

Trend And Growth Of Exports Of Medicinal Plants And Aloe Vera From India

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Abstract

Medicinal plants have been an essential share of Indian health and living systems. The present paper deals with the trend and growth of exports of medicinal plants and aloe vera from India.

The study has the following objectives

1. To study the quantity of export of medicinal plants and Aloe vera from India in 2004-05 to 2017-18.
2. To find out the quantum of export of medicinal plants to various countries from India over the period from 2009-10 to 2017-18.
3. To analyse export of Aloe vera to various countries from India and
2. To find out trend and growth of exports of medicinal plants and aloe vera from India

The study is based on secondary data. Secondary data is collected from various Government reports, research reports, journals, libraries, magazines, books, newspapers internet and various institutions. The tools used for the study were percentage analysis, mean, standard deviation, compound growth rate, trend analysis and coefficient of variation.

The study shows that Aloe vera is exported to West Germany, France, U.K., U.S.A., West and East Asian Countries, East and West European Countries and on an average the export of Aloe vera stands at 13006 tonnes during the period from 2009-10 to 2017-18. The share of other countries is less than 10 per cent.

Therefore, annual export of Aloe vera on an average is 13006 tonnes and West Germany, East Asia and U.S.A., are the primary importers of Aloe vera and pods from India. In the case of the value of exports of Aloe vera, the overall compound growth rate was 6.69 per cent per annum. Individually, except U.S.A. all other importing countries had a positive growth. Among these countries, United Kingdom was the major importer of Aloe vera with a share 42.68 per cent per annum followed by West Asian countries with a share of 31.71 per cent.

Keywords: medicinal plants, herbal medicine, agro-climatic conditions, compound growth rate, importing countries.

INTRODUCTION

Medicinal plants are mainstay of herbal centred ayurvedic usage. Medicinal plants safeguard the livings of millions of people, particularly in the Indian Himalayan region. It is remarkable that effective Intellectual Property Right protection has helped countries like China to establish supremacy in the world trade.

Forty-five percent of all patents on the herb or herbal based or related medicine is with China closely followed by Japan with a 28 percent share (Tannan, 2006). Medicinal Plants Conservation Areas (MPCA) has established in the southern States of Kerala, Tamil Nadu and Karnataka and Medicinal Plants Conservation Network (MPCN) for in-situ conservation (Gandhi, 2006).

Aloe vera is a well-known drug in the Unani system of medicine and has been comprised in Indian, British and many other pharmacopoeias of the World (Pharmacopoeia of India, 1966). The Aloe vera plant needs bright sunshine. Infrequent raining during the growth period is conducive for growth. Heavy rain and cloudy weather are not helpful for the crop (Gupta, 1971). It reported that over 90% of the medicinal plants occur in the forests of Tamil Nadu (Odessey, 1999). The present paper deals with the trend and growth of exports of medicinal plants and aloe vera from India.

OBJECTIVES OF THE STUDY

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METHODOLOGY

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REVIEW OF LITERATURE

Green Halgh (1979) has discussed the various forms in which herbs are traded, the specific aspects of major herbs, the uses of the herbs and the quality specifications. In the field of marketing, he has discussed the pattern of world trade for herbs, the pricing and

consumption characteristics of the major markets. He has concluded that growing herbs are of no encouragement to inexperienced growers who aim for quick returns from small investment.

Kapur and Atal (1989) have analysed the market potential for Aloe vera. The major import markets are found to be U.S.A., and U.K. and most of the produce is shipped from Tuticorin and Bombay. The estimated world demand for Aloe vera is 10,000 tonnes per annum and India exports 4,500 tonnes per annum on an average. Hence, the authors have stressed the need to increase cultivation of Aloe vera in India.

Kumar et al., (1993) in their works have discussed cultivation of medicinal plants in Nagercoil, Kanyakumari district. In this work, they have discussed the scope of extending the area under the medicinal plants in varied agro-climatic conditions. Further, they have discussed production potentialities, the scope for rural employment and foreign exchange earnings.

EXPORTS OF MEDICINAL PLANTS FROM INDIA

The exports from India amounts to \$ 221 million compared to Korea are which is \$ 24.1 million. In the exports of plants used in pharmacy, perfumery, etc. to the six OECD countries, India's share was \$ 19.8 million compared to South Korea's \$ 20.9 million (Sundaresh, 1979).

The other major suppliers of medicinal plants used in perfumery and pharmacy etc., to OECD countries are China (\$ 12.06 million), Yugoslavia (\$11.7 million), Kenya (\$10.4 million), Zaire (\$7.9 million), Argentina (\$5.2 million) and Afganistan (\$4.6 million). The share of India and Korea in the export of these items was about 10 per cent while that of China, Yugoslavia and Kenya was about 5 per cent (Sundaresh, 1979).

Table 1 gives the details of the quantity of export of medicinal plants and Aloe vera from India in 2004-05 to 2017-18.

