Proceedings:
International Conference on
Mango and Date Palm: Culture and Export.
20th to 23rd June, 2005.
Malik *et al.* (Eds), University of Agriculture, Faisalabad.

PRESENT SCENARIO AND FUTURE PROSPECTS OF DATE INDUSTRY

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ABSTRACT

Date fruit is an important article of food and trade of many countries and the most important commercial dried fruit in the world market. The world production of dates has increased many fold in the previous few years. Contribution of top 10 countries in date production in more than 90% which means that most of the world date production is concentrated in a few countries. Pakistan stands at 5th position among date producing countries of the world but attention must be paid towards production technology for enhanced average yield per hectare. As far as export of dates in the world market is concerned, after Iran, Pakistan stands at 2nd followed by UAE, Tunisia and Saudi Arabia. In total date export, volume share of dried date is much more than that of fresh dates and the major share of this export volume go to India. Pakistan must look forward for other highly priced importing countries of the world. Also, average unit price (AUP) of fresh dates is more than that of dried dates, so by increasing the export of fresh date, more foreign exchange can be earned. AUP earned by Pakistani dates is much lower which can be enhanced just by improving post-harvest techniques. Share of only top 5 date exporting countries is more than 85%. Of these, Tunisia achieves high export price which is due to their strategy of targeting the high valued European markets while major exporting countries like Iran and Pakistan, achieved much lower prices because majority of their fruit that is exported is sold in bulk for the market in India. Asia dominates the export market by far in terms of volume but Africa has more share of the market in terms of value which reflects Africa's strategy to target the high value markets of Europe. Asia on the other hand is exporting lower quality dates at much lower prices, mainly to India. Europe, predominantly France, a non-producing region, earns good average unit price which it achieves on its re-exports mainly to other European countries. In this way, knowledge of prices, pricing patterns and the capacity to analyze the economic forces that cause and change those prices will be a necessary to help make effective marketing decisions.

Key words: Date, Pakistan, world, production, import, export, average yield, average unit price.

INTRODUCTION AND IMPORTANCE

The date palm offers a good food source of high nutritive value. Dates contain protein, fats, salts, carbohydrates and vitamins, in an easy assimilative form. One pound of date supplies the human body with 1275 calories of energy (Ahmad and Farooqi, 1971). The date fruit is source of vitamin 'A' and a fair source of vitamin 'B' and 'C'. It is also a good source of minerals. Due to high nutritive value, this fruit is an important article of food in most of the Middle Eastern countries. Even in Pakistan, during its ripening season, most of the population in the date growing areas largely depends on this fruit as food for subsistence.

The botanical name of the date palm, *Phoenix dactylifera L.*, is derived from Phoenician name "phoenix", which means date palm, and "dactylifera" derived from a Greek word "daktulos" meaning a finger, illustrating the form of the fruit (Linné, 1734). Pliny (1489) and Van Zyl (1983) referred this botanical name to the legendary Egyptian bird, "*Phoenix*", which lived to be 500 years old, and cast itself into a fire from which it rose with renewed growth. This resemblance to the date palm, which can also re-grow after fire damage, makes the bird and the date palm share this name, while "*dactylifera*" originates from the Hebrew word "dachel" which describes the fruit's shape (Popenoe, 1938).

In remote areas of many date growing countries, this tree provides food and working conditions to a considerable number of labourers. Furthermore, the date palm tree tolerates relatively harsh climatic and soil conditions under which no other crop may give reasonable returns. Date palm provides protection to under-crops from heat, wind and even cold weather, and plays a big role to stop desertification and to give life to deserted areas. Its fruit generate good income and foreign exchange earnings. Its dried fruit bunches; fronds, leaflets fiber and trunks are utilized in many small industries. Infact the tree and fruit by-products offer an extra income (Djerbi, 2002).

DATE INDUSTRY IN PAKISTAN

Pakistan has an estimated total area of 734.6 thousand hectares under all fruits with a total production of 5712.6 thousand tones annually (Anonymous, 2004) in which dates shares about 10.18% by acreage and 7.47% by production. In Pakistan, date palm fruit is used as Doka, dung and cured dates. People like it due to its delicious taste and high nutritive value. Cured dates are liked for their readily melting quality. Dates can successfully be grown in areas where hot and dry season prevails during its ripening period i.e. July-August. These are mainly grown in Bahawalpur, Rahim Yar Khan, Multan and Dera Ghazi Khan Districts of Punjab, Sukhar division of Sindh, Turbet and Mecran of Baluchistan and Dera Ismail Khan Division of NWFP (Asi et al., 2002).

