower as well as exporter was not ready for this shock and the export market was not diversified enough, the ban resulted in huge availability of surplus dry date stock. Resultantly pushing the private as well as public sector stakeholders to re-visit the export strategies. The vacuum in supply of dates in Indian market was immediately filled by trade diversion from UAE, Iran and Iraq. Pakistani exporters immediately shifted to common grounds i.e. UAE, Nepal and Bangladesh where product is exported, stocked and re-exported to India. If we dig deep into the consumption and export patterns of both fresh and dry dates, it transpires that the major consumption of fresh date is either for use as table date or for industrial purposes (i.e. for production of value added products), while the major use of dry date is for Hindu religious festivals and rituals.

Dates, like any other export product being from Pakistan also face issues of lack of diversification (both product as well as market). Since decades, the Pakistani date grower and exporter are focused on the traditional markets and never looked for new markets or product value addition. Despite the fact that dried date is sold at a cheaper price as compared to fresh date, the grower is reluctant to sell the dried dates because of easy processing and quick disposal through exports. A negligible amount of fresh dates are processed to make date syrup or traditional sweets, whereas in international market, there is a huge demand of date products such as date paste, date syrup, date powder, date juice, date honey, date vinegar, date jams, beverage extract, sauces, pickles, desserts, confectionary items, bakery items and liquid/powder date sugar etc. Lack of processing facilities, poor quality of dates produced (low pulp), unhygienic harvesting and processing, non-compliance of sanitary & phytosanitary (SPS) requirements and resistance to induct modern technology both in production as well as for value addition is keeping our date export potential to minimum.

A two-pronged strategy is proposed for intervention in date production, processing and export sector. The revenues earned by the sector are not commensurate with the actual potential and can be increased with a few interventions.

Behind Borders:

a) Product diversification by improving varietal mix through the import of tissue culture varieties to introduce globally preferred varieties such as Ajwa, Madjool, DegletNour and also other varieties which give better quality and yield.
b) Establishment of Date Research & Export Compliance Training Institutions at main date growing regions of Pakistan, where date stakeholders should be trained according to international standards and practices for enhancing production as well as product sophistication and exports.

c) Installation of Artificial Dates Maturation plants/ Date Dryer Plants at main date growing regions of Pakistan, as the monsoon rain poses a great threat to the crop and effect the date production through this we can cover the losses to some extent.
d) Development of roads and transportation infrastructure including cold storage facilities in main date growing regions of Balochistan, as the huge quantity of produce at the province are wasted and perished every year.
e) Dates in remote areas of Balochistan and Sindh are cultivated, grown and ripe by traditional methods which are very close to organic farming, hence with a little effort, such produce could be certified as organic, which could fetch better value in international market.
f) Value addition in dates needs immediate attention. Infrastructure support in the form of common processing facilities or PPP model based facilities for preserving, sorting, grading, pitting, polishing, fumigating, value addition and packaging etc. may be established without further delay. If the downstream stakeholders are provided with appropriate processing facilities, overall efficiency of the entire sector will improve, consequently improving the product quality and increased shelf life, which will eventually yield higher revenue generation.
g) Subsidy/tax free on import of export associated machineries for dates especially value added machineries
h) Brand development and registration of geographical indications of dates by name, as our country produced high quality of soft dates and the branding should be done on the basis of generic names such as Aseel, Dhakki and Begum Jangi which would later help in promotion of dates at national and international level.
i) Organize date shows in major cities of Pakistan, where participation of foreign buyers from potential importing countries should be ensured through our missions abroad.

Beyond Borders:

j) Market diversification is first and foremost intervention required in date sector. A quick and easiest way to identify and focus on target markets (especially dry dates) is to locate majority Hindu diaspora across the globe. According to a conservative estimate more than 2 billion followers of Hindu religion are spread across the globe with majority settled in South Asia (India, Bangladesh and Nepal), Africa and Indian Ocean Island States etc. Similarly more than 32 million Indian expats are residing in USA, UK, Malaysia, Canada, Europe and Middle East, majority of them are of Hindu religion. We need to explore markets where dry dates can be exported for religious rituals.
k) Participation in major food related exhibitions through delegation/exhibitors such as Gulf Food-Dubai, Fruit logistica-Germany, Fine Food-Australia, Sial Food-Canada, Sial Paris etc. is essential for introduction of Pakistani dates and date products to international clients.
l) Through the dates promotion campaigns, small packages of dates with brochures of local potential companies may be sent as samples to our selective missions for onward distribution to the potential buyers and others who matters in the decision making for buying the products along with the dates testing events in major super markets of their host countries.
m) Trade and Investment Officers posted in Dates potential countries may be directed to explore potential for wholesale and retail buyers and submit detailed reports on monthly basis.

n) Dates may be included in all the existing and upcoming FTAs/PTAs, unilateral concessions may also be requested from all partner countries for export of dates and dates products from Pakistan.
o) Possibilities may be explored to get funding from international donors (such as ITC/WB/FAO) for development of dates sector in Pakistan.

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