

# “The Future of Indian Mint”—A Study to Forecast the Mint Exports from India

**Prashant S Nair, Hareesh N Ramanathan**

*Aptara Learning (P) Ltd., Kazhakuttom, Thiruvananthapuram. Kerala*

*Dept of Management Studies, Toc H Institute of Science and Technology, Arrakunnam.Kochi.Kerala*

## ABSTRACT

India has been the largest producer, consumer and exporter of mint in the world over the last two decades. Mint production and exporting is around a thousand crore business in the country. The objective of this paper is to find out the future of Indian mint exports by forecasting the mint exports from India in the forthcoming years. The study is done on a longitudinal basis and executed as a desk research. This paper is forecasting the mint exports from India up to the year 2014.

**Keywords:** Mint, Menthol, Exports.

## 1. INTRODUCTION

Menthol is an organic compound made synthetically or obtained from peppermint or other mint oils. For decades, menthol has been used safely in a wide array of consumer products including food, drink, over-the-counter health products and cosmetics. Mint is an area where India is leading in the world in terms of production and exports. India, though being a world leader in mint business, the industry is not organized and neither the government has taken any actions to maintain and improve the situation. Even though the industry is worth a thousand crore in the country, the suppliers are all small-time business houses. There are hardly any multinational in India that is into production and exporting of menthol. A union of government, business houses, suppliers, distributors and farmers has to take place in order to plan and make the industry more organized, as well as form a body of officials who can formulate policies that would secure the farmers and bring about a change in the industry making it more transparent.

## 2. HISTORY OF MENTHOL

Menthol has been known in Japan for more than 2000 years, but in the West it was isolated until 1771, by Hieronymus David Gaubius. Mint originated in Europe and the Mediterranean and its many varieties are now

cultivated all over the world. Long been regarded as a symbol of hospitality, the Romans would strew it around at feasts and banquets as a welcoming sign to guests. The Romans flavored wines and sauces with mint. India is leading in the world in terms of production and exports. This feather in the crown has come all the way from Japan to Brazil to China and now India. Since the last couple of decades, the country has had a flourishing growth in this business and has seen consistent rise. Now, it is important that the feather in the crown remains there and does not get blown to any other country.

## 3. STATEMENT OF THE PROBLEM

India has been the largest producer, consumer and exporter of mint in the world over the last two decades. Mint production and exporting is around a thousand crore business in the country. The exports records have shown a steady growth in the market, but in the recent past, especially after the year 2007, there has been a decline in the exporting and consumption figures. More than that, natural menthol is seen to become a passing phase as synthetic menthol is getting replaced due to the high price fluctuations in the commodities market. A variation of more than 150% on the higher side is seen in its price. Companies producing synthetic menthol are coming up across the world like Symrise and BASF in Germany, Taksago in Japan etc. It is required to know the

future of Indian mint in terms of production, exports and consumption due to the variations seen over the years.

#### 4. OBJECTIVES

Following are the objectives of the study

- ◆ To forecast the export of Indian Natural Mint up to 2014.
- ◆ To identify the major menthol importing countries.
- ◆ To identify the major mint exporters in India.

#### 5. METHODOLOGY

The research is done on a longitudinal basis hence it also comprises of longitudinal research design. The basic primary data collected was after conducting unstructured personal interviews with the experts from the industry and Spices Board of India. The required secondary data was procured from the body that governs the export and import business in the country. Other than this, a lot of external research agency reports were referred. The entire equation modeling was purely based on regression and was presented with the help of pivot Tables and figures. The limitation faced during data compilation was limited clarity in the knowledge of the people of the industry as well lack of recorded data as there is no official regulatory body for menthol in the country.

As explained in Table 1, a total of 23000 tons of mint and mint products have been exported in last 9 months from June 2010 to Feb 2011 (the shown countries imported the highest amount of menthol from India). Figure 1 displays the 10 major countries who were prime importers of mint. China, leads with 8507 tons of menthol imports. The trend has always been that China imports almost 75% of menthol and leads the tally with a huge difference when compared to the other countries. Here, we can see that Russia, USA and Singapore are behind China with a huge gap importing 2779 tons, 2572 tons and 1825 tons respectively.

