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Exploring Potential of Date Exports from Pakistan



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Exploring Potential of Date Exports from Pakistan

Executive Summary

Nature has blessed Pakistan with such a climate which suits for date palm cultivation and our country has enormously large number of date palm varieties and many of them have potential to be exported as fresh and dried form. Pakistan is among the top date producers and exporters of the world. Also, the date sector offers substantial opportunities for exports, income and employment generation in addition to economic growth and livelihoods for millions of rural smallholders of our country. 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 of dates 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.

To respond to the challenges posed today by the suspension of trade activities between Pakistan and India who was the massive consumer of our dry dates which covers 75-80% share of our total date exports, the market as well the product diversification of Pakistani dates are the dire need of time and this analysis report covers remedial strategies and consolidated information to save and ensure the growth of this potent source of foreign exchange. Furthermore, it provides the information about factors and problems affecting the export development of dates sector in Pakistan.

Concluding the facts, there is a dire need to bring a systemic change in our current strategies in Date sector. Adaptation of modern farming practices along with proper fruit handling techniques, cultivation of export-oriented varieties, strengthen preserving and processing facilities, encouraging value addition trends, improving SPS (sanitary & Phyto-sanitary) regime, catering international market demands and strengthening supply chain management will be some of the key areas which can anchor our date sector in long run.

Dates Overview

Introduction

The exact origin of the date palm is unknown. However, there is general agreement that the date palm's history is as old as that of humans themselves and is believed to be the world's oldest cultivated fruit, with fossil evidence dating to at least 50 million years ago. The scientific name of the date palm or date palm (*Phoenix dactylifera* L., Palmaceae) comes from the Greek phoenix daktulos, meaning purple or red finger. Throughout history, the date palm fruit has been recognized as an energizing staple, and sometimes in appreciation of its fruit, the date palm has been called the sacred tree, the tree of life, the bread of the desert, and the cake of the poor.

Date palms are one of the most abundant fruits in the world. Hundreds of cultivars with different textures, colors and flavors are available on the global market. Primarily a mature Tamr stage for upgrades and adoption in food processing plants. Such usage should be based on the fruit's valuable properties. Mainly rich in fiber and phenolic antioxidants.

39 countries throughout the world grow dates (FAO 2018). There are currently more than 120 million date trees being planted worldwide, 90% of which are in the Middle East and North Africa (MENA) and 10% in other nations. In terms of regional distribution of dates today, Asia currently holds the top spot with more than 60 million date palms (Saudi Arabia, Iran, Iraq, Pakistan, Oman, UAE, Kuwait, Qatar, Yemen, Bahrain, Israel, mainland China, etc.), followed by Africa with more than 32.5 million date palms (Egypt, Algeria, Sudan, Tunisia, Libya, Morocco, Mauritania, Mali, Niger, etc.). More than 60,000 palms are found in Mexico and the United States, with Europe coming in second.¹

¹ Source: (Khairpur)

Crops and Cultivation

Date palms reach heights of 15-25 m, begin bearing fruit in 4-5 years, reach full bearing capacity in 10-15 years, and produce 90-180 lbs (40-80 kg) or more of dates each harvest season. can be harvested. The shape, size, color, quality and consistency of date pulp vary depending on the variety grown and the growing conditions. The date palm is known to live up to his 150th year, but fruit production declines and is replaced at an earlier age in commercial cultivation. There are three techniques to propagate date palms as under

1. 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.

2. Through Offshoot propagation (traditional methods):

Off shoot Date palms reach heights of 15-25 m, begin bearing fruit in 4-5 years, reach full bearing capacity in 10-15 years, and produce 90-180 lbs (40-80 kg) or more of dates each harvest season. can be harvested. The shape, size, color, quality and consistency of date pulp vary depending on the variety grown and the growing conditions. The date palm is known to live up to his 150th year, but fruit production declines and is replaced at an earlier age in commercial cultivation. There are three techniques to propagate date palms as under 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.

3. 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.²

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

² (Alpini, n.d.)

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. It has a capacity of braving salinity and water logging threats very well.³

It is important to discuss here that the 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 hand or through laborers.

Benefits of Date Palm Tree and Nutritional Value of Fruit

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. Dates conserve rather easily, to the benefit of small farmers' ability to gain maximum returns from their crops.⁴

Encouraging processing dates into a variety of products can generate new demand and new market opportunities for producers and actors along the chain. Fresh and dried fruits are eaten as a key component in traditional diets as snacks and are processed into confectionary products. From the human nutrition point of view, dates as raisins and figs are a rich source of carbohydrates. A single serving of date contains 31 grams of carbohydrates, making it a powerhouse of energy. Dates provide a wide range of essential nutrients, and are a very good source of dietary potassium. The sugar content of ripe dates is about 70 percent; the remainder consists of protein, fiber, and trace elements including boron, cobalt, copper, fluorine, magnesium, phosphorous, sodium and zinc. Dates are also good sources of iron, potassium, magnesium (important for use of voluntary muscles), sulphur, copper, calcium and phosphorus

³ (Zaid, 2002)m

⁴ (L.)

(important in building muscles and neuro-tissues). Dates contain 13.8 percent water and about 3 percent proteins as well as at least 6 vitamins including a small amount of vitamin C, and vitamins B1, thiamine, B2, riboflavin, nicotinic acid (niacin) and vitamin A. Additionally, the protein in dates contains 20 types of amino acids, some of which are not present in popular fruits such as oranges, apples and bananas. Dates contain 0.5-3.9 percent pectin, which may have important health benefits. 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 is used as a coating for leather bags and pipes to prevent leaking.⁵

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 are cherished all around the world.

Nutritional Value of Dates

Dates contain the following food values, calculated per 100 grams	
Moisture Contents	15 -30 %
Protein	2.5 %
Fat	0.4%
Minerals	2.1%
Carbohydrates	70.0%
Fiber	3.9 %
Vitamins A, B Complex & K are also found in dates	
One Kg (1000 grams) dates contain, on an average, 3000 calories. Whereas average human body requirement is between 2500 to 3000 calories a day	

Table 1 Nutritional Value of Dates

⁵ (Sadler)

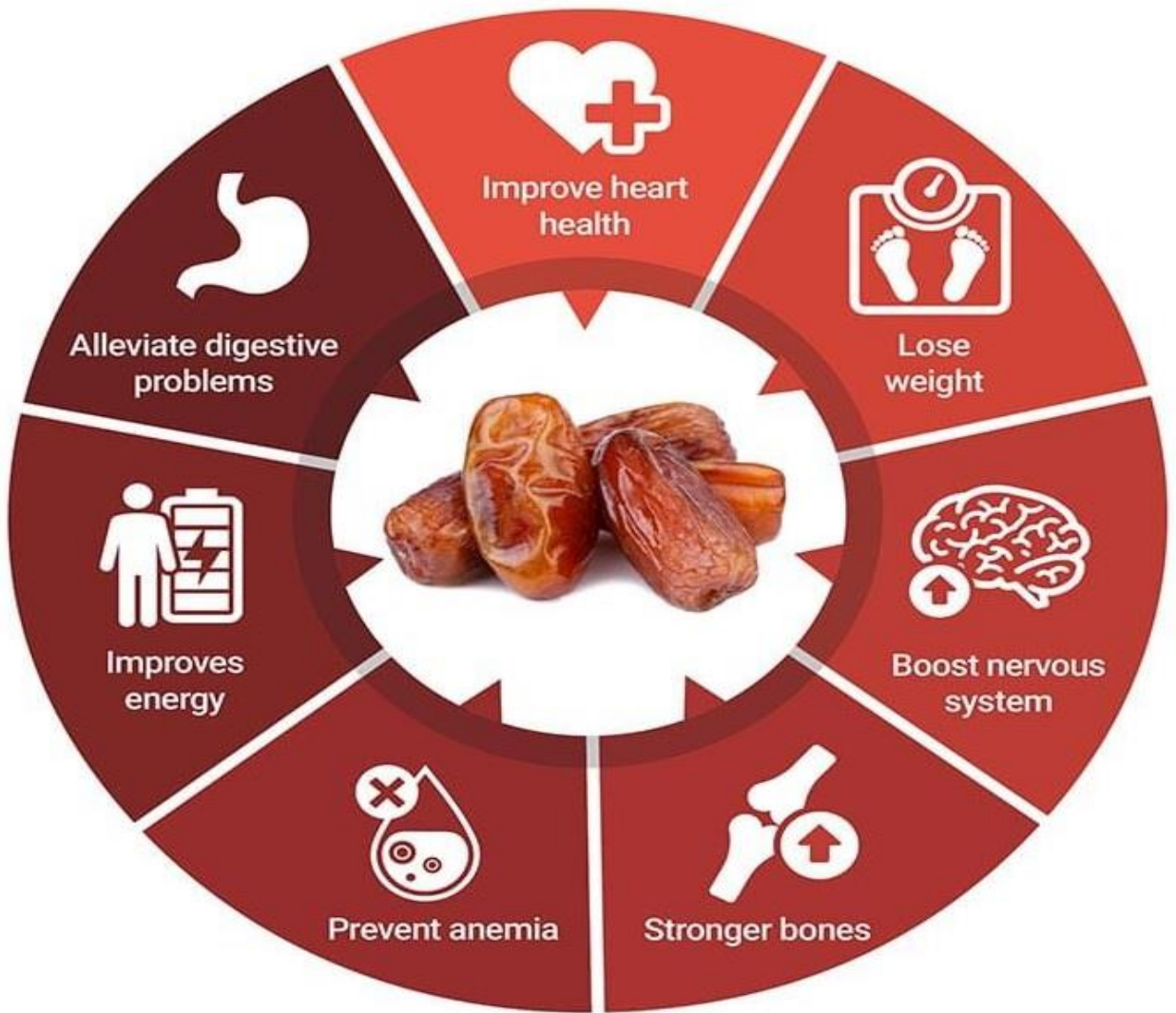


Figure 1 Nutritional Value of Dates

Global Overview of Dates

Global Production

Globally date palm production covers an area of 1,235,601 hectares with a total production of 9.45 million MT in 2020. Its cultivation area expands to Asia (771,509 ha with share of 62.44% in world production 2020), Africa (453,775 ha with share of 36.8% in world production 2020), the Americas (9,830 ha with share of 0.8% in world production 2020) and Europe (487 ha with share of 0.04% in world production 2020). The lead date producing regions are Asia and Africa accounting for respectively, 62.44 percent and 36.8 percent of the total world harvest.

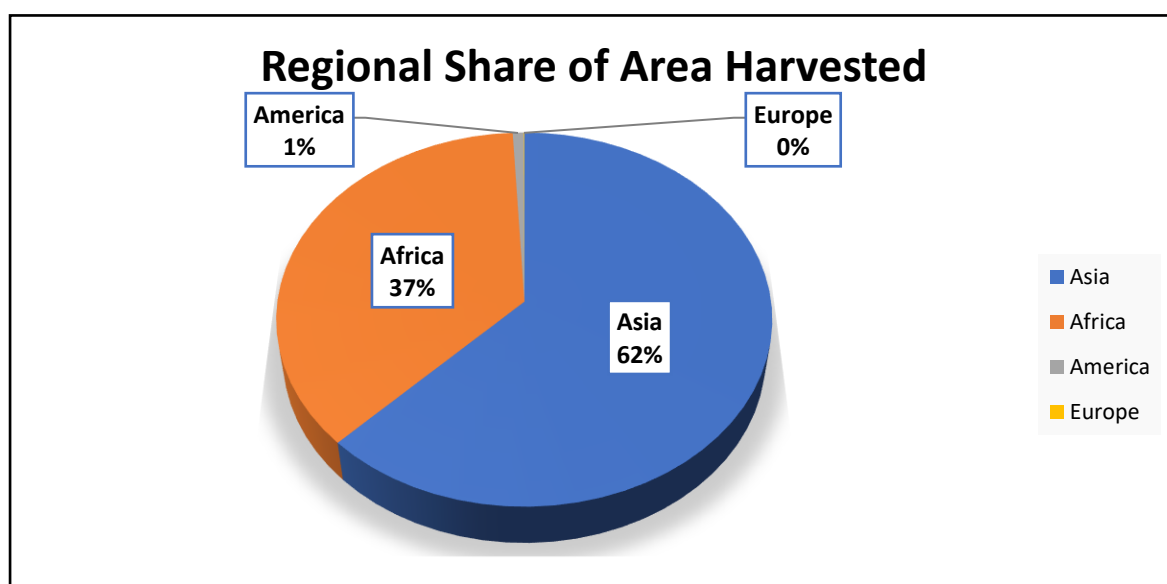


Figure 2 Regional Share of Area Harvested 2021

Source: ITC TRADEMAP

In terms of production quantity, Egypt ranked the highest in production of dates with 1,690,959 tons followed by Saudi Arabia, Iran, Algeria, Iraq and Pakistan. On the other end of the scale was Colombia with 25.0 tons, Djibouti with 126 tons and Eswatini with 310 tons. Total world production of dates reached 9,454,213 tons in 2020 according to Food and Agriculture Organization Statistics (FAOSTAT). This is 2.63% more than the production in 2019 and 30.1% more than the production that was in 2011. Historically, total production of dates reached an all-time high of 9,454,213 tons in 2020 and an all-time low of 1,809,091 tons in 1962. The average annual growth amounted to 2.71% since 1961. The top ranked country, Egypt, accounted for 17.88 % of production of dates in the world. The top 3 countries i.e. Egypt, Saudi Arabia and Iran hold a 48 % share while the top ten producing countries accounts for 89% of production in year 2020. However, Pakistan contributes share of 6% in total world production in 2020. The top 20 producing countries are listed in table-2.