Pakistan stands at 5th position among date producing countries of the world (Table 1) where as an average yield (tonnes/hectare) is concerned, it stands at 4th position which clearly indicates that Pakistan must pay attention towards its production technology for enhanced average per hectare yield. The average yield of date palm in Pakistan is 7.62 tonnes/hec. (Table 1) which is low as compared to other major date producing countries of the world i.e. Egypt (33.43 t/hec.) and China (16.25 t/hec.). Low yield in Pakistan is mainly due to poor soil, soil salinity, insect and disease infestations, poor management and shortage of trained personnels to introduce improved production technology. These are the factors responsible for steady average per hectare yield for the past few years. Some times the high cost of production and low prices of the produce, tend the farmers to neglect or even abandon their orchards. There is need to increase per hectare yield of date palm orchards by proper management practices following the recommendations of the department.

As far as export of dates in the world market is concerned, Table 2 provides data on export of dates of different countries. In this regard, Iran is at 1st position and Pakistan stands at 2nd followed by UAE, Tunisia and Saudi Arabia.

In this total export of dates, share of dried date is much more than that of fresh dates i.e. 95.95% by quantity and 94.35% by value (Table 3). This clearly indicates that in the total export of dates, the dried dates are of major concern and only India imports 90% of our exported dried dates. Table 3 shows an increasing trend in the export of fresh as well as dried dates from Pakistan.

No doubt, Pakistan is at 5th position by production (Table 1) and 2nd position by export quantity of dates (Table 2) but major share of date export is captured only by dried dates which is more than 95.95% whereas share of fresh dates in total date export is very low i.e. 4.05% (Table 3). In world market, average unit price of fresh Pakistani dates (474.1$/tonne) is more than that of dried dates i.e. 327.7$/tonne (Ahmed, 2004) which indicates that by increasing the export of fresh date, more foreign exchange can be earned when compared with dried dates and Pakistan has potential to increase its fresh date export than many other major date growing countries of the world. In this regard, there is need to search for more date importing countries. Among total export of dried dates from Pakistan, the major share (>90%) goes to India. Pakistan should not confine her dried date export only to India but must look forward for other target countries of the world.

It is worth mentioning that Pakistan is receiving more average unit price ($/tonne) from dates as compared to citrus and mango, which are the top position holders by area and production. But when date industry of Pakistan is observed in international perspectives, this concept looses its grip. There are countries which are earning more than 3500 $/tonne where as Pakistan earns 343.47$/tonne from date fruit (Table 4). Thus instead of being at 2nd position among top date exporting countries by quantity, Pakistan stands at 14th position with respect of average unit price among top 15 date exporting countries. Apart from the varietal difference, poor post-harvest handling, inadequate packaging and presentation techniques are the major causes of low prices. Just by improving these techniques, Pakistan can get more unit price and enhance her foreign exchange earnings many fold from the same quantity being exported. So it can be concluded that date industry of Pakistan has much potential for developing the economy of the country. If Pakistan is serious about increasing her foreign exchange earnings and uplift her economy, it need of the time is to pay due attention to this field.

DATE PALM DISTRIBUTION AND DATE PRODUCTION OF THE WORLD

History shows the date palm is a traditional crop in the old world. It is only in recent years that the date palm has been introduced as modern plantations in USA, Israel and in the southern hemisphere. The world production of dates has increased from about 1.8 million tonnes in 1961 to 2.8 million in 1985 and 6.04 million in 2005 (Anonymous, 2005). The increase of 3.24 million tonnes since 1985 represents an annual expansion of about 5%. Only Egypt, Saudi Arabia, Iran, UAE and Pakistan produce more than 70% of dates of the world. If the next five most important countries are included, i.e. Algeria, Sudan, Oman, Libya and China, then this percentage rises to 93.6%. This clearly indicates that most of the world's date production is concentrated in a few countries in the same region, as clear from the figure 1, too. Major producers are Egypt, Iran, Saudi Arabia, United Arab Emirates, Pakistan, Algeria, Sudan, Libya, China and Tunisia (Table 1).

