

RESEARCH ARTICLE :

Trends in destination-wise export of gum guar from India

■ N. MANJUNATH, H. LOKESHA, G.B. LOKESH AND M.G. PATIL

ARTICLE CHRONICLE :

Received :
 22.07.2017;
Accepted :
 11.08.2017

SUMMARY : Agriculture being the backbone of Indian economy supports the country to be in international trade domain with a great position. This is observed by looking at the export of gum guar derivatives in international trade. This paper made an attempt to analyze the trends in destination-wise export of gum guar from India. The cumulative annual growth rate of export of gum guar in India is positive in terms of quantity as well as value with 18.62 and 48.60 per cent, respectively from 2005-06 to 2014-15. The increased export growth in gum guar is mainly attributed its increasing demand from oil exploration and shale gas production in the world. A favorable development for stakeholders in the guar industry in India is that global demand for guar products in general and guar gum in particular has expanded rapidly during the last few years.

How to cite this article : Manjunath, N., Lokesha, H., Lokesh, G.B. and Patil, M.G. (2017). Trends in destination-wise export of gum guar from India. *Agric. Update*, 12 (TECHSEAR-9) : 2394-2397.

KEY WORDS :

Gum guar,
 Destination-wise,
 Cumulative annual
 growth rate

BACKGROUND AND OBJECTIVES

Production and trade of agricultural commodities are crucial to the economic progress of developing countries. It is highly decisive, particularly for India, since agriculture continues to be the predominant livelihood source for a large share of its population (Bhattacharya, 2011).

Gum guar (*Cyamopsistetragonoloba* (L.) Taub) (Singh, 2004) (Singh *et al.*, 2002) in now a days is an important industrial crop both in India and Pakistan. It is significant foreign exchange earner; because gum guar, its derivatives and the high protein meal produced from the seeds, are sold world over

to an expanding market (Anonymous, 2003).

India is the largest producer of gum guar in the world, constitute about 80 per cent of the total production. Total production of gum guar in India have crossed 2.4 million metric tons during the agricultural year 2014-15 due to good weather conditions in the major gum guar producing areas in India. With a moderate production of 0.25 million metric tons in Pakistan which is another important Gum guar producing area, the total global production of Gum guar is estimated to have crossed 3 million metric tons during 2013-14. Presently, India accounts for more than three-fourth of the total world Gum guar production. The other major producers of Gum guar are Pakistan,

Author for correspondence :

N. MANJUNATH
 Department of
 Agricultural Economics,
 College of Agriculture,
 (U.A.S.), RAICHUR
 (KARNATAKA) INDIA
 Email: manjunatha.agecon
 @gmail.com

See end of the article for
 authors' affiliations

USA, South Africa, Malawi, Zaire and Sudan.

India is the world leader in the exports of gum guar and its by-products followed by Pakistan (Singh, 2014). About 25,000 tones of the total production of the country constitutes to the local market. The major importing countries of Indian gum guar and its derivatives are China, U.S.A, Canada, Lithuania, Italy, Russia and Germany, etc. (Anonymous, 2015 a&b, 2015)

RESOURCES AND METHODS

The time series secondary data on destination-wise quantity and value of export of gum guar were collected from various sources such as; Agricultural processed food products export developmental authority of India and India stat.com.

Growth model :

The compound growth rate of export of gum guar from India were analyzed using the exponential growth function to the series data in the form

$$Y = a b^t e$$

where,

Y= Dependent variable for which growth rate is estimated

a = Intercept/constant term

b = (1+r), Regression co-efficient

r = (b-1)*100, compound growth rate in percentage

t = Time variable

e = Error term

The compound growth rate was obtained from the logarithmic form of the equation as below:

$$\ln Y = \ln a + t \ln b$$

OBSERVATIONS AND ANALYSIS

The results and discussion part deals with the export scenario of gum guar export from India.

Destination wise growth rates in export of Gum guar from India during 2005-06 to 2014-15 :

The major importing countries of Indian Gum guar were China, U.S.A, Lithuania, Germany, Italy, Canada, Russia and others have been presented in Table 1. and Fig.1.

Lithuania is the major emerging importing country of gum guar from India, recorded a significant and positive growth rate of 173 and 171 per cent in terms of

Table 1 : Destination-wise growth rates in export of Guar from India during 2005-06 to 2014-15 (Quantity in MT, Value in lack rupees)