TOP 20 DATE PRODUCERS			
S#	Country	Production Value ('000 Tons)	% Share
World		9454.213	100%
1	Egypt	1690.959	18%
2	Saudi Arabia	1541.769	16%
3	Iran	1283.499	14%
4	Algeria	1151.909	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	United Arab Emirates	328.669	3%
11	Libya	177.629	2%
12	China, mainland	158.671	2%
13	Morocco	143.16	2%
14	Kuwait	111.748	1%
15	Yemen	69.59	1%
16	Türkiye	60.661	1%
17	United States of America	56.79	1%
18	Israel	48.984	1%
19	Qatar	26.607	0%
20	Jordan	23.09	0%

Table 2 TOP 20 DATE PRODUCERS 2021

Source: Food and Agriculture Organization (FAO)

Global Date 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).⁶

⁶ (Emmens)

Following Table-3 shows some most popular date varieties of the world along with countries of origin.

Popular Date Varieties of the World		
S#	Name of Variety	Mostly Grown in
1	Medjool Dates	Morocco, Palestine, Israel, Saudi Arabia, Jordan, Iran, Namibia and USA
2	Deglet Noor Dates	Tunisia, Algeria, Israel and USA
3	Ajwa Dates	Saudi Arabia
4	Ambar Dates	Saudi Arabia
5	Piarom Dates	Iran and some other Middle East Countries
6	Safwai/Kalmi Dates	Saudi Arabia
7	Sukkari Dates	Saudi Arabia
8	Zahidi Dates	Iran and Iraq
9	Khalas Dates	Saudi Arabia and UAE
10	Barhi Dates	Iran, Iraq, Saudi Arabia, UAE, Namibia, Israel and USA
11	Mabroom Dates	Saudi Arabia
12	Mazafati /Muzawati Dates	Iran and Pakistan
13	Rabbi Dates	Iran and Pakistan
14	Anbara Dates (Most Expensive)	Saudi Arabia
15	Khudri Dates	Iraq and Saudi Arabia
16	Halawy Dates	Iraq
17	Hayani Dates	Egypt and USA
18	Saghai Dates	Saudi Arabia and other countries of Arabian peninsula
19	Sayer Dates (Widely Grown)	Iran and Iraq
20	Lulu Dates	UAE and Iran
21	Aseel Dates	Pakistan

Table 3 Popular Date Varieties of the World

Source: Desk Research-different websites

Global Yield Trends

Yield per hectare is a good measure of agricultural output. Egypt being the world leader in dates production has the highest yield of 33.26 tons per hectare, followed by Kuwait having 30.46 tons per hectare. Albania is the country having the third highest yield of 29.92 tons per hectare, followed by Turkey having yield of 17 tons per hectare, whereas Oman stood at fifth number having the yield of 14.38 tons per hectare. The above-mentioned yields have been depicted in the chart below.

TOP 5 COUNTRIES HAVING HIGHEST YIELD

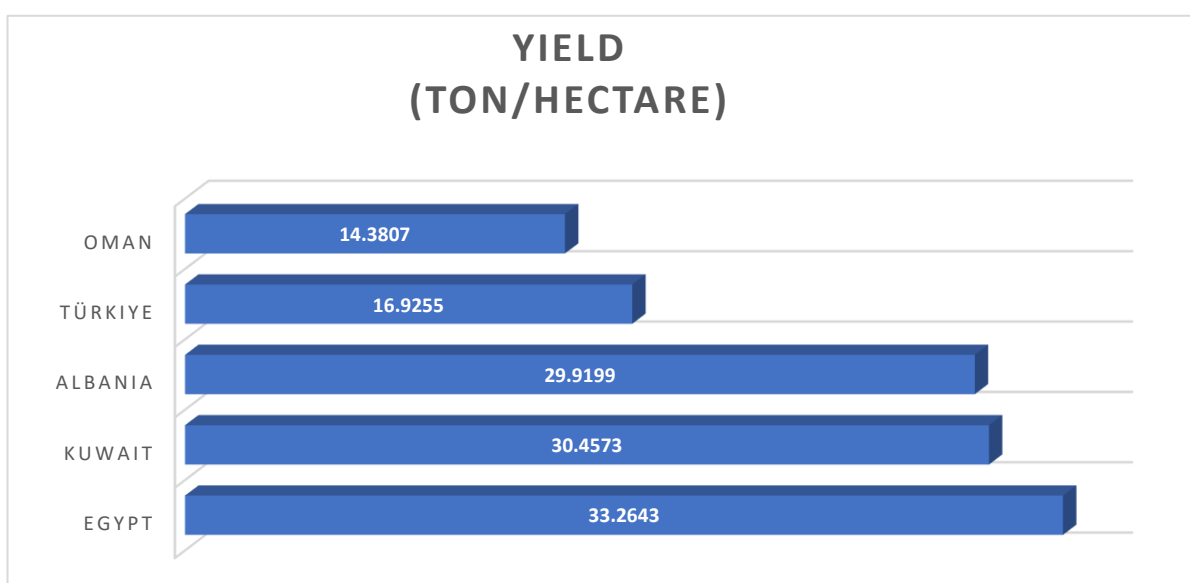


Figure 3 TOP 5 COUNTRIES HAVING HIGHEST YIELD

Source: Food and Agriculture Organization (FAO)

Hence looking at the countries having highest yield it can be observed that only one country that has the highest production in terms of quantity has the highest yield, whereas the countries which are the world's largest dates producers have significant lower yields. However, the yields of top date producing countries are also depicted in the figure below, it shows that Egypt is the world leader in terms of world dates production and yield both, the second largest date producer i.e. Saudi Arabia has a yield of only 10 tons per hectare. The third largest date producer Iran has a yield of 8.3 tons per hectare. Pakistan yield stands at 5.1 tons per hectare, which is quite low as compared to countries having highest yields

YIELD OF TOP 5 PRODUCERS

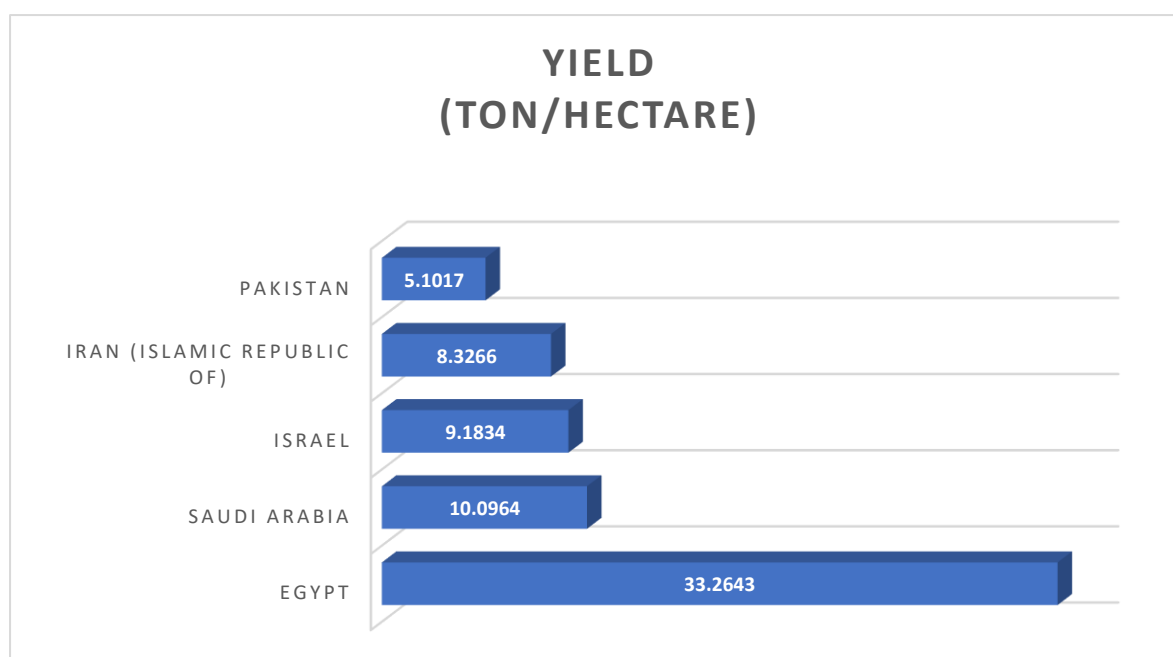


Figure 4 Yield of Top 5 Producers

Source: Food and Agriculture Organization (FAO)

Global Consumption

Global date consumption has increased significantly during the last decade. The consumption of dates in 2011 was around 5.1 million metric tons, however in the year 2019 the global consumption of dates stood at 8.5 million metric tons, which is around 64.7% increase. However this consumption includes both industrial and table consumption.

Global Consumption 2011 to 2019	
Year	Tons
2011	5,163,381.56
2012	5,228,039.48
2013	5,292,933.16
2014	5,357,479.79
2015	5,421,416.21
2016	5,484,836.20
2017	8,321,805.55
2018	8,413,749.86
2019	8,502,621.39

Table 4 Global Consumption 2011 to 2019

Table Dates Consumption

Global date consumption has increased during the last decade. The consumption of dates in 2017 and 2018 surpassed 1 million metric tons which is the world highest consumption to date. However, in the year 2019 and 2020 the consumption remained low as Global food security was severely harmed by the expansion of trade restrictions and high tariff barriers in response to the COVID-19 epidemic. The global consumption of table dates is show in the figure

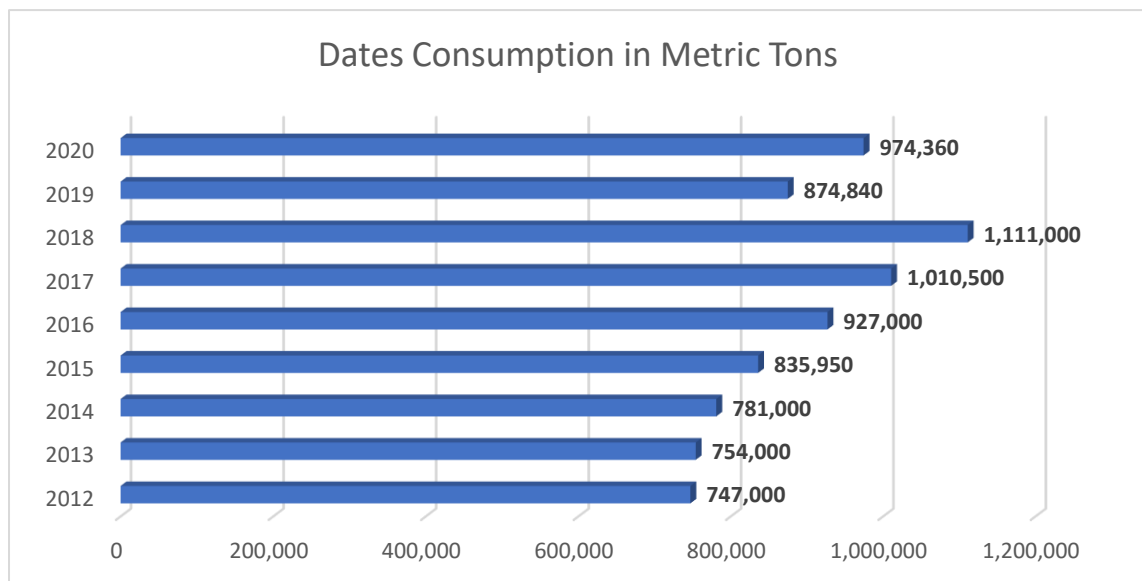


Figure 5 Table Dates Consumption

Source: STATISTA

The world's greatest producer and supplier of dates is the Middle East and North African (MENA) region. Numerous Middle Eastern nations have imposed new limitations on travel, which are anticipated to pressure supply chains as the number of cases rises amid the global coronavirus revival and its most recent variants. For instance, the Kingdom of Saudi Arabia extended the limitations put in place earlier this month to combat the pandemic by 20 days in February 2021. The COVID-19 pandemic had a significant impact on the date market in the 2020 and 2021. However, the market is anticipated to develop over the study period as a result of growing date consumption globally, rising health benefits awareness, and higher demand from the processing industries. Numerous health advantages come from eating fresh dates. They are a good source of vitamins and minerals like magnesium, zinc, sodium, potassium, calcium, iron, and phosphorus. It has also been shown to add fiber to the diet and help prevent abdominal cancer. Therefore, growing awareness of the health benefits of

consuming dates has led to an increase in imports of dates worldwide. However, several factors such as stringent regulations, pest and disease risks, and political uncertainties in the Middle East region are expected to limit the market growth during in the coming years. The Middle East and Africa are considered to be the world's largest markets for dates. Based on date palm consumption, Tunisia, Iran, Israel, Saudi Arabia, United Arab Emirates, Iraq and Egypt dominate his MENA region. Egypt consumed her 1.68 million tonnes of dates in 2020, ranking him number one. Saudi Arabia, Algeria, the United Arab Emirates and Oman had the highest per capita consumption of dates. Due to increased demand for dates, its consumption is expected to increase significantly.