The date fruit, which is produced largely in the hot arid regions of Southern Asia and North Africa, is marketed all over the world as a high valued confectionery or fruit, and remains an extremely important subsistence crop in most of the desert regions (Glasner and Botes, 2002). As, world production of dates is more than the combined production of dried figs, prunes and raisins (Dowson, 1962); therefore, the date becomes the most important commercial dried fruit in the world market.

WORLD'S DATE EXPORT PROFILE

The international trade of dates is volatile. Changes are often associated with political and economic instability in the main producing countries. Unseasonable weather also leads to production and storage losses (Botes and Zaid, 2002). World trade figures indicate that about 94% of the date harvest is consumed locally and that by far the majority of these palms are not of the well-known export varieties. Over the recent period, date exports increased by only 25%. Increase has been rapid in Oman, the United Arab Emirates, Egypt and Pakistan. Conversely, output decreased in Iraq (due to the trade embargo) and Morocco (due to phytosanitary problems).

According to trade statistics of 2004, top five date exporting countries (by quantity) are Iran, Pakistan, UAE, Saudi Arabia and Tunisia. The percent share of only these countries is more than 85% in world date export (Fig. 2). Of these five countries, only Tunisia achieved high export prices. Its AUP was US$ 2087 per tonne which was due to her strategy of targeting the high valued European markets while major exporting countries in terms of volume, i.e. Iran and Pakistan, achieved much lower prices, US$ 385 and 343 respectively in 2004. The majority of their export is bulk marketed in India (Table 4).

Prices varied greatly according to the variety, quality, season, type of packaging and market destination. The average export price per tonne in 1996 was in the order of US$ 3100 in the case of France (re-export) while Algeria and Tunisia achieved US$ 3500 and US$ 2600 per tonne respectively. To confirm these statistics, Botes and Zaid (2002) obtained prices from a number of markets and agents in Israel, which are summarised in Table 5. According to Israeli farmers, in 1996 dates were the best crop and financially outperformed any other farming activity, especially under harsh climatic conditions. In the case of an Israeli farmer, 1 hectare of dates of the Medjool variety ensured in 1996 an average income of US$ 37800 per annum, based on farm gate-price of US$ 3500 per tonne and an expandable quantity of 10.8 tonnes/ha.

Figure 3 reflects the export market share (%) during 2004 in terms of volume exported and foreign exchange earned per region. Asia dominates the export market by far in terms of volume i.e. 82.57%, but further analyses show that Africa has 26.79% of the market in terms of value, while it represents only 11.88% in terms of quantity. This is a clear reflection of Africa's strategy to target the high value markets of Europe. Asia on the other hand is exporting lower quality dates at much lower prices, mainly to India.

Europe, predominantly France, a non-producing region, has 2.38% by volume of the market share through its re-exports of dates originating from Africa (Table 2). In 2004, France earned US$ 2635 per tonnes which it achieves on its re-exports mainly to other European countries. France's strategy is to import good quality fruit in bulk and then repack in Marseilles into "glove boxes" for the higher income market. In this way, knowledge of prices, of pricing patterns and the capacity to analyze the economic forces that cause and change those prices will be a necessary condition to help make effective marketing decisions.

WORLD'S DATE IMPORT PROFILE

The top five date importing countries are India, Pakistan, Yemen, Morocco and UAE. Table 6 shows the import market share of the major importing countries in terms of volume and value of date imports. Although India's imports were 40 percent of the total volume traded, it represented only 13 percent of the market in terms of US dollar paid for date imports. European countries like France, Germany, the UK and Italy import much more expensive and, hence, higher quality dates. In contrast, countries such as India, the UAE and Malaysia import much cheaper and lower quality dates. Preliminary investigations showed that dates being imported into South Africa are of a lower quality, imported in bulk, and are mainly being processed for the baking industry (Table 7) (Botes and Zaid, 2002).

In 2004, the European Community imported 85,594 tonnes of date which of worth US$174 million (Table 8). France alone pays US$51 million per year for its imports. The total

value of European imports does, however, not reach the producing countries. It is estimated that about one third of all the dates imported into France are re-exported at a value of about US$20 million annually to other European countries (Botes and Zaid, 2002). The European Market is by far the largest date importer in value i.e. US$ 174 million in 2004 (Table 8). Within the European Community, France and the UK are the major markets, importing 24,140 tonnes and 12,744 tonnes, respectively.