**Table 1** Major Mint Importing Countries

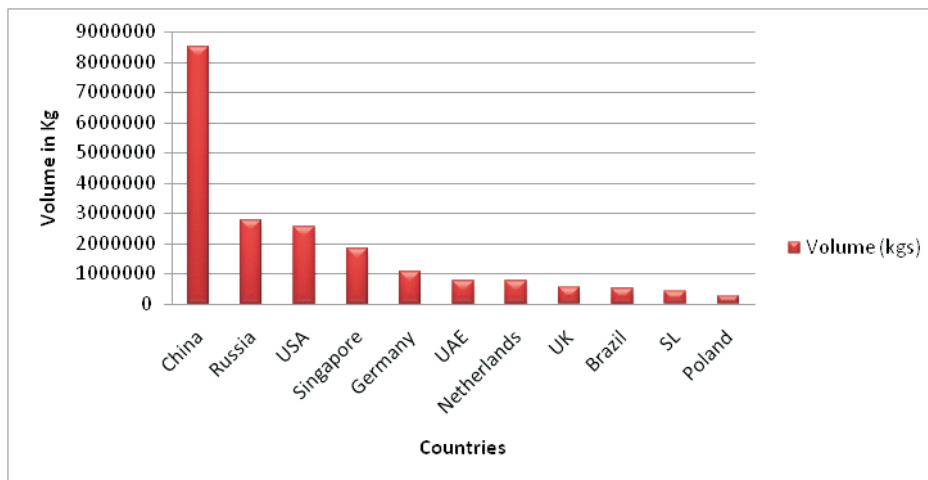
Country	Volume (kg)
China	8507230
Russia	2779646
USA	2572071
Singapore	1825433
Germany	1055380
UAE	765832
Netherlands	764550
UK	534270
Brazil	532760
Sri Lanka	428354
Poland	259500

Source: Secondary Data

#### 6. ANALYSIS AND DISCUSSION

##### 6.1 Major Mint Importing Countries

**Figure 1** Major Mint Importing Countries



Source: Secondary Data

## 6.2 Major Customers of Mint

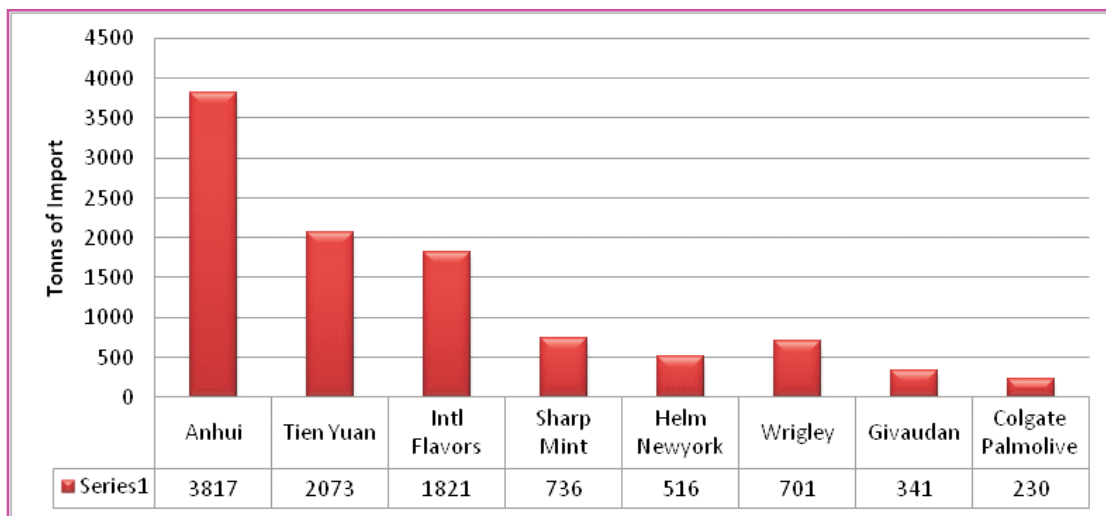
**Table 2** Major Customers of Mint

Customer	Import Quantity( tons)
Anhui	3817
Tien Yuan	2073
Intl Flavors	1821
Sharp Mint	736
Helm Newyork	516
Wrigley	701
Givaudan	341
Colgate Palmolive	230