The date market is anticipated to witness a CAGR of 5.1% from 2022 to 2027.⁷

Global Production, Consumption & Stock

While looking at the global production and consumption of the dates it is observed that only 10 percent of the dates on average are consumed as table dates, while the remaining 90% of the dates are either used as Industrial dates or for storage.

Global Production, Consumption & stock					
Year	Global Production	Global Consumption	Table Consumption	Industrial Consumption	Stock
2011	7,265,035	5,163,382			2,101,653
2012	7,432,484	5,228,039	747,000	4,481,039	2,204,445
2013	7,522,861	5,292,933	754,000	4,538,933	2,229,928
2014	7,428,939	5,357,480	781,000	4,576,480	2,071,459
2015	8,094,353	5,421,416	835,950	4,585,466	2,672,937
2016	8,316,007	5,484,836	927,000	4,557,836	2,831,171
2017	8,393,885	8,321,806	1,010,500	7,311,306	72,079
2018	8,865,998	8,413,750	1,111,000	7,302,750	452,248
2019	9,212,293	8,502,621	874,840	7,627,781	709,672
2019	9,454,213	-	974,360		

Table 5 Global Production, Consumption & stock

Source: FAO & Statista

⁷ (DATE MARKET - GROWTH, n.d.)

Trade of Dates

Imports & Top Importing Markets

India is the largest importer of dates in the world. In 2021, it imported 240,350 USD date fruits. Morocco and France are also key markets, with imports worth 202,128 USD and 113,756, respectively.

In 2020, the top importers of Dates, fresh or dried were India (\$218M), Morocco (\$151M), France (\$120M), United Arab Emirates (\$110M), and Germany (\$101M).⁸

World Top Importers (2021)			
Importers	Value imported (USD thousand)	Quantity imported	Share in world imports (%)
World	1,944,824	-	100
India	240,350	475,356	12
Morocco	202,128	113,161	10
United Arab Emirates	142,867	158,641	7
France	113,756	46,263	6
Germany	85,601	29,081	4
United States of America	84,234	26,756	4
United Kingdom	80,476	26,432	4
Indonesia	69,002	50,134	4
Netherlands	65,469	17,593	3
Malaysia	64,697	26,191	3
Türkiye	63,794	56,109	3
Canada	62,212	16,660	3
Italy	47,468	18,086	2
Spain	42,444	13,412	2
Yemen	33,370	52,930	2
Kazakhstan	28,603	0	2
Afghanistan	25,627	32,327	1
Belgium	22,793	8,718	1

Table 6 World Top Importers (2021)

Source: ITC Trade Map

⁸ (Shahbandeh, n.d.)

Global imports of dates in 2020 reached to 1473637 million tons, which has an increase of about 30% compared to 2015. Overall, global date imports show significant growth from 2016 to 2020. However, the trend pattern shows significant fluctuations during the study period. Total imports have increased at an average annual rate of 10% over the past four years.

In 2017, India still held the lead. India imported about \$ 242 million dates that year, not much different from 2020. In 2019, however, the UAE was the world's largest importer with \$ 407 million in imports.

Overall, global date imports grew by seventy-seven percent from 2012 to 2016, and by about thirteen percent between 2016 and 2020. In other words, it has risen from \$ 1.64 billion to \$ 1.86 billion.

In 2017, India's share in the world's total date imports was 15.6%. The UAE was second with 9.8 percent of the world's total date imports. Morocco was in third place with a share of about 7.5 percent and France was in fourth place with a share of 5.7 percent.

In 2020, India accounted for 12.1 percent, Morocco 8.5 percent, France 6.2 percent, the United Arab Emirates 5.8 percent and Germany 6.4 percent of total world trade in date imports. Meanwhile, new countries have emerged in the field of date imports, which shows the growing market and the strong potential of these countries as new date markets.⁹

But in terms of volume, India is the largest importer of dates in 2020 with more than 362,209 tons. The UAE is in second place with about 159,000 tons and Morocco is in third place with imports of 76,000 tons.¹⁰

In the date import market, India has been at the top of the table of importers for consecutive years, and in general, we do not see a significant change in the first to third place of this product. The traditional importers of dates in all recent years have been India, UAE and Morocco. Meanwhile, the need to introduce more and more products with attractive packaging and high quality in Europe and the United States is necessary.

⁹ (World Trade Statistical Review, 2021)f

¹⁰ (<https://solomontrade.co/the-greatest-dates-importers-in-the-world/>, n.d.)/

Exports & Top Exporting Markets

According to statistics, Saudi Arabia is the largest exporter of dates in the world in 2021. In 2020, this country exported about 323,000 USD, which is 13.4 percent of the whole world exports. Israel (317,000 USD) and Tunisia (256,000 USD) are the other major exporters of dates in 2020.

Exporters	Value exported in 2021 (USD thousand)	Quantity exported in 2021	Share in world exports (%)
World	2,417,062.00	-	100.00
Saudi Arabia	322,840.00	224,262.00	13.40
Israel	317,066.00	-	13.10
Iran, Islamic Republic of	305,230.00	348,324.00	12.60
United Arab Emirates	272,015.00	261,421.00	11.30
Tunisia	255,900.00	118,666.00	10.60
Algeria	141,845.00	160,395.00	5.90
Iraq	124,465.00	313,080.00	5.10
United States of America	116,792.00	21,269.00	4.80
Netherlands	68,799.00	12,537.00	2.80
Pakistan	52,111.00	121,244.00	2.20
Palestine, State of	50,676.00	9,143.00	2.10
Egypt	49,756.00	11,385.00	2.10
Jordan	45,795.00	13,185.00	1.90
France	38,866.00	12,702.00	1.60
Türkiye	37,574.00	18,660.00	1.60
Mexico	35,621.00	8,625.00	1.50
South Africa	32,341.00	10,695.00	1.30
Germany	31,270.00	7,868.00	1.30

Table 7 Top Exporting Markets 2021

Source: ITC Trade Map

In 2020, Tunisia had the share of 14.3%, Iran 13.6%, Israel 11.5%, Saudi Arabia 11.3% and the UAE 10.5% of total world date trade. In the meantime, we should note the emergence of new competitors such as Israel in major date exporters. But in terms of volume, Iran is the largest exporter of dates in 2020 with more than 338,406 tons. The UAE is in second place with about 240,000 tons and Saudi Arabia is in third place with exports of 213,000 tons. In 2019, Iraq topped the volume of date exports with more than 227,961 tons. This figure for this country in 2018 was 265344 tons. Therefore, we are witnessing a significant decline (approximately 14%) in the volume of date exports in this country. In 2019, the UAE was ranked second, just like in 2020. There are also some countries which are the exporters of dates but in fact they re-export dates by importing dates (for example, UAE and Pakistan)¹¹

¹¹ (<https://solomontrade.co/the-greatest-dates-importers-in-the-world/>, n.d.)

Local Overview of Dates

The presence of date seeds in Pakistan during the excavation of Mohenjo Daro-an archaeological site at Larkana, Sindh province (Marshall 1931). 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; Jatoti 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).

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 2018, Pakistan ranked at 6th position in world with respect to dates production 471.6 thousand tons and 5th position in world with respect to area under dates fruit 100.61 thousand hectares (FAO 2018). It is worth mentioning that Pakistan also is the 8th largest exporter in the world in 2019. Date crop is found in all four provinces of Pakistan on 99 thousand hectares with a production of around 420.1 thousand tons in 2018-19 (MNFSR 2018-19). There are four major clusters of dates production in the country, namely at Sukkur and Khairpur in Sindh (38.9 thousand hectares with share of 44.3% in Pakistan's dates production 2018-19); Kech (the administrative center is Turbat) and Panjgur in Baluchistan (53.4 thousand hectares with share of 43.2% in Pakistan's dates production 2018-19); Muzaffargarh, Jhang, Multan, Bahawalpur and D.G Khan in Punjab (4.8 thousand hectares with share of 8.9% in Pakistan's dates production 2018-19); and Dera Ismail Khan in Khyber Pakhtunkhwa (1.8 thousand hectares with share of 3.4% in Pakistan's dates production 2018-19). It is clear that Sindh and Baluchistan provinces account for about 87.5 % of the total Pakistan date production and the harvested area. However, dispersed date palm cultivation of less than 13 % 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.

Dates Production

Date crop is found in all four provinces of Pakistan on 96 thousand hectares with a production of around 560.2 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 hectares with share of 39.26% in Pakistan's dates production 2020-21); Kech (the administrative center is Turbat) and Panjgur in Baluchistan (53.6 thousand hectares with share of 57.3% in Pakistan's dates production 2020-21); Muzaffargarh, Jhang, Multan, Bahawalpur and D.G Khan in Punjab (475 hectares with share of 0.75% in Pakistan's dates production 2020-21); and Dera Ismail Khan in Khyber Pakhtunkhwa (1.3 thousand hectares with share of 2.7% in Pakistan's dates production 2020-21). It is clear that Sindh and Baluchistan provinces account for about 87.5% of the total Pakistan date production and the harvested area. However, dispersed date palm cultivation of less than 13% of the total harvested area is carried out in a few places in the provinces of Punjab and Khyber Pakhtunkhwa (KPK), which are located in northern Pakistan where the temperatures are low; annual average temperature is 25C. Please see in Table-8 for date production in Pakistan production data and area under date fruit in 2020-21. ¹²

Pakistan Dates Production (2020-21)

YEAR	Area "000" Hectares	Production "000" Tons
2016-17	97.7	438.9
2017-18	98.4	540.6
2018-19	99.0	420.1
2019-20	99.0	564.22
2020-21	95.6	560.18

Table 8 Pakistan Dates Production (2020-21)

Source: MNFSR Statistics 2020-21

¹² (Investment)f

Dates Production in Provinces

Punjab

Punjab province does not contribute majorly to the production of dates in Pakistan. It is also evident from the table 9 below that production area has decreased significantly in Punjab over the last five years and similarly the production has also decreased

Punjab		
Year	Area “000” Hectares	Production “000” Tons
2016-17	5.7	43.5
2017-18	4.9	37.7
2018-19	4.8	37.6
2019-20	4.6	37.3
2020-21	0.475	4.2

Table 9 Dates Production (Punjab)

Source: MNFSR Statistics 2020-21

Sindh

By looking at figures in the Table – 10 it is observed that Sindh is one of the major date producing province of Pakistan. Its area of production has also increased over the last five years from 2016 to 2021, similarly the production has also increase multiple folds.

Sindh		
Year	Area “000” Hectares	Production “000” Tons
2016-17	37.0	202.3
2017-18	38.4	309.7
2018-19	38.9	186.3
2019-20	39.6	51.7
2020-21	40.3	219.9

Table 10 Dates Production (Sindh)

Source: MNFSR Statistics 2020-21

Baluchistan

The statistics in table 11 below shows that Baluchistan is the largest dates producing province in Pakistan. Its area of production has not increased much over the last five years, however the production has doubled, which shows that the province has increased its yield significantly over the last five years.

Baluchistan		
Year	Area “000” Hectares	Production “000” Tons
2016-17	53.2	180.7
2017-18	53.3	180.7
2018-19	53.4	181.5
2019-20	53.5	293.8
2020-21	53.6	321.1

Table 11 Dates Production (Baluchistan)

Source: MNFSR Statistics 2020-21

KPK

The figures below in table 12 shows that KPK also doesn't contribute much to the dates production in Pakistan. Over the five years period its area of production has decreased but however its production has increased slightly, which depicts that either they have planted some high yield growth plant or have started using modern farming techniques.