The biggest market for top quality and high-priced dates is France, importing mainly from Tunisia and Algeria. France mainly imports the Deglet Nour variety and all imports are categorised as fresh. As with most of Europe, the main season for date sales is October to December and during Ramadan. The physical quality standards for dates imported into France are comparable to most other European countries. However, the French do tend to rely more on subjective criteria such as texture, flavour and colour than other European countries. It is interesting to note that France's imports during the months of March to August originate virtually all from the USA. The lower price indicates that the dates stored for such a long period are regarded as of a lower quality, or are a direct indication of prices responding to lower demand. Low volumes of dates are being imported during these months. Date imports reach their lowest mark in July and peak in November. The date market is highly seasonal. Most of the dates imported into France are packed loose into cartons and transported in containers. Tunisian cartons, the bench-mark for the trade, contain 5 or 10 kg and are repacked into "glove boxes" in Marseilles, one of the main importing centers in France.

The United Kingdom imports and consumes over 10000 tonnes annually and it is believed that there are good prospects for future expansion in the date market. Pitted dried dates for processing and home baking account for about 45 percent of the market. The market for dessert dates, either fresh, chilled or frozen, is the fastest growing segment. Dates imported into the UK originate mainly from Iran, Tunisia, Pakistan, France (re-exports) and the USA. Most of the dates imported are from a range of varieties and the market is more concerned with quality in terms of infestation, appearance and moisture levels than with a specific variety. According to a Commonwealth report, traditionally most of the dates consumed in the UK originated from North Africa and mostly packed in Marseilles in "glove boxes". Importers are, however, now starting to import directly from other countries, particularly the USA. The reason for this change is due to the fact that the level of infestation and use of agro-chemicals in North Africa is too high.

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TABLES

Table 1: Date production statistics of the world (2005)

#	Country	Prod. (000 tonnes)	Area (000 ha)	Avg. Yield (ton/ha)	Prod. Share (%)
1	Egypt	1,170.0	35.0	33.43	19.36
2	Saudi Arabia	900.5	145.0	6.21	14.90
3	Iran	880.0	185.0	4.76	14.56
4	UAE	760.0	186.0	4.09	12.58
5	Pakistan	625.0	82.0	7.62	10.34
6	Algeria	470.0	135.0	3.48	7.78
7	Sudan	330.0	35.0	9.43	5.46
8	Oman	238.0	34.0	7.00	3.94
9	Libya	150.0	28.0	5.36	2.48
10	China	130.0	8.0	16.25	2.15
	Others	389.4	153.6		6.44
	Total	**6,042.9**	**1,026.6**		

(Anonymous, 2005)

Table 2: Date export profile of different countries (2004)

S. No.	Country	Quantity		Value		*AUP ($/ton.)
		Tonnes	Share (%)	$ 1000	Share (%)	
1	Iran	94,584	26.88	36,430	12.56	385.16
2	Pakistan	65,429	18.59	22,473	7.75	343.47
3	UAE	59,457	16.89	13,001	4.48	218.66
4	Saudi Arabia	42,453	12.06	22,516	7.76	530.37
5	Tunisia	40,432	11.49	84,382	29.10	2087.01
6	France	8,386	2.38	22,099	7.62	2635.23
7	Algeria	8,133	2.31	14,563	5.02	1790.61
8	Israel	6,441	1.83	30,631	10.56	4755.63
9	Oman	4,752	1.35	2,180	0.75	458.75
10	USA	4,202	1.19	13,357	4.61	3178.72
	Others	17,664		28,384		
	World	**351,933**		**290,016**		

* Average unit price (Anonymous, 2005)

Table 3: Pakistan Date export profile (Quantity: 000 tonnes, Value: $ million)

Year	Fresh dates		Dried dates	
	Quantity	Value	Quantity	Value
1996-1997	7.459	3.526	53.446	21.467
1997-1998	10.233	4.623	55.491	22.463
1998-1999	6.698	3.738	41.914	17.305
1999-2000	6.672	3.33	57.545	20.655
2000-2001	6.622	2.409	73.334	23.499
2001-2002	4.654	2.126	72.817	26.120
2002-2003	3.353	1.612	67.791	22.841
2003-2004	2.645	1.232	62.784	20.584

(Ahmed, 2003; Anonymous, 2004)

Table 4: Date exporting countries by Average Unit price ($/tonne)