Country Year	China		U.S.A.		Canada		Lithuania		Italy		Russia		Germany		Others		Total	
	Qty	Value	Qty	Value	Qty	Value	Qty	Value	Qty	Value	Qty	Value	Qty	Value	Qty	Value	Qty	Value
2005-06	27133	12723	75187	46577	3745	2086	0	0	4587	2396	3342	1727	17779	12147	5494.5	27268	186718	104923
2006-07	31541	14646	66929	44103	2227	1551	0	0	5840	3396	3185	2021	18740	12628	6084.2	34234	189304	112579
2007-08	34299	15809	81775	48415	1976	1208	9	9	4897	2656	3805	1983	17900	9729	66499	32765	211167	112575
2008-09	39226	17705	97149	62305	1791	1195	20	6	5905	2724	6693	4176	22509	12274	85274	33514	258568	133899
2009-10	25261	12200	71923	46845	1209	861	20	13	6755	2784	6101	3915	20599	10415	86611	36297	218480	113331
2010-11	56364	21659	215260	177656	4628	3703	137	138	15614	7322	14435	12145	30544	17855	104625	53372	441608	293870
2011-12	58031	96994	434254	1244603	8088	22889	100	271	22328	22837	11047	30734	35098	63623	138380	168436	707326	1652387
2012-13	32268	136833	242503	1728166	5467	35045	65	237	12651	17956	5389	29212	12085	37549	95783	142703	406312	2128701
2013-14	56668	96789	332247	852872	8736	22132	3438	973	2297	16452	10971	30067	16957	33222	151331	120944	601945	1173453
2014-15	38575	51264	384776	701296	16752	30794	23154	7140	18695	11051	15925	26498	19117	27723	148183	92228	665178	947994
CAGR(%a)	4.72	31.89	28.03	63.76	32.00	67.00	173.00	171.92	21.70	30.70	17.69	50.18	-1.31	20.00	111.86	22.78	18.62	48.60

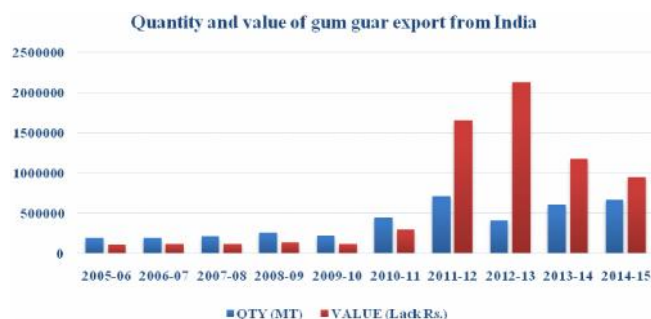


Fig. 1 : Quantity and value of export of gum guar from India during 2005-06 to 2014-15 (Quantity in MT, Value in lack rupees)

quantity and value of export, respectively. Canada is the next country to Lithuania indicating 32 per cent and 67 per cent in terms of quantity and value of export, respectively. Export of Gum guar to U.S.A. recorded a significant and positive growth rate of 28 per cent and 63 per cent in terms of quantity and value of export, respectively. Russia recorded growth rate of 17 per cent growth rate of quantity and 50 per cent in terms and value of export. China recorded a significant and positive growth rate of 4 per cent in terms of quantity and 31 per cent and value of export. Export of Gum guar to Italy recorded a significant and positive growth rate of 21 per cent and 30 per cent in terms of quantity and value of export, respectively.

Export to Germany was found to be significant and negative (-1.31%) in terms of quantity but it was positive and significant in terms of value of export (19.13%). In the year 2014-15 it is the fourth largest importer of Indian Gum guar *i.e.*, 23154 MT in terms of quantity and in 2007-08 it started importing of 16 MT. Export of Gum guar to other countries recorded a significant and positive growth rate of 11 per cent and 22 per cent in terms of quantity and value of export, respectively. It is evident from the Table 1 and Fig. 3, the total export of Gum guar to all the countries from India was also recorded a significant and positive growth rate of 18 per cent and 48 per cent in terms of quantity and value of exports, respectively.

Demand for gum guar has risen considerably due to the strong demand from the oil exploration industry especially in the countries like Lithuania, Canada, U.S.A., Germany, Italy, Russia and China (Sharma, *et al.*, 2012), (Anonymous a&b, 2015). The recent use of gum guar in shale gas production resulted in a surge in gum guar demand consumption and caught the attention of other

industry players *i.e.*, food and bakery products, confections, beverages, cosmetic industries, pharmaceutical industries, paper industry, metallurgical and mining, *etc.* (Sharma, 2010), (Henry and Kumar, 2005).

The major industrialized countries, the US and the EU, have made the product duty free for imports, but the emerging economies generally impose duties on the guar product. The tariff structure in China is of particular interest to India as that country is the second most important market for India after the US. There is substantial tariff escalation in China, which currently imposes a 15 per cent duty on guar gum powder, and 7 per cent on guar splits.

Conclusion :

It may be concluded from the study that there is an immense scope for export of gum guar from India. Though India is the largest producer of gum guar in the world, it exports less than 60 per cent of its total production. India has a good potential for export of gum guar and it needs to strive hard to improve its export by improving upon the quantity of gum guar exports and also by improving the quality levels. There is a huge demand of Indian guar gum in the international market, showing the great scope in the future. A favorable development for stakeholders in the guar industry in India is that global demand for guar products in general and guar gum in particular has expanded rapidly during the last few years. This has been due mainly to the sharp increase in the use of guar gum in the shale gas and oil industry in the US. The food industry was earlier the major user industry for guar products but shale gas and oil industry has overtaken it and become the dominant user of guar gum in recent years. The US is the largest importer and India is the largest exporter of guar products in the world.

Authors' affiliations :

H. LOKESHA AND G.B. LOKESH, Department of Agricultural Economics, College of Agriculture, University of Agricultural Sciences, RAICHUR (KARNATAKA) INDIA

M.G. PATIL, Department of Horticulture, University of Agricultural Sciences, RAICHUR (KARNATAKA) INDIA

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