KPK		
Year	Area “000” Hectares	Production “000” Tons
2016-17	1.6	12.4
2017-18	1.6	12.4
2018-19	1.8	14.5
2019-20	1.7	16.9
2020-21	1.3	14.9

Table 12 Dates Production (KPK)

Source: MNFSR Statistics 2020-21

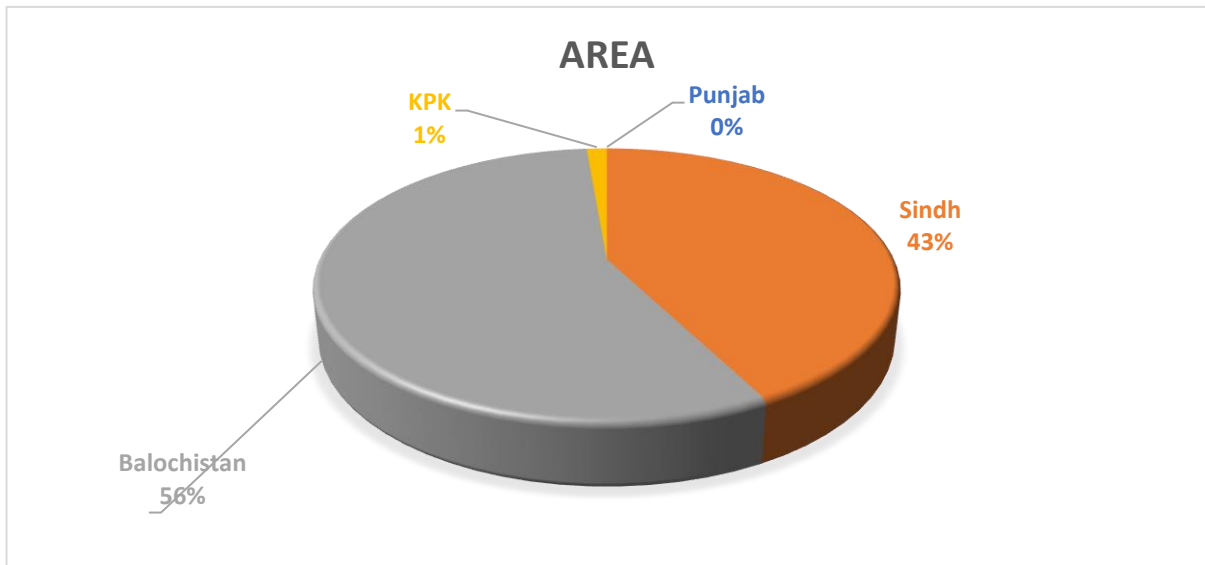


Figure 7 Area of Production (Share)

As area of production of different provinces has been discussed above, it is further depicted in figure 5 above that Punjab constitutes 0% share in area of production, followed by KPK with 1% share. Sindh province constitutes 43% share in Pakistan's total area of production, making it the second largest contributor after the Baluchistan province which holds the 56% share in whole country.



Figure 6 Share of Production (Quantity)

Figure 6 shows the share of dates production in terms of quantity produced. The number of all four provinces fall in line with their position in area of production, however there is a slight difference in the shares in terms of quantity. Baluchistan is the largest producer with 57% share followed by Sindh with 39% share, whereas KPK has only 3% share in total production and Punjab has a negligible share of 1%.

Local Date Varieties

Nature has blessed this area with such a climate which suits for Date Palm cropping. Pakistan has enormously large number of Date Palm varieties and many varieties have potential to be exported as fresh and dried form. There are more than 300 varieties of dates palm grown in Pakistan, among them the most popular varieties are shown in following table-13.

Province-wise Dates Cultivars/Varieties of Pakistan	
Sindh Cultivars/Varieties	Aseel, Kuprro, Kharbalian, Fasli, Dedhi, Gajar, Patasho, Mithrri, Otakin, Halwaen, Boobak, Badamen, Dodi, Thorri, 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.

Table 13 Province-wise Dates Cultivars/Varieties of Pakistan

Source: Desk Research-different websites

Local Consumption

Domestically, the majority of dates fruit is consumed in fresh and dried forms, it is also consumed in many different ways such as; fresh table dates, dried dates, frozen dong (Rutab) dates and stuffed dates with roasted nuts. Locally, the date fruit is also utilized in desserts, dates syrup, date paste, date dry powder, date pickles, dates blocks and dates energy bar manufacturing.

Pakistan Dates Consumption 2020-21					
Year	Production (kg)	Exports		Consumed or Perish	
		(kg)	(%)	(kg)	(%)
2016-17	438,000,900	188,205,667	43%	249,795,233	57%
2017-18	540,000,700	158,349,773	29%	381,650,927	70%
2018-19	420,000,100	113,956,737	27%	306,043,363	73%
2019-20	564,220,000	93,454,682	17%	466,729,318	83%
2020-21	560,184,000	127,812,623	23%	436,407,377	77%

Table 14 Pakistan Dates Consumption 2020-21

Source: TDAP, Statistics & PBS

Table 14 shows that Pakistan's date export have decreased over the span of 4 years. In 2019 export was recorded lowest of last four years however it might be due to the outbreak of covid and restriction arising due to global pandemic. Pakistan's exports have increased reasonably in 2020-21, showing a positive sign for the trade of dates.

Pakistan Date Consumption per Capita-2019	
Year	Consumption-Per Capita (kg)
2011	2.50
2012	2.37
2013	2.28
2014	2.09
2015	1.66
2016	-
2017	1.63
2018	1.4
2019	1.83

Table 15 Pakistan Date Consumption per Capita-2019

Source: FAOSTAT

PAKISTAN'S TRADE

Pakistan's Export

The value of exports of dates, fresh or dried, totaled \$ 52.11 million in 2021. Sales of dates went down by 13.56% compared to 2020

Importers	Value exported in 2021 (USD thousand)	Quantity exported in 2021	Share in Pakistan's exports (%)	Unit value (USD/unit)	Average tariff (estimated) faced by Pakistan (%)
World	52111	121244	100	430	
United Arab Emirates	30937	93339	59.4	331	0
United Kingdom	3061	3683	5.9	831	0
Germany	2995	3202	5.7	935	0
Türkiye	2799	5455	5.4	513	15
USA	1834	1874	3.5	979	8.4
Australia	1620	1604	3.1	1010	0
Bangladesh	1592	2940	3.1	541	2.5
Sri Lanka	1572	1798	3	874	0
Canada	1214	1051	2.3	1155	0
South Africa	609	606	1.2	1005	0
Nepal	550	842	1.1	653	6
Denmark	524	713	1	735	0
Netherlands	444	530	0.9	838	0

Table 16 Pakistan's Date Exports 2021

Top export destinations of Dates, fresh or dried from Pakistan in 2021 remains United Arab Emirates with a share of 59.4% (31 million US\$), United Kingdom with a share of 5.9% (3.1 million US\$), Germany with a share of 5.7% (2.9 million US\$), Turkey with a share of 5.4% (2.8 million US\$), USA with a share of 3.5% (1.83 million US\$), Australia with a share of 3.1% (1.6 million US\$), Bangladesh with a share of 3.1% (1.59 million US\$), Srilanka, Canada & South Africa.¹³

Competitor Analysis

While studying the global dates market it is observed that Quality of dates of Iran are quite similar to the quality of dates being produced in Pakistan, so Iran is one of the main competitors of Pakistan. Second falls the Algeria and Iraq.

Exporters	Value exported in 2021 (USD thousand)	Quantity exported in 2021	Unit value (USD/unit)
World	2,417,062	-	
Iran, Islamic Republic of	305,230	348,324	876
Algeria	141,845	160,395	884
Iraq	124,465	313,080	398
Pakistan	52,111	121,244	430
Malaysia	5,050	4,718	1,070
Kazakhstan	2,852	8,793	324
Russian Federation	1,116	1,271	878

Table 17 Competitors

Existing Market Competitor Analysis

The below tables show the existing markets of Pakistan and their shares in the respective markets.

UAE

UAE imported 136.4 million USD value of dates during the 2021, its major supplier was Saudi Arabia, that supplied around 65% of UAE imports, dates were imported at rate of 1,188 USD/ton by the Saudi Arabia. Iraq had the second largest share in imports of UAE dates, it amounted to 88.6 Million USD making it 14% of the total imports. Pakistan stood at the 4th with a share of only 4%. Zero percent tariff is being applied by the UAE on import of dates.

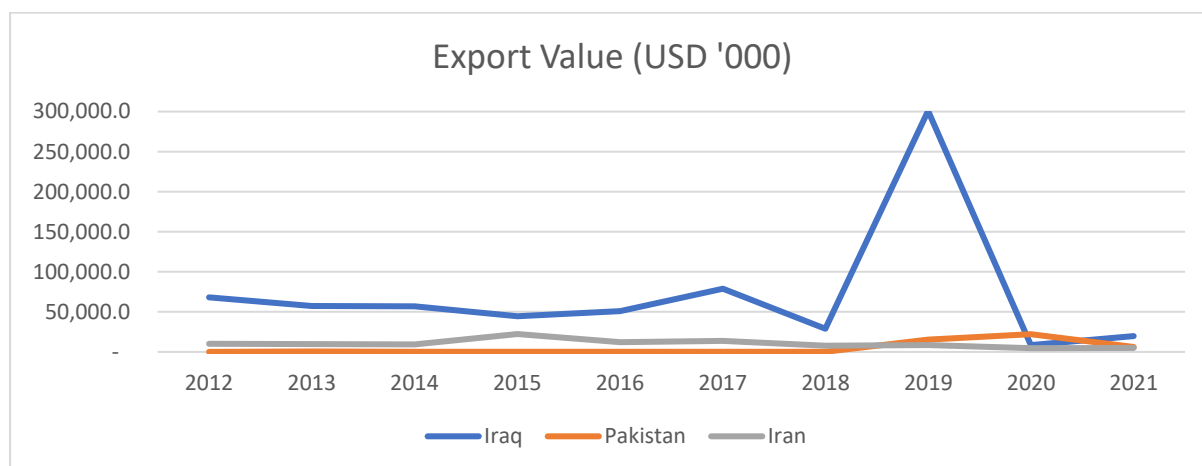
¹³ (TrendEconomy, n.d.)

Exporters	Value imported in 2021 (USD thousand)	Quantity imported in 2021	Share in United Arab Emirates's imports (%)	Unit value (USD/unit)	Average tariff (estimated) applied by UAE (%)
World	136,458	181,309	100	753	
Saudi Arabia	88,648	74,593	65	1,188	-
Iraq	19,690	63,536	14	310	-
Jordan	6,050	2,219	4	2,726	-
Pakistan	6,016	18,255	4	330	-
Palestine, State of	5,602	1,373	4	4,080	-
Iran	4,866	16,809	4	289	-

Table 18 UAE Market

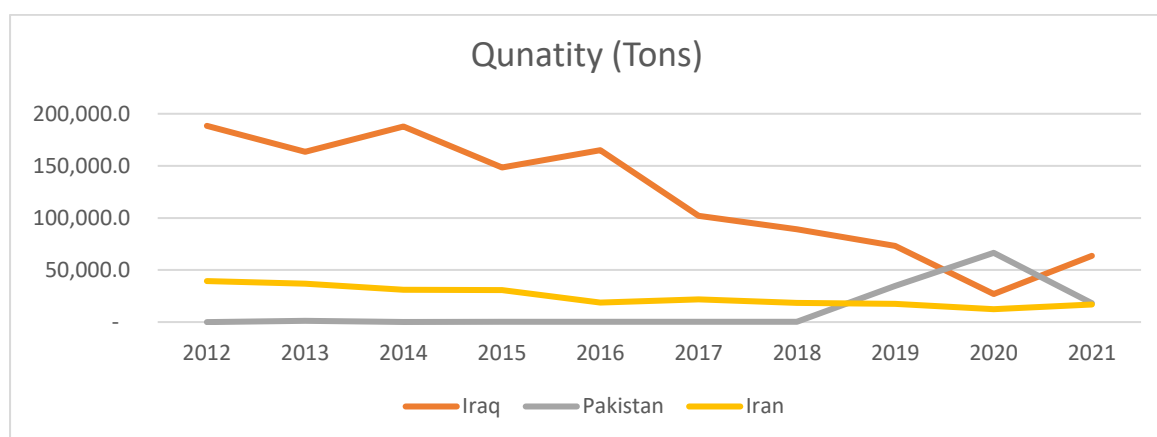
Comparison of Dates Export to UAE from Pakistan, Iraq and Iran

Export Value



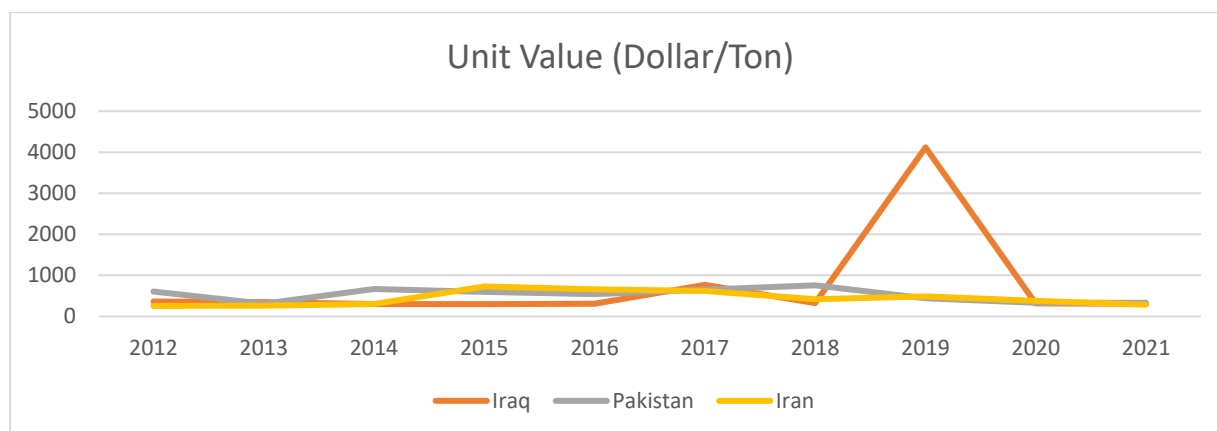
The above graph depicts the comparison of export value of dates exported to UAE from Pakistan, Iraq and Iran. It can be seen from the trend line that Iraq is the key player in UAE for dates export. From 2012 to 2021 UAE's date imports remained higher from Iraq as compared to Pakistan except 2020 where Pakistan had higher exports to UAE than Iraq. From the trend line it can be observed that Pakistan's market share have increased in UAE as compare to Iraq and Iran from 2012 to 2021.