S. No.	Country	AUP ($/tonne)
1	Israel	4755.63
2	Netherlands	3814.36
3	Germany	3375.00
4	USA	3178.72
5	France	2635.23
6	Tunisia	2087.01
7	Algeria	1790.61
8	Jordan	749.04
9	Turkey	748.77
10	Saudi Arabia	530.37
11	Egypt	478.85
12	Oman	458.75
13	Iran	385.16
14	***Pakistan***	***343.47***
15	UAE	218.66

Table 5: Farm gate prices for export quality dates in Israel in 1996 (US $/kg)

Variety	Export price at farm gate
Medjool	3.5
Barhee	1.5
Deglet Nour	2.5
Hayany	0.6
Iraqi Varieties	0.7

Table 6: Date import profile of top ten importing countries (2004)

	Country	Quantity		Value	
		Tonnes	Share (%)	$ 1000	Share (%)
1	India	247,875	40.47	46,407	13.04
2	Pakistan	51,092	8.34	9,500	2.67
3	Yemen	33,192	5.42	13,919	3.91
4	Morocco	30,392	4.96	15,133	4.25
5	UAE	26,861	4.39	8,450	2.37
6	Russia	25,118	4.10	8,343	2.34
7	France	24,140	3.94	51,527	14.47
8	Syria	17,836	2.91	4,443	1.25
9	Malaysia	13,103	2.14	13,042	3.66
10	UK	12,744	2.08	26,327	7.40
	Others	130,069	21.0	158,895	45.0
	World	612,422		355,986	

Table 7: AUP of top date importing countries (Region wise–2004)

(AUP: $/tonne)

#	Africa	AUP	Europe	AUP	America	AUP	Asia	AUP
1	Morocco	498	France	2,135	Brazil	1,733	Pakistan	186
2	Ethiopia	451	UK	2,066	Mexico	1,391	Yemen	419
3	South Africa	1,412	Germany	2,153	Venezuela	2,118	Morocco	498
4	Tanzania	294	Turkey	292	Argentina	1,235	UAE	315
5	Kenya	351	Italy	2,410	Costa Rica	291	Syria	249
6	Senegal	2,751	Spain	2,630	Panama	2,213	Jordan	608
7	Tunisia	2,380	Netherlands	2,804	Uruguay	1,677	Turkey	292
8	Madagascar	513	Denmark	1,591	Dominica	2,053	Qatar	686
9	Mauritania	2,514	Belgium	3,368	Chile	1,400	Kazakhstan	451
10	Mauritius	1,497	Switzerland	4,590	Trinidad and Tobago	3,778	Lebanon	648
	Others	1,262	Others	1,656	Others	2,647	Others	635
	Total	581	Total	2,038	Total	1,623	Total	355

Table 8: Import profile of top ten date importing European Countries (2004)

	European Countries	Quantity		Value	
		Tonnes	%	$ 1000	%
1	France	24,140	28.2	51,527	29.5
2	United Kingdom	12,744	14.9	26,327	15.1
3	Germany	8,604	10.1	18,521	10.6
4	Turkey	8,224	9.60	2,405	1.40
5	Italy	7,092	8.30	17,092	9.80
6	Spain	6,039	7.10	15,880	9.10
7	Netherlands	2,535	3.00	7,109	4.10
8	Denmark	2,034	2.40	3,237	1.90
9	Belgium	1,921	2.20	6,470	3.70
10	Switzerland	1,893	2.20	8,689	5.00
	Others	10,368	12.0	17,170	10.0
	Total	**85,594**		**174,427**	