Source: secondary data

Table 2 shows eight major mints importing companies across the world. Anhui, a Chinese firm is seen to be the highest importer who out of the 8500 tons imported by whole of China, has imported 3817 tons. Other names include Givaudan from Brazil who has imported 511 tons, International flavors, Wrigley importing 454 tons, Colgate Palmolive with 701 tons and Sharp mint etc. These range of companies helps understand the applications of mint across various industries.

**Figure 2** Major Importing Companies



Source: Secondary Data

Each of them represents a different industry wherein the use of mint to produce their product is applicable. Figure 2 shows the pictorial representation of the amount of imports made by each of these companies.

## 6.3. Major Suppliers of Mint

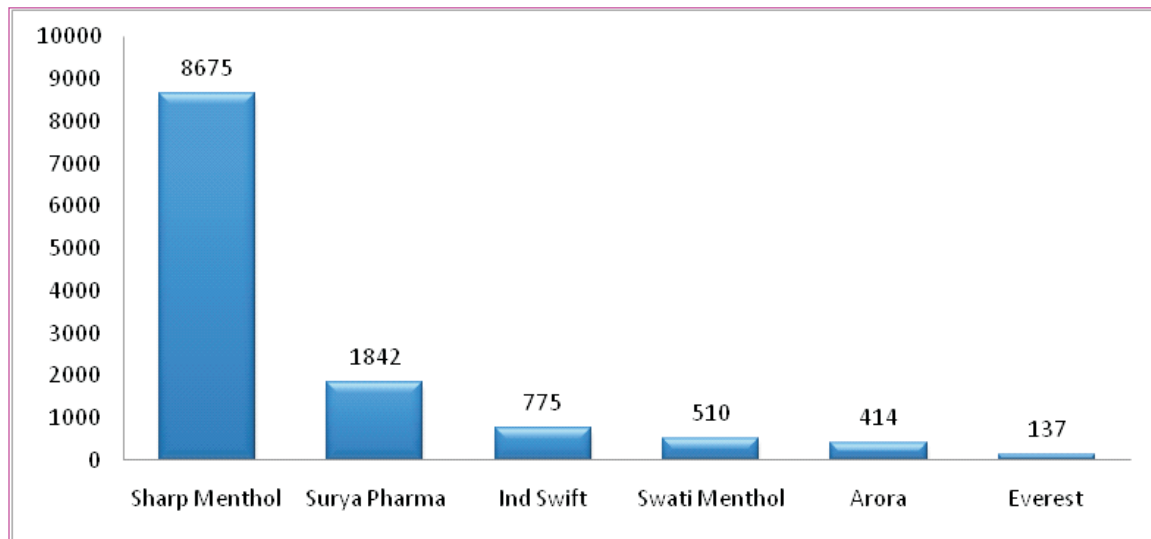
**Table 3** Major Suppliers of Mint

Supplier	Quantity (tons)
Sharp Menthol	8675
Surya Pharma	1842
Ind Swift	775
Swati Menthol	510

**Table 3** Contd.

Supplier	Quantity (tons)
Arora	414
Everest	137

Source: Secondary Data

**Figure 3** Major Suppliers of Mint

Source: Secondary Data

Given in the Figure 3 are major suppliers of menthol from India that cover about 80% of mint exports. Sharp menthol leads the list with a huge margin by exporting almost 70% i.e. 8675 tons. Other major suppliers include Surya Pharmaceuticals supplying 1842 tons, Ind Swift 775 tons, Swati and Everest with 510 and 137 tons respectively.