Quantity



The above graph depicts the Quantity of Dates being exported to UAE from Pakistan, Iran and Iraq. It can be observed that Iraq remained the top supplier of Dates to UAE till 2019 but over the 10 years its share to UAE market has been declining. In 2020 Pakistan was the top supplier of dates to UAE however Pakistan was not able to retain the same position in 2021. Iran's date supplies to UAE have remain almost constant over the past 10 years.

Export Price



The above graph shows the export price of Dates to UAE from Pakistan, Iraq and Iran. It can be observed the price of Iraq and Iran remained constant where as Pakistan's price had declined over the last ten years from 604 dollar/ton to 330 dollars/ton in 2021.

GERMANY

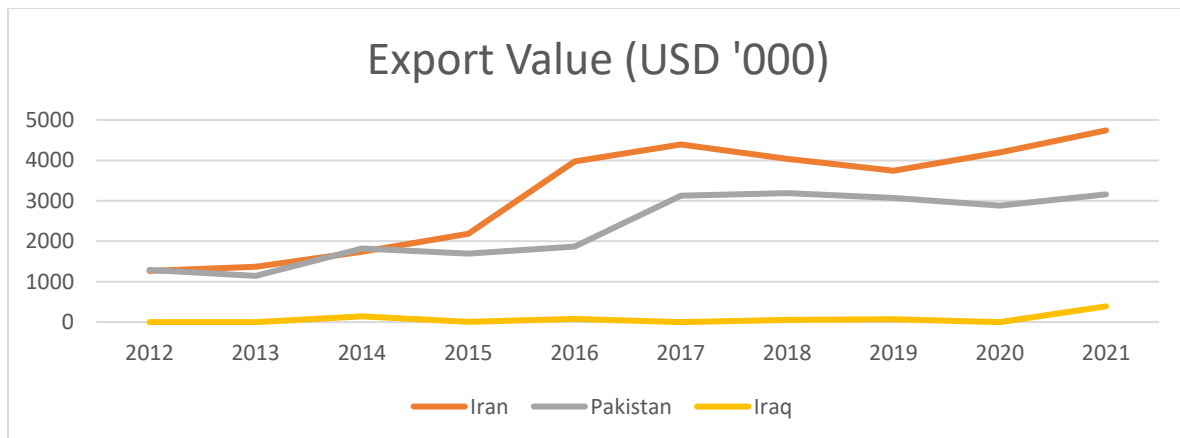
Germany is 6th largest dates importing market in the world in 2021 Germany imported 29,081 tons dates worth 85.6 million dollars making 4% share in the total world imports. It is also the 3rd largest customer of Pakistan dates, however Pakistan is only able to capture 3.7% share in Germany's market.

Exporters	Value imported in 2021 (USD thousand)	Quantity imported in 2021	Share in Germany's imports (%)	Unit value (USD/unit)	Average tariff (estimated) applied by Germany (%)
World	85,601.00	29,081.00	100.00	2,944.00	
Tunisia	34,785.00	11,675.00	40.60	2,979.00	5.10
Algeria	7,360.00	3,162.00	8.60	2,328.00	5.10
Israel	7,008.00	1,008.00	8.20	6,952.00	-
Iran	4,740.00	2,658.00	5.50	1,783.00	7.70
France	4,139.00	946.00	4.80	4,375.00	-
Pakistan	3,155.00	3,270.00	3.70	965.00	-

Table 19 Germany Market

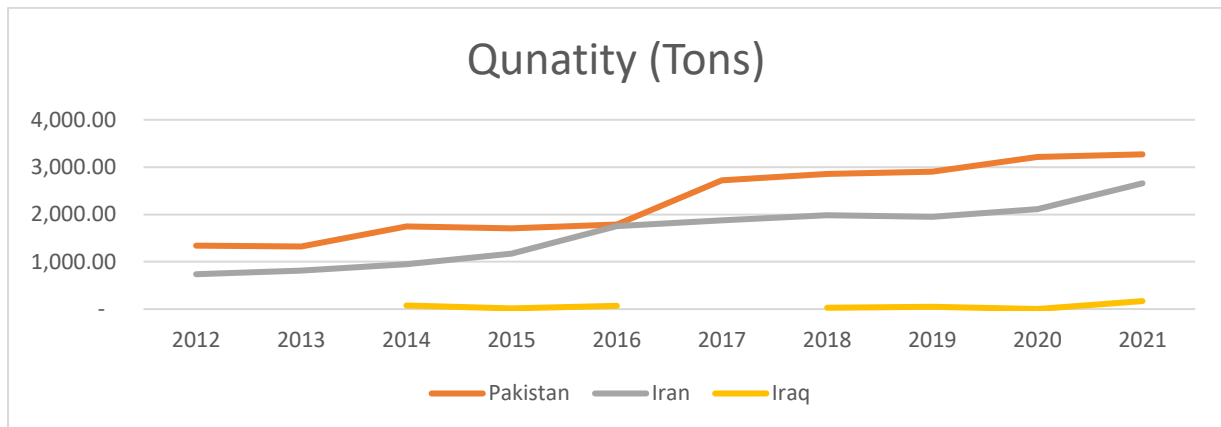
Comparison of Dates Export to Germany from Pakistan, Iraq and Iran

Export Value



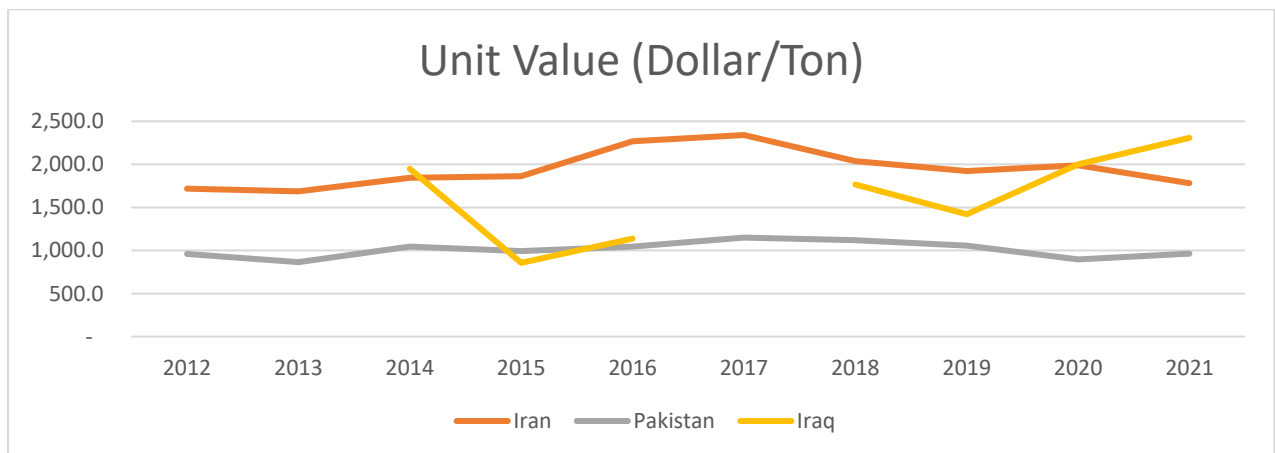
The above graph depicts the comparison of export value of dates exported to Germany from Pakistan, Iraq and Iran. It can be seen from the trend line that Iran is the key player in Germany for dates export. From 2012 to 2021 UAE's date imports remained higher from Iran as compared to Pakistan. The trend line shows that Pakistan's market share have increased in Germany from 2012 to 2021.

Quantity



The above graph depicts the Quantity of Dates being exported to Germany from Pakistan, Iran and Iraq. It can be observed that Pakistan remained the top supplier of Dates to Germany in the last 10 year, followed by the Iran. Iraq has very little market share in terms of quantity as compared to Iran and Pakistan.

Export Price



The above graph shows the export price of Dates to Germany from Pakistan, Iraq and Iran. The price of Pakistani dates remained almost the same over the 10 years in Germany market. However, there was little bit increase in price from 2016 to 2018, but the prices reverted back to same position that was in 2012 and 2013.

United Kingdom

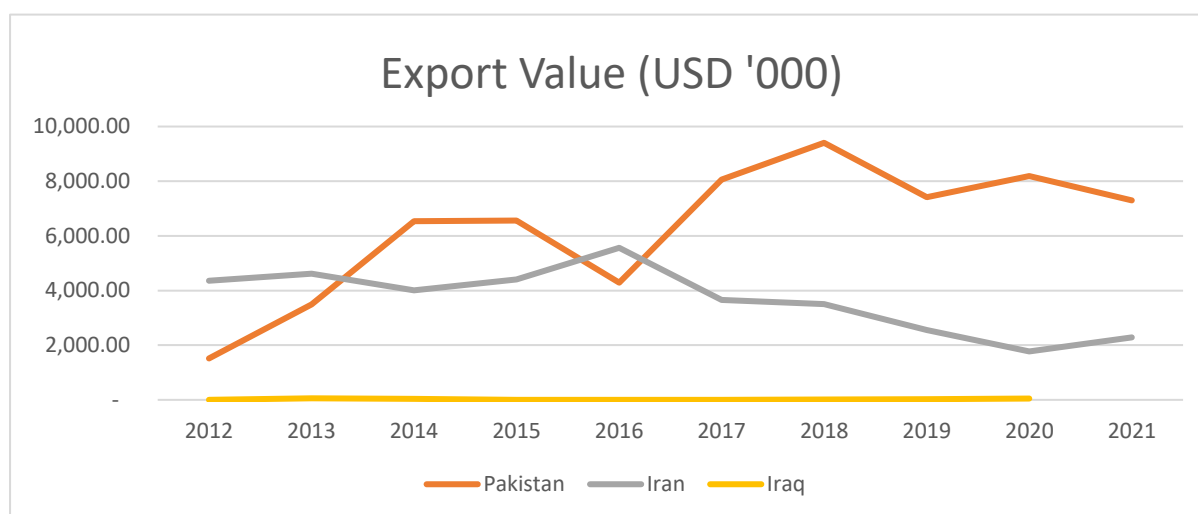
United Kingdom is the 7th largest dates importing market in the world in 2021. UK imported 26,432 tons dates worth 80.5 million dollars making 4% share in the total world imports. It is also the 2nd largest customer of Pakistan dates, however Pakistan is only able to capture 9.1% share in United Kingdoms' market.

Exporters	Value imported in 2021 (USD thousand)	Quantity imported in 2021	Share in Germany's imports (%)	Unit value (USD/unit)	Average tariff (estimated) applied by Germany (%)
World	80476	26432	100	3045	
Israel	25082	3979	31.2	6304	0
Pakistan	7295	6374	9.1	1144	0
Saudi Arabia	7182	2984	8.9	2407	7.7
Tunisia	6711	2419	8.3	2774	5.1
Jordan	5706	1082	7.1	5274	0

Table 20 United Kingdom Market

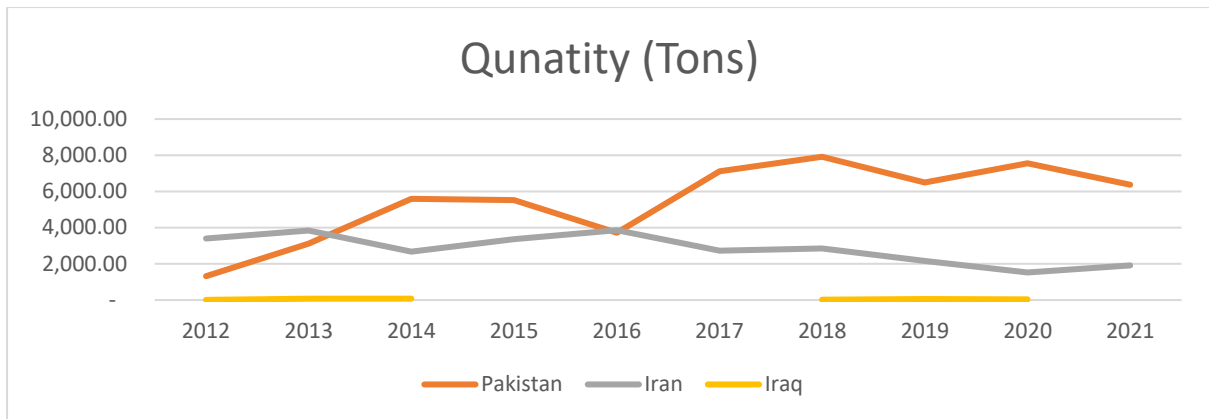
Comparison of Dates Export to United Kingdom from Pakistan, Iraq and Iran

Export Value



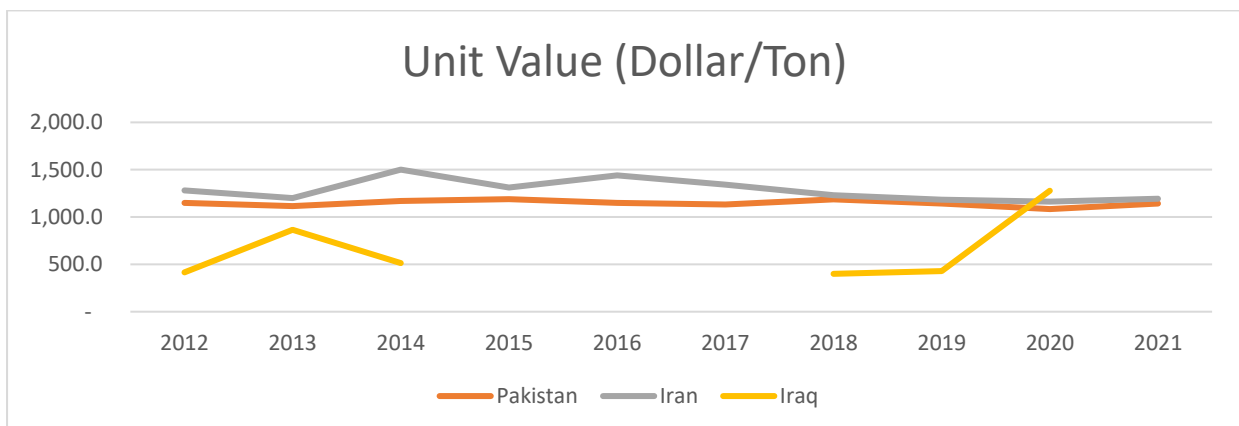
The above graph compares export value of dates, exported to United Kingdom from Pakistan, Iraq and Iran. It can be seen from the trend line that Pakistan and Iran are the key players of date exports to United Kingdom. From 2012 to 2021 both the countries have been in competition in capturing UK's market share, however Pakistan has achieved a significant market share in 2018.