TABLE 1
QUANTITY OF EXPORTS OF MEDICINAL PLANTS AND ALOE VERA FROM
INDIA

(in Tonnes)

Year	Medicinal plants	Aloe vera	Share of Aloe vera in exports medicinal plant export (percentage)
2004-05	7846	6922	88.22
2005-06	10422	8188	78.56

2006-07	11956	11412	95.45
2007-08	11484	11344	98.78
2008-09	13950	10416	74.67
2009-10	15094	10814	71.64
2010-11	14064	11262	80.08
2011-12	15824	11694	73.90
2012-13	18474	12742	68.97
2013-14	18658	14978	80.28
2014-15	19324	16696	86.40
2015-16	19042	17702	92.96
2016-17	16422	15470	94.20
2017-18	17858	16958	94.96

Source: Basic chemicals, pharmaceuticals and cosmetics Export Promotion Council, Bombay, 2017-18.

Table 1 reveals that exports of medicinal plants have increased from 7846 tonnes in 2004-05 to 17858 tonnes in 2017-18 showing a three-fold increase in the exports of medicinal plants from India. Considering the share of Aloe vera in the overall exports of medicinal plants, it could be observed that the share of Aloe vera in medicinal plants increased from 88.22 per cent in 2004-2005 increased to 98.78 per cent in 2007-08. Then it declined to 71.64 per cent in 2009-10. It has increased to 80.28 per cent in 2013-04 and 94.96 per cent in 2017-18 showing the predominance of Aloe vera in the export of medicinal plants from India.

The export of Aloe vera has shown an increase from 6922 tonnes in 2004-05 to 16958 tonnes in 2017-18. The overall trend shows that the trend in export of medicinal plants is inconsistent but the share of Aloe vera continues to be large in the export of medicinal plants varying from 68.97 per cent to 98.78 per cent. The earnings from the export of medicinal plants and Aloe vera leave in India shows a promising rise.

LEADING IMPORTERS OF MEDICINAL PLANTS FROM INDIA

In Asia, Sri Lanka, Hong Kong, Japan, Malaysia, Maldives and Singapore are the countries to which medicinal plants are exported from Thoothukudi. Moreover, West

Germany, France, U.K., U.S.A., West and Eastern Europe are the leading importers of medicinal plants from India (Ajjan et al., 1998).

Table 2 shows the quantum of export of medicinal plants to various countries from India over the period from 2009-10 to 2017-18.

TABLE 2
EXPORT OF MEDICINAL PLANTS TO VARIOUS COUNTRIES FROM INDIA
(Quantity in Tonnes)

Year	West Germany	France	United Kingdom	U.S.A.	West Asian Countries	East Asian Countries	West Europe	East Europe	Total
2009-10	6456	414	84	1540	176	4480	1140	804	15094
2010-11	5800	686	134	1760	440	3000	1540	704	14064
2011-12	6600	1440	96	1960	680	2464	1640	944	79122
2012-13	7400	1640	160	2680	964	2810	1820	980	18474
2013-14	7760	1838	240	3044	1400	1680	1676	1020	18658
2014-15	6580	2440	656	1460	1846	3242	1820	1280	19324
2015-16	6200	1602	828	1806	1974	3220	1802	1630	19062
2016-17	6854	1798	794	1608	2026	2422	1880	1462	18844
2017-18	7094	1416	1120	1596	1994	2640	1680	1784	19324
Average	6749.33	1478.89	456.89	1939.33	1277.78	2884.22	1666.44	1178.67	24662.89
Percentage	37.36	6.00	1.85	7.86	5.18	11.69	6.76	4.78	100.00
Compound Growth Rate	1.06	15.07	42.62	-1.49	32.91	-3.41	11.88	3.97	3.88

Source: Basic Chemicals, Pharmaceuticals Cosmetics Export Promotion Council, Bombay, 2017-18

The overall picture shows that West Germany and East Asian countries are the leading importers followed by U.S.A., West Europe, France, East Europe and U.K. The

average import of medicinal plants from India is 3374.67 tonnes in West Germany, 2884.22 tonnes in East Asian countries, 1939.33 tonnes in U.S.A and 1178.67 tonnes in East Europe.

The share of West Germany in imports from India is about 40 per cent followed by East Asian countries and U.S.A. The share of East Asia and U.S.A. is around 16.36 per cent and 11.00 per cent respectively. Hence, West Germany and East Asian countries provide a big market for Indian medicinal plants including Aloe vera and pods.

The overall compound growth of the quantity of Aloe vera exported was 3.88 per cent. Country-wise compound growth rate of United Kingdom (42.62 per cent), West Asian countries (32.91 per cent), France (15.07 per cent), west Europe (11.58 per cent), East Europe (3.97 per cent) and West Germany (1.06 per cent) all had a positive growth, while import of East Asian countries and U.S.A. had declined by 3.41 per cent and 1.06 per cent respectively.