#### 6.4. The future of Menthol Exports

**Table 4** Menthol Exports from 2000-10

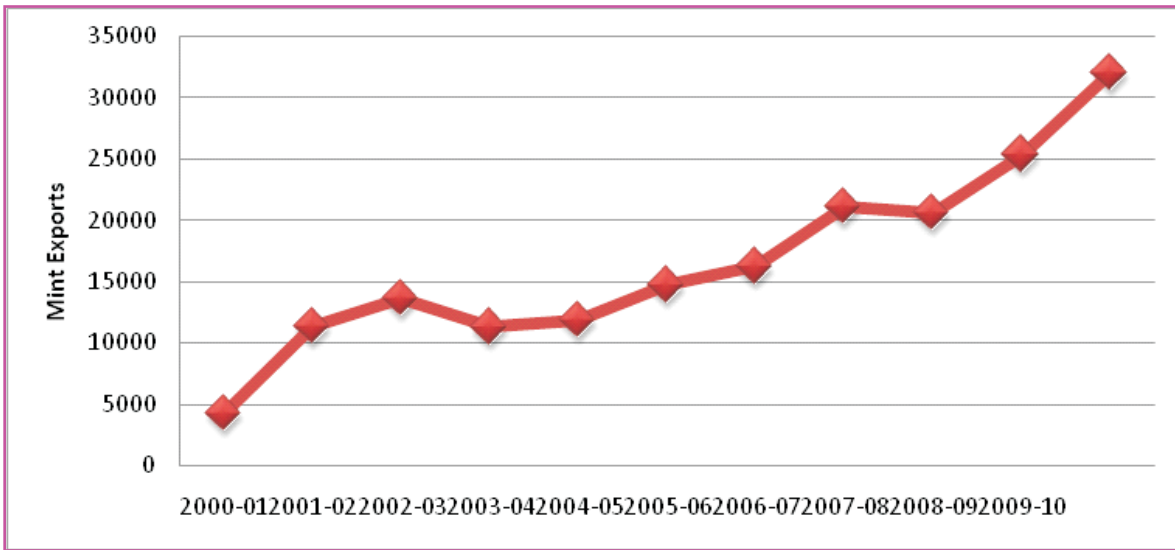
Year	Quantity (tons)
2000-01	4185
2001-02	11295
2002-03	13589
2003-04	11250
2004-05	11830
2005-06	14680
2006-07	16200
2007-08	21100
2008-09	20600
2009-10	25320
Average Exports	15004.90
Std. Deviation	6086.48
Range	21135.00
Minimum	4185.00
Maximum	25320.00

Source: Data analysis

As per Table 4, the amount of menthol exports of last 10 years from India is shown. The export performance has been consistent over the last decade except in 2003-04 and 2004-05 when the export figures show a downward trend i.e. 11,250 tons and 11,830 tons respectively, when compared to the previous year figure of 13,589 tons, as well as in 2008-09 where the consistent growth did not reach the expected levels. Over the years starting from 2000-01 to 2009-10, the average mint export from India was reported to be 15004.90 tons with a standard deviation of 6086.48. The lowest export was in the year 2000-01 and the highest was reported in the year 2009-10.

In order to forecast the quantity of Indian mint exports for the next four years, a regression analysis was attempted. For selecting the regression equation which could act as best fit and explain maximum percentage of variation, a curve fit analysis was attempted and the result is explained in Table 5. It can be seen from the curve fit diagram (Figure 5) that the cubic regression line could explain the maximum percentage of variation. From Table 5. It can be interpreted that cubic regression could explain 97.1% of the variation in the data ( $R^2 = 0.917$ ) and the regression was found to be significant. ( $P < 0.5$ ).