Quantity



The above graph depicts the Quantity of Dates being exported to United Kingdom from Pakistan, Iran and Iraq. It can be observed that Pakistan and Iran remained the top supplier of Dates to United Kingdom in the last 10 year, followed by the Iran. Iraq has very little market share in terms of quantity as compared to Iran and Pakistan

Export Price



The above graph shows the export price of Dates to United Kingdom from Pakistan, Iraq and Iran. The price of Pakistani dates remained almost the same over the 10 years in United Kingdom market. The price of Irani dates in the UK’s market is higher than the price of Pakistani dates.

Türkiye

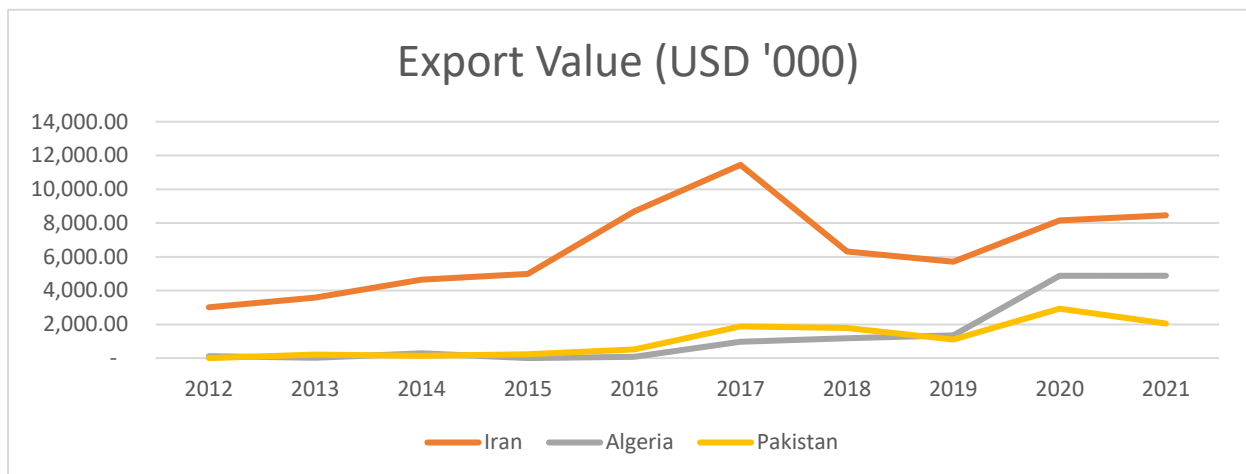
Türkiye is 11th largest dates importing market in the world in 2021. Türkiye imported 56,1098 tons dates worth 63.8 million dollars making 3.1% share in the total world imports. It is also the 4th largest customer of Pakistan dates, however Pakistan is only able to capture 3.2% share in Türkiye market.

Exporters	Value imported in 2021 (USD thousand)	Quantity imported in 2021	Share in Germany's imports (%)	Unit value (USD/unit)	Average tariff (estimated) applied by Germany (%)
World	63,794.00	56,109.00	100	1,137.00	
Jordan	3,014.00	1,098.00	4.7	2,745.00	15
Pakistan	2,054.00	3,009.00	3.2	683.00	15
Iraq	1,572.00	4,791.00	2.5	328.00	15
UAE	677.00	739.00	1.1	916.00	15

Table 21 Türkiye Market

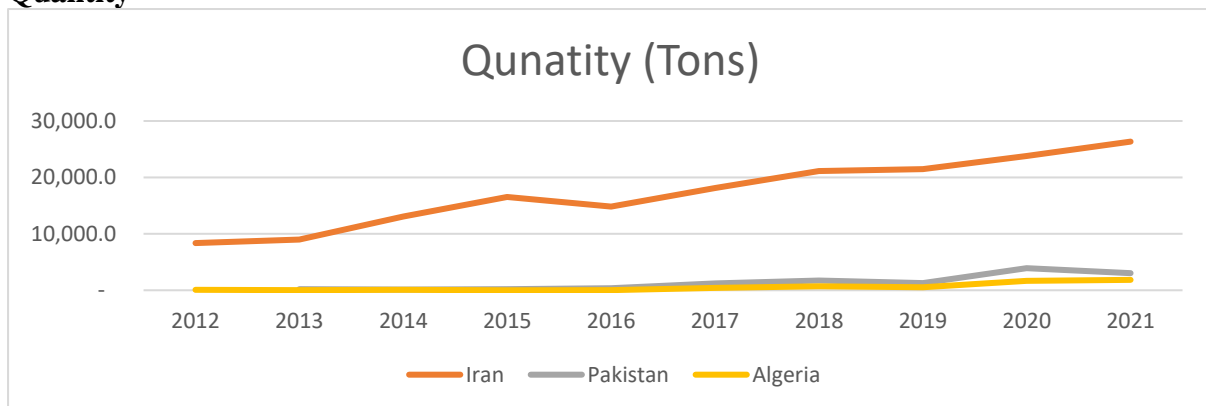
Comparison of Dates Export to Türkiye from Pakistan, Iran and Algeria

Export Value



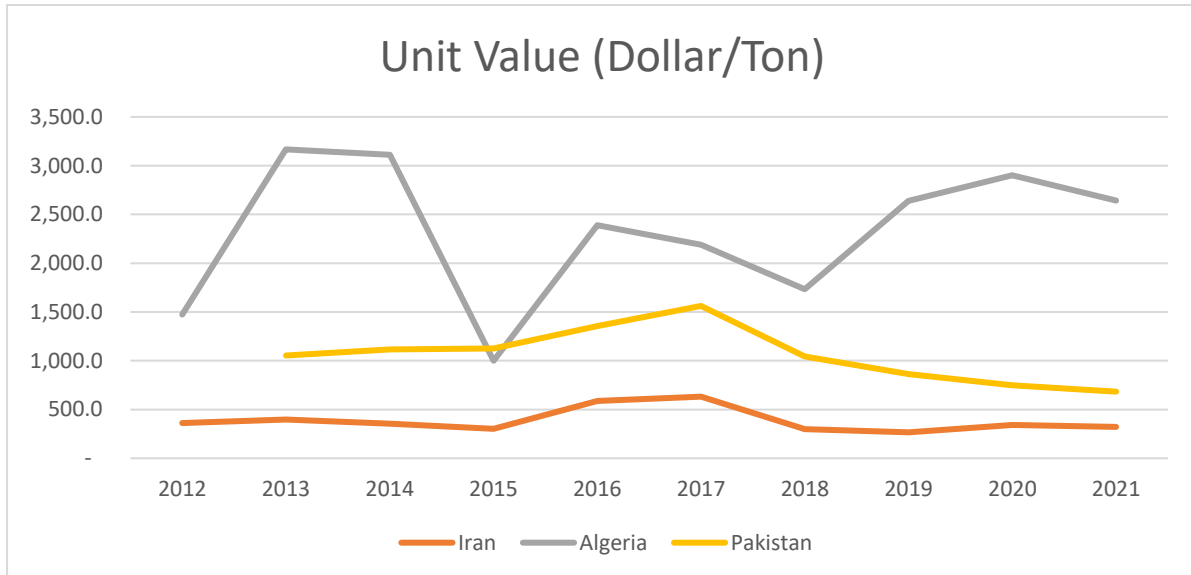
The above graph compares export value of dates, exported to Türkiye from Pakistan, Iraq and Algeria. It can be seen from the trend line that Iran players of date exports to Türkiye. From 2012 to 2021 Algeria and Pakistan have been in competition in capturing Türkiye market share, however 2019 till date Algeria have captured more market in Türkiye than Pakistan.

Quantity



The above graph depicts the Quantity of Dates being exported to Türkiye from Pakistan, Iran and Algeria. It can be observed that Iran remained the top supplier of Dates to Türkiye in the last 10 year, followed by the Pakistan and Algeria.

Export Price



The above graph shows the export price of Dates Türkiye from Pakistan, Iraq and Algeria. The price of Pakistani dates remained almost the same over the 10 years in United Kingdom market. The price of Pakistani dates in Türkiye market have decreased over the time of 10 years.

Dates Value Added Products

Dates are one of the highest fruits that contain fructose as a sugar component. Fructose is a fully fermentable sugar and is completely converted to ethyl alcohol by the fermentation process. The demand for medicinal alcohol, date paste, date syrup, date sugar, etc. is very high.

Animal Feed Using Date Pits, Discarded Dates and Other Ingredients

There is large use of animal feed in India, Middle East and also in the European Countries. It helps to increase the animal health. It is used as feed for the animal growth and nutrition. Due to globally increase of population there is sharp decrease of green fields used for animals. According to observation there is globally increase of population about 0.5% per annum. There is demand of animal feed increase 1.5-2% per annum. It can be concluded that there is very big demand created globally in every year. So, there is very good scope for new entrepreneur who can manufacture well balanced animal feed.¹⁴

Medical Alcohol from Date Juice Concentrate

Date is one of the best fruits, which contains fructose as sugar ingredients, which is totally fermentable sugar and can be completely converted to ethyl alcohol by fermentation process. Hard envelope of date palm pollen is used as a sedative and calmative compound in Iranian traditional medicine. About 10–50% of produced dates are wasted annually, depending on the country, which could be converted to biofuels.

Date Syrup

Date syrup is high in the simple sugars glucose and fructose, and because most of the sugar is absorbed into the bloodstream in the mouth, it raises blood sugar more quickly and efficiently than other syrups. Therefore, it is very suitable for people with hypoglycemia, sucrose intolerance, or pancreatic problems who have difficulty absorbing disaccharides. Date syrup market is segmented by type, end use, distribution channel, package type and region. On the basis of nature, the date syrup market can be split into organic and conventional. Based on