FIGURES

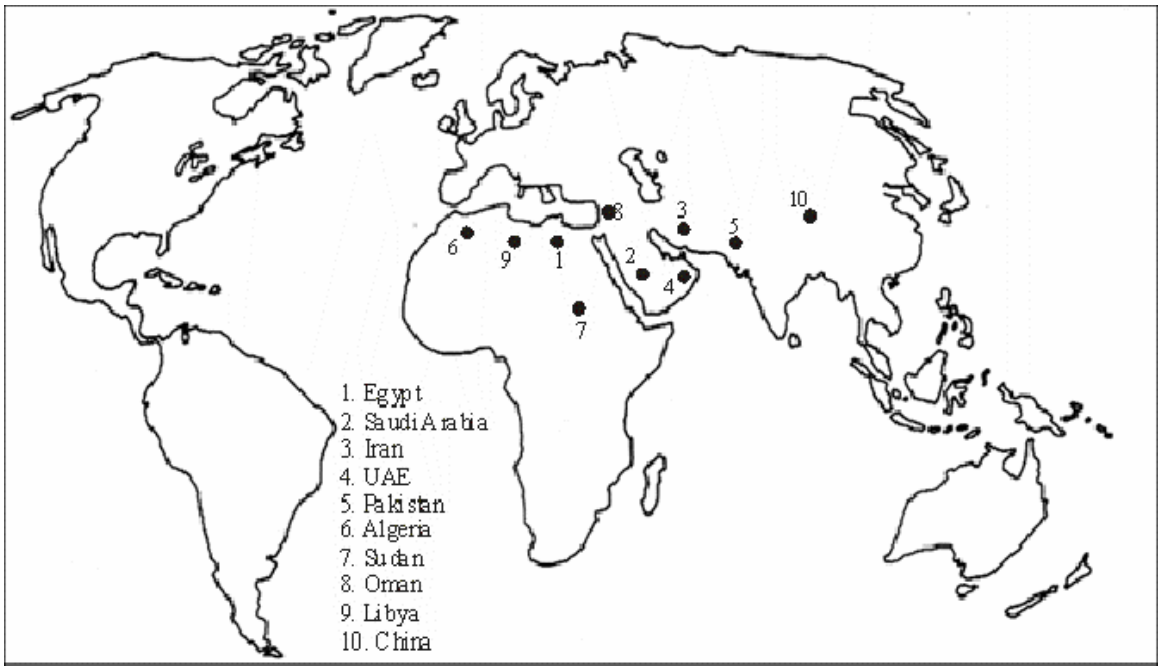


Figure 1: World map of top ten date producing countries

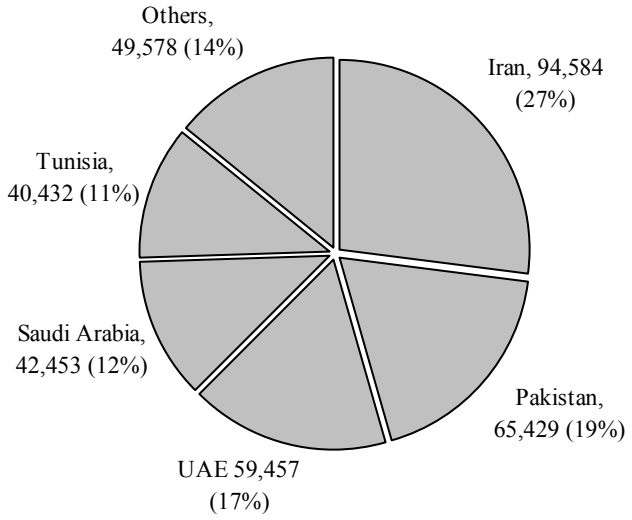
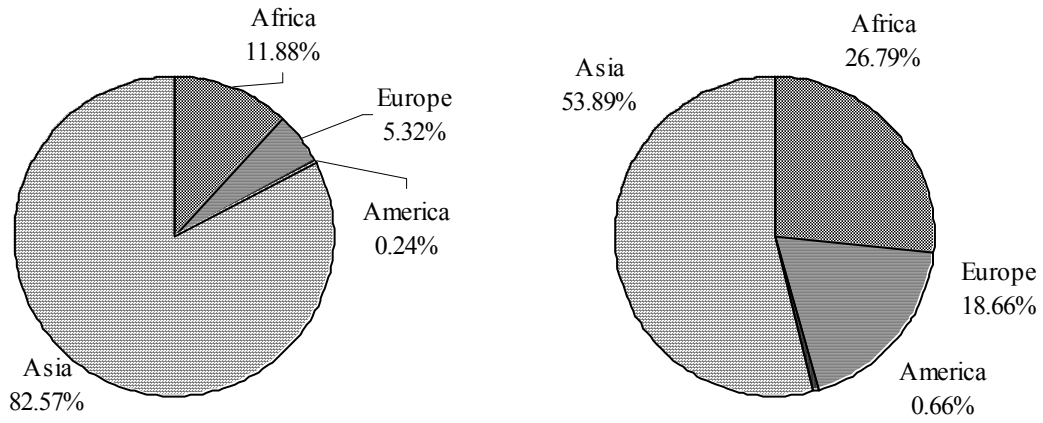


Figure 2: Volume (tonnes) and share (%) of top five countries in date export (2004)



A. Share by Volume *B. Share by Value*

Figure 3: Share of different regions in export (Percent share in volume and value)