**Figure 4** Menthol Exports 2000-2010



Source: Data analysis

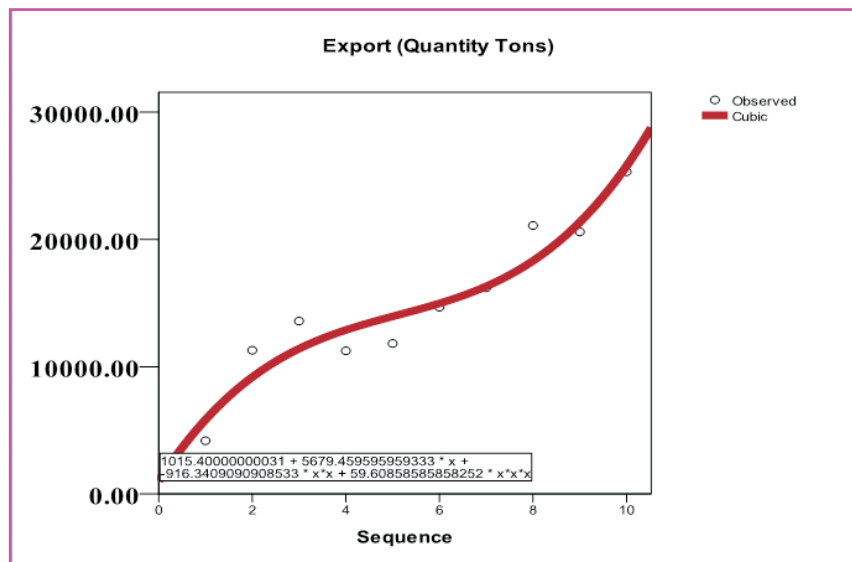
**Table 5** Model Summary and Parameter Estimates

Dependent Variable: Exports									
Equation	Model Summary					Parameter Estimates			
	R Square	F	df1	df2	Sig.	Constant	b1	b2	b3
Cubic	.917	22.074	3	6	.001	1015.400	5679.460	-916.34	59.609

Source: Data Analysis

From Table 5, we can estimate the equation. The equation for the regression analysis is:  $Y = b_0 + (b_1 * t) + (b_2 * t^2) + (b_3 * t^3)$ . The equation is displayed in Figure 5. The forecasting is done based on the formula.