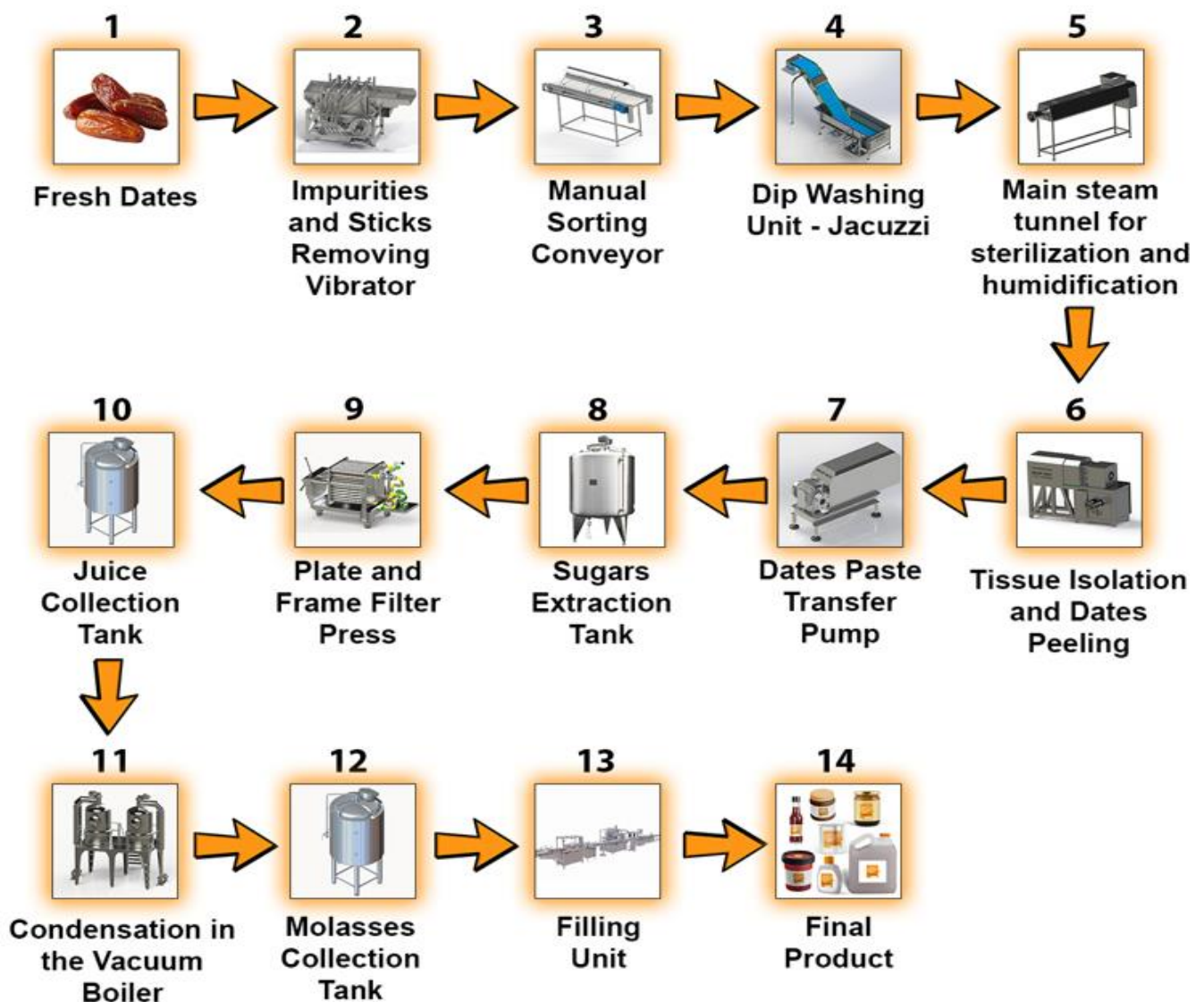
¹⁴ (Khanal, n.d.)

end use, the date syrup market can be segmented into household and commercial. In commercial applications, it can be used in various B2B industries such as the bakery industry to process a variety of baked goods. Based on packaging, it can be divided into jars, cans/tubs and squeeze bottles.

Dates Syrup Processing and Filling Line

The Dates Syrup Processing and Filling Line produces pure date syrup, at a controlled concentration up to Brix 78. The line works starting from dates to packaging in glass, plastic or metal containers of various sizes and shapes as requested. This line is characterized by a high production capacity of up to 10 tons per day, and the work in it is done completely automatically and without the intervention of the labor, and it is also characterized by the presence of Clean in Place system (CIP), that guarantees washing the entire line with hot water and chlorine to clean and sterilize all parts of the line and pipes from inside.

Flowchart - Dates Syrup Processing and Filling Line



The line produces syrup from dates, which first goes through the stages of cleaning and purification from impurities and sticks and washing within the dip washing unit, then the dates pass through a steam tunnel that ensures sterilization of the dates and moisturizing them with steam in preparation for the peeling process within the tissue removal and peeling unit, then the resulting paste is pumped through a special pump to the double wall sugars extraction tank, where water is added to this tank automatically with mixing and homogenization to ensure the homogeneity of the resulting sugar juice, then the resulting liquid passes through a plate and frame filter press that filters the liquid from sediments and tissues, and the resulting liquid is transferred to a collection tank in preparation for its condensation. Then, the condensation takes place within the vacuum boiler that works to condense the liquid at a relatively low temperature and low pressure, which ensures preserving the properties of the resulting syrup, which is finally transferred to the collection tanks in preparation for the filling phase.

The line is provided upon request with equipment to fill the required packages and carton them up to the stage of making them ready for shipment as a final product, where the line can be equipped with a plastic gallon filling machine with a capacity between 10-25 kg, and the line can also be equipped with a small glass, plastic or metal packaging line (100 mL - 1 liter).

Technical Information

- **Machine structure:** Made of Food grade Stainless Steel (L 304)
- **Electrical Specifications:** 3 Phase | 380 V | 50-60 Hz
- **Mechanical Parts:** Made of Food grade Stainless Steel (L 304), only motors and some mechanical parts are made of aluminum, steel and copper
- **Bearing:** SKF
- **Engines and Gearboxes:** Turkish industry with European franchise
- **Main Controller:** Omron
- **Touch Screen and Control:** Omron touch screen control – It controls all operations of the machine, and includes four different languages
- **Pneumatic Control Systems:** Festo

Description

Dates Syrup Processing and Filling Line is one of the most important food processing machines, the line produces molasses at a concentration up to 78 Brix, from dates to packaging in different packages according to demand.

- **Code:** SM-235
- **Productive capacity:** 1 - 10 Ton per day
- **Materials:** Dates, Dates Paste, Dates Molasses, Dates Jam, Dates Syrup, Dates Vinegar