EXPORT OF ALOE VERA TO VARIOUS COUNTRIES FROM INDIA

The export of Aloe vera to various countries from India is presented in Table 3.

TABLE 3

EXPORT OF ALOE VERA TO VARIOUS COUNTRIES FROM INDIA

Year	West German y	France	United Kingdo m	U.S.A.	West Asian Count ries	East Asian Countri es	West Europ e	East Euro pe	Total
2009-10	4080	280	64	1140	144	3192	1054	760	10814
2010-11	4340	640	110	1518	392	2460	1266	542	11262
2011-12	4840	1018	74	1360	576	1680	1420	726	11694
2012-13	4968	1260	126	1420	784	1822	1622	740	12742
2013-14	5838	1442	184	2338	1320	1424	1578	852	14978
2014-15	5928	1876	480	1770	1636	2922	1640	1044	16696
2015-16	6036	1454	600	1454	1740	3130	1680	1428	17702
2016-17	6466	1396	630	836	1420	2402	1234	1086	15470
2017-18	6620	1380	820	1196	1634	2614	1424	1200	16958
Average	5457.33	1194	343.11	1381.33	1071.78	2405.11	1435.33	938.67	13006
Percenta	41.96	9.18	2.64	10.62	8.24	18.49	11.04	7.22	100

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Compound Growth Rate	6.45	15.43	42.68	-2.73	31.71	1.42	2.63	10.22	6.69

Source: Basic Chemicals, Pharmaceuticals Cosmetic Export Promotion Council, Bombay, 2017-18

Table 3 shows that Aloe vera is exported to West Germany, France, U.K., U.S.A., West and East Asian Countries, East and West European Countries and on an average the export of Aloe vera stands at 13006 tonnes during the period from 2009-10 to 2017-18. Of this, this share of West Germany is 41.96 per cent, of East Asia it is 18.49 per cent, and that of west Europe it is 11.04 per cent. The share of other countries is less than 10 per cent.

Therefore, annual export of Aloe vera on an average is 13006 tonnes and West Germany, East Asia and U.S.A., are the primary importers of Aloe vera and pods from India.

In the case of the value of exports of Aloe vera, the overall compound growth rate was 6.69 per cent per annum. Individually, except U.S.A. all other importing countries had a positive growth. Among these countries, United Kingdom was the major importer of Aloe vera with a share 42.68 per cent per annum followed by West Asian countries with a share of 31.71 per cent.

TREND IN EXPORT OF MEDICINAL PLANTS AND ALOE VERA IN INDIA

In order to assess the trend in the export of medicinal plants and Aloe vera and pods in India using trend line. The result of the analysis showing trend and growth of the quantity of exports of medicinal plants and Aloe vera from India for the period from 2004-05 to 2017-18 is presented in Table 4.

TABLE 4

TREND AND GROWTH OF QUANTITY OF EXPORTS OF MEDICINAL PLANTS AND ALOE VERA FROM INDIA

Particulars	Trend Coefficients		R ²	CGR (percentage)
	a	b		
Medicinal Plants	8.62	0.084* (11.64)	0.79	5.94
Aloe vera	8.49	0.080* (13.55)	0.86	6.39

* Significant at 5 per cent level.

Note: CGR = Compound Growth Rate

Figures in parentheses indicate t-values.

Table 4 reveals that the export of medicinal plants and Aloe vera has been increasing at a compounded growth rate of 5.94 per cent and 6.39 per cent respectively. The trend coefficients are positive and significant at 5 per cent level indicating a positive trend in exporting medicinal plants and Aloe vera. The trend coefficient for medicinal plants is 0.084 and for Aloe vera is 0.080.

CONCLUSION

The overall trend in export of Aloe vera from India is positive and significant growing at a compounded growth rate of 6.27 per cent . The trend in export of medicinal plants is also found to be positive growing at a rate of 5.81 per cent.

Among the countries that import Aloe vera and pods the share of West Germany is about 40 per cent and that of East Asia and U.S.A. is 16.36 and 11.00 per cent respectively. The overall compound growth rate of the quantity of Aloe vera was 3.16 per cent. Except East Asian countries and U.S.A., all other Aloe vera-importing countries have shown a positive growth. The export of Aloe vera on an average stands at 14256.02 tonnes. The share of Aloe vera in the import of medicinal plants has also increased in west Germany, East Asia, U.S.A., and west European countries.

The value of exports, the overall compound growth rate was 6.69 per cent. Country-wise, all importing countries have shown a positive growth, except U.S.A. Conscious and continuous effort to produce drugs in finished form locally would no doubt; help earn more foreign exchange in India. Strict adherence to quality in both samples sent and the produce exported would win steady market for Aloe vera in Western countries. Lack of training among the labourers in the collection of the herbs leads to impurity in the medicinal plants and its regeneration capacity is lost.

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