**Figure 5** Curve Fit Diagram – Cubic Regression

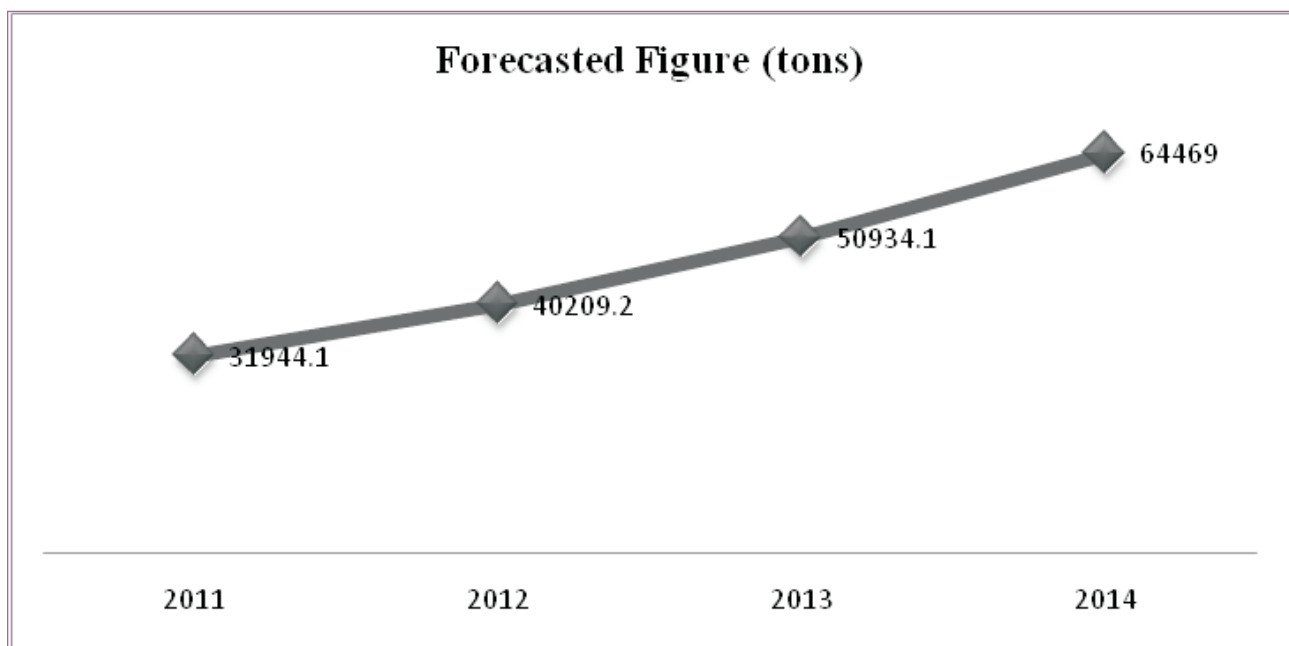


Source: Data Analysis

**Table 6** Estimated Export Figures from 2011-2014

Year	Forecasted Figure (tons)
2011	31944.1
2012	40209.2
2013	50934.1
2014	64469

Source: Data Analysis

**Figure 6** Estimated Export Figures from 2011-2014

Source: Data Analysis

From Table 6, it can be noted that, the mint exports will reach 64469 tons by 2014. A steady growth is forecasted from 2011 to 2014. By then the mint exports from India may enter into a new growing field in the area of International trade from India.

## 7. SUMMARY

To summarize the findings, the total export figure for year 2010-11 comes to 31944 tons, almost 32000 tons. The forecast for the years 2012, 2013 and 2014 is 40209 tons, 50934 tons and 64469 tons respectively. The export performance has been consistent over the last decade except in 2003-04 and 2004-05 when the export figures show a downward trend i.e. 11,250 tons and 11,830 tons

respectively, when compared to the previous year figure of 13,589 tons, as well as in 2008-09 where the consistent growth did not reach the expected levels.

Anhui, a Chinese firm, Givaudan from Brazil, International flavors, Wrigley, Colgate Palmolive, Sharp mint are major mint importing companies. Sharp menthol, Surya Pharmaceuticals, Ind Swift, Swati, Arora, Everest are the major menthol suppliers of the country. The acreage under the crop, weather conditions determine production. Economic scenario and demand in the international market determine the fluctuations in price.

## 8. CONCLUSION

Being a 1000 crore industry and world leader in production, consumption and export, India owns an unknown feather

in its crown whose importance has to be identified and necessary policies have to be formulated so as to carried forward systemized governance in the area. Cultivation around this year is said to be bumper which correlates with the export estimations and displays an upward trend when compared to the past. Hence, the future of Indian natural mint looks bright as the figures show an increase in volume of exports in the coming years.

## REFERENCES

- Details extracted from the website of the Spices Board of India ([http://www.indianspices.com/html/itc\\_hs.html](http://www.indianspices.com/html/itc_hs.html)). The Spices Board of India identifies the menthol by harmonized code 29061100.
- Department of Commerce and Industry, Government of India website provides details on menthol trade (<http://commerce.nic.in/eidb/default.asp>)
- Journal of Spices Statistics, (1992 - March 2004) – Spices Board of India*, pp. 98-100.
- Details extracted from Karvy report on menthol. [http://www.karvycomtrade.com/downloads/karvySpecialReports/karvysSpecialReports\\_20110411144910.pdf](http://www.karvycomtrade.com/downloads/karvySpecialReports/karvysSpecialReports_20110411144910.pdf)
- Details about mint extracted from CIMAP Report. [http://www.cimap.res.in/cimapdev/index.php?option=com\\_content&view=article&id=147&Itemid=367](http://www.cimap.res.in/cimapdev/index.php?option=com_content&view=article&id=147&Itemid=367)
- Details obtained from the report of National Multi-Commodity Exchange of India Limited (<http://www.nmce.com/files/study/menthol.pdf>)