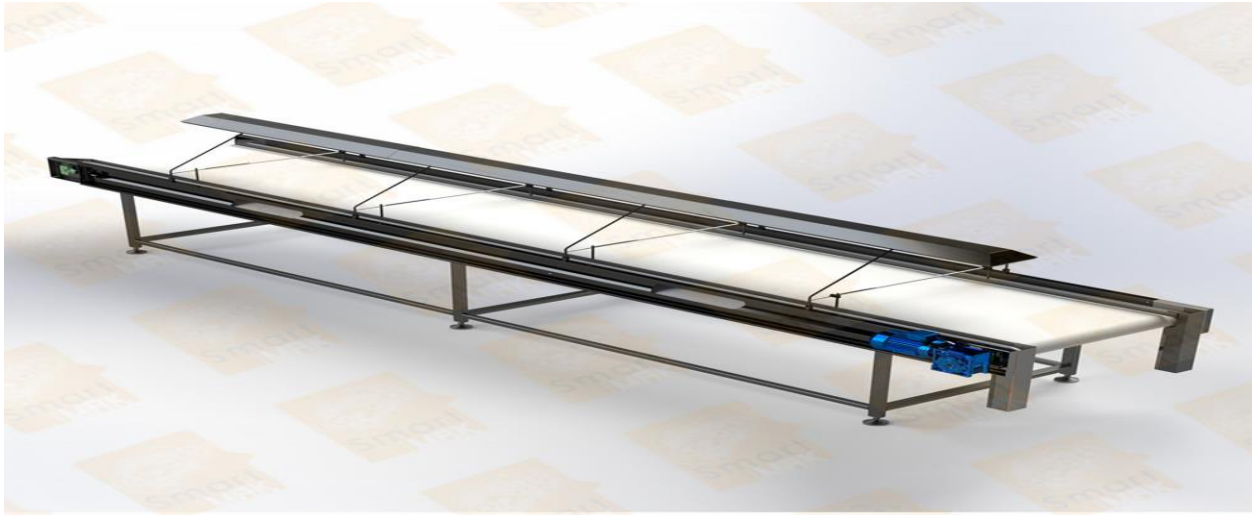
Production Lines Accessory



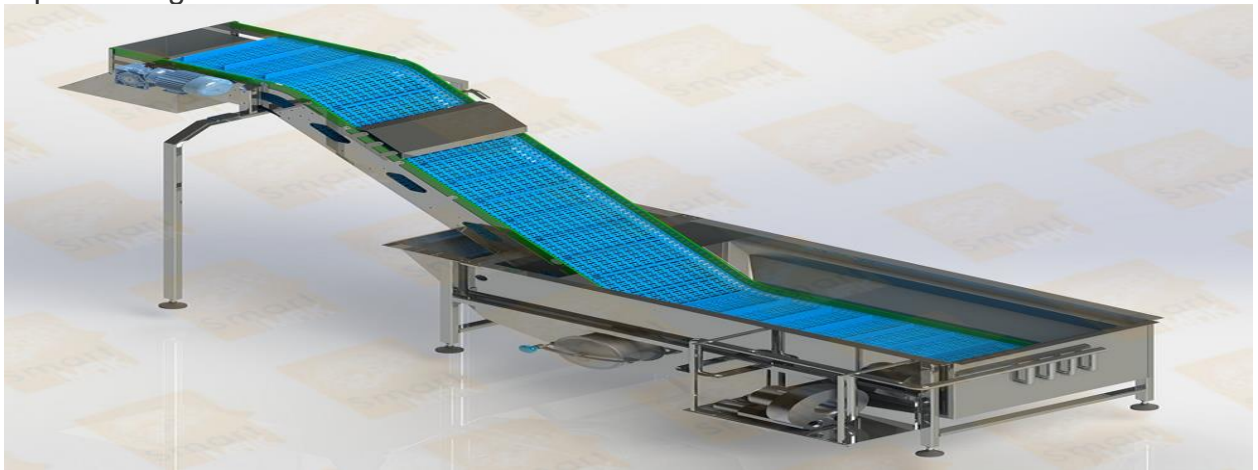
Impurities and Sticks Removing Vibrator



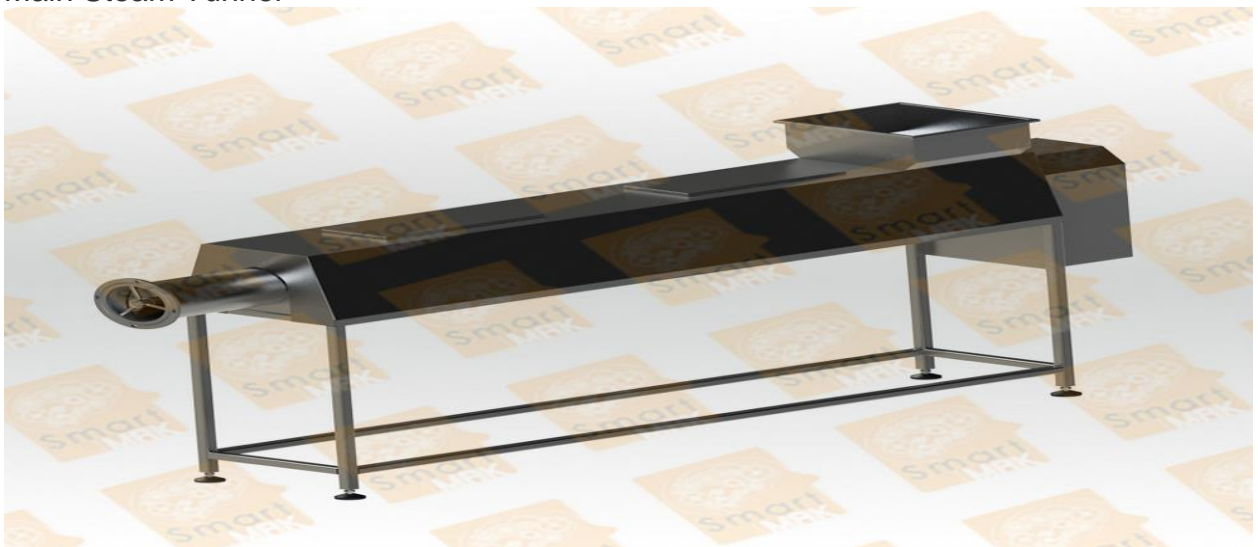
Visual Inspection and Sorting Conveyor



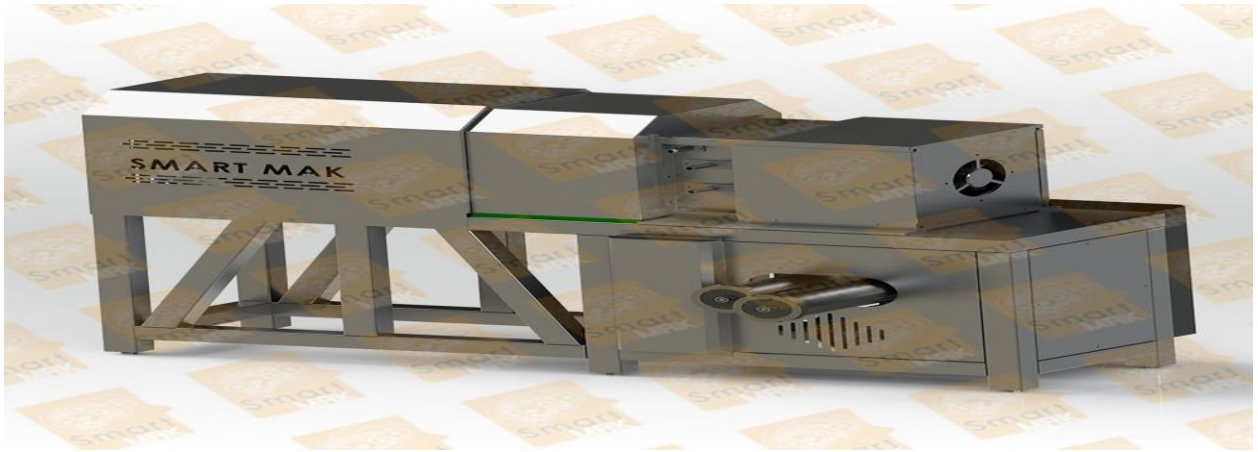
Dip Washing Unit – Jacuzzi



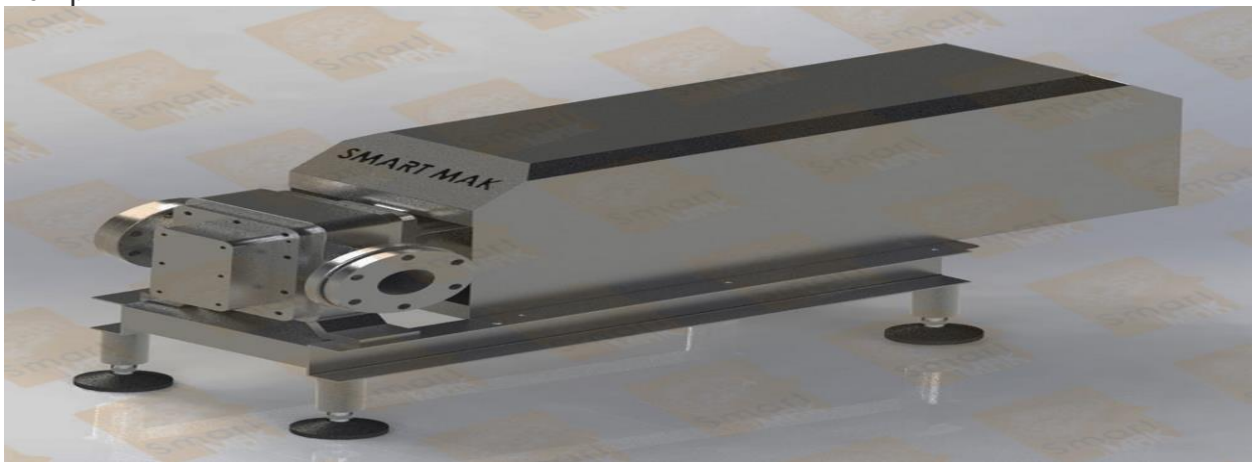
Main Steam Tunnel



Tissue Isolation and Dates Peeling Machine



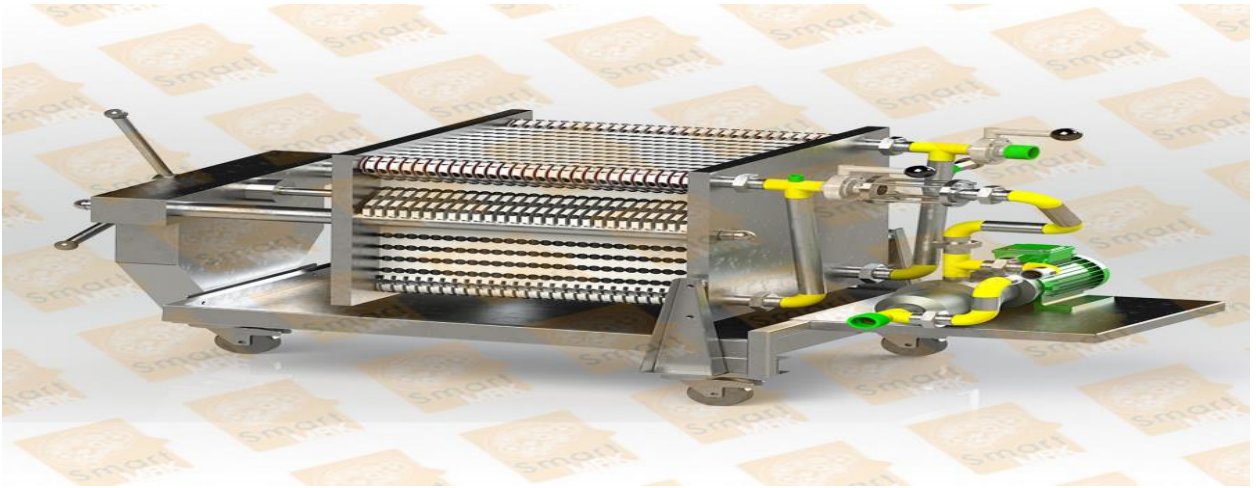
Pump



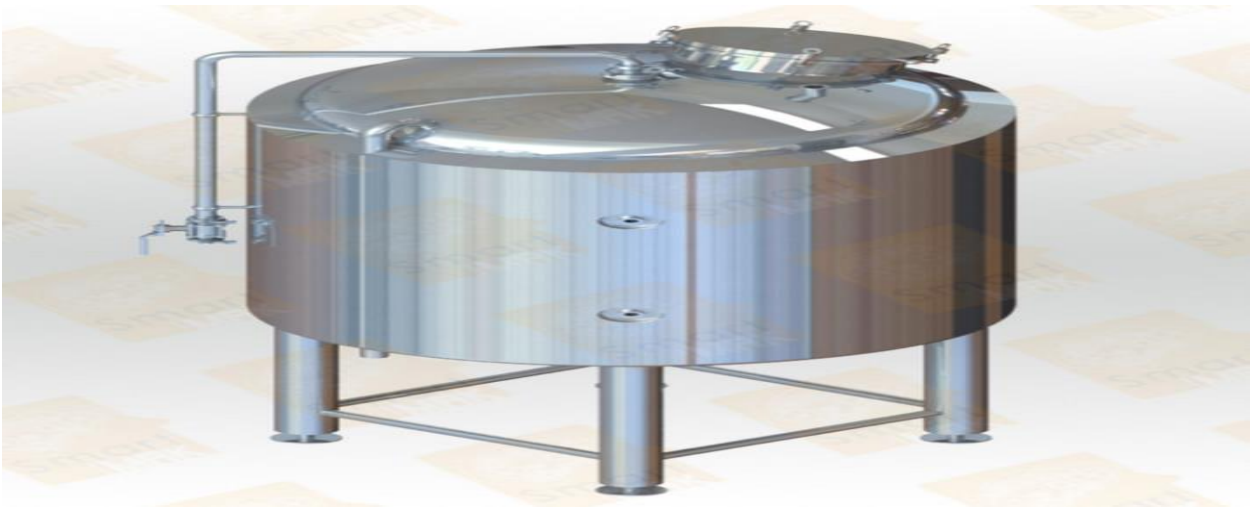
Double Jacket Tank with Mixer



Plate and Frame Filter Press



Double Jacket Tank



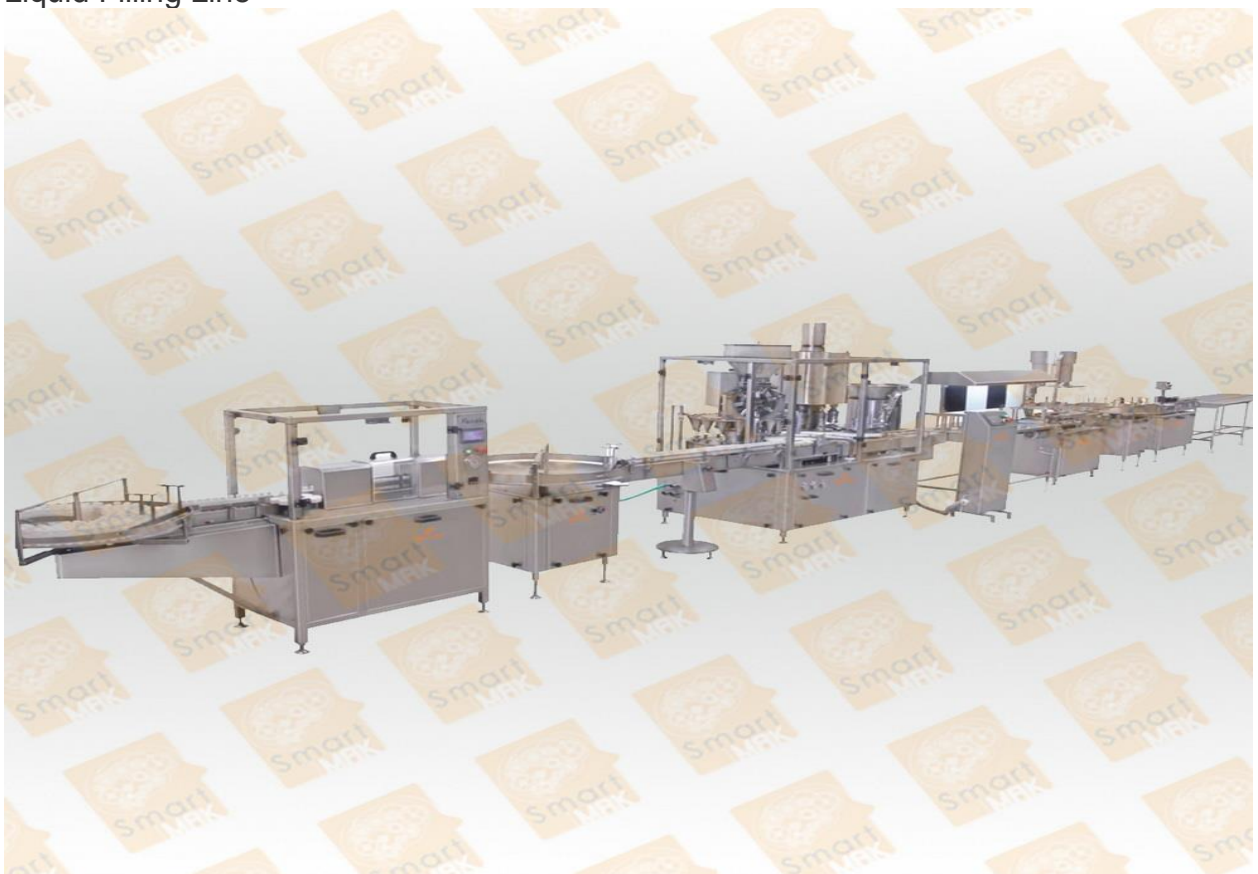
Vacuum Boiler



Clean in Place System – CIP



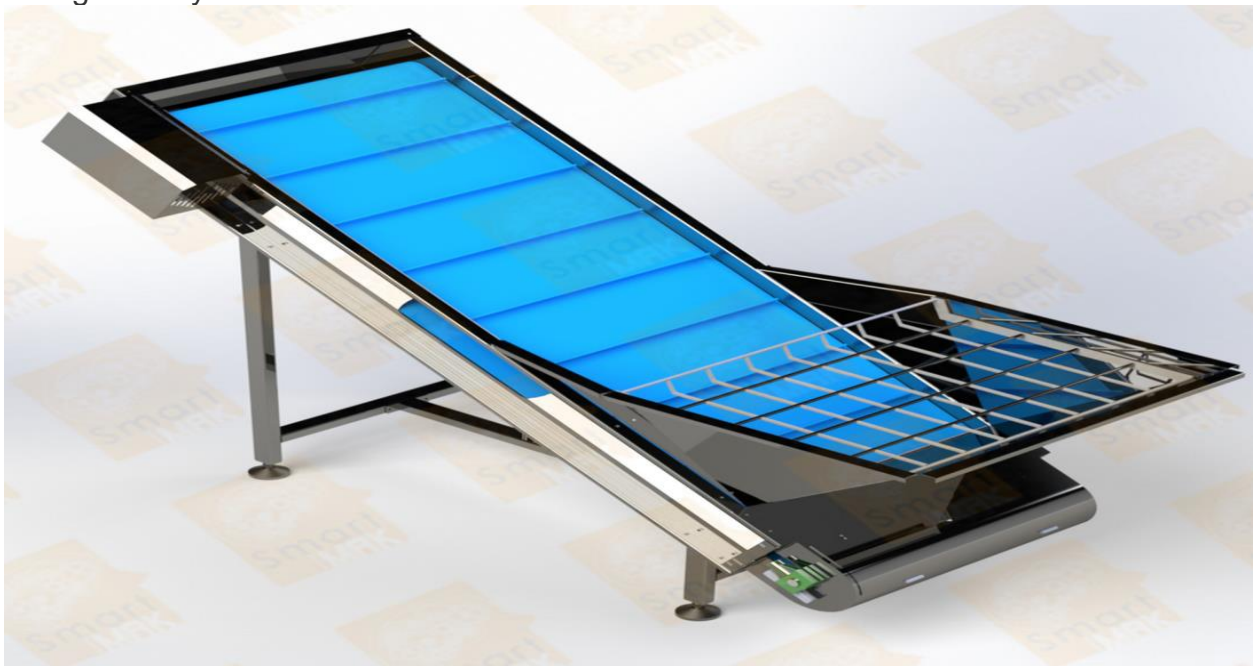
Liquid Filling Line



Semi-automatic Liquid Filling Machine



Lifting Conveyor



Final Product Shape





Date Paste

Date paste is one of the healthiest food ingredients on earth. Made from 100% date ingredients, date paste can be used as a natural sweetener to substitute regular, granulated white sugar. It doesn't just add sweetness. It provides vitamins, minerals, fiber, and carbohydrates as well. Date paste can be used as a sugar replacement. Due to its consistency and flavor, date paste is a fantastic addition to moist baked goods like brownies, cakes, and muffins. It is also a great binder for bars. It may be used as an all-natural substitute for sugar, which is perfect for gluten-free recipes.

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