

15 March 2010



Mentha Oil Seasonal Report

Review

Mentha oil prices on spot and futures market were on bearish trend till August 2009. Spot prices had fallen by 19% since the beginning of 2009 to Rs.506.90 per kg. The major reason for the decline in price was lack of demand amid supply pressure in the spot market. Export demand in 2009 was also hand-to-mouth, hence, added further bearish sentiment to the market. According to Spices Board of India, during April-December 2009-10 India exported 14,225 tonnes of mint products valued at Rs.90,360 lakhs, which was lower by 18% in quantity terms and 24% in value terms, as compared to the exports for same period last year.

From August 2009 onwards, prices started moving upwards and gained by 30% to Rs.658.80 per kg as on 8th February 2010 supported by rejuvenating demand and easing arrival pressure. Gains in export demand further assisted the rise in prices. Winter season is considered to be the demand season for mentha oil as the industrial demand emerges during this period. But, during 2009, the pace of winter season demand for Mentha oil was very slow and hence reflected as the gradual rise in prices.

During January 2010, mint products exports from the country have been 1,350 tonnes valued Rs.8707.50 lakhs, which is 2% lower in quantity terms and 8% down in Value terms as compared to the exports for corresponding period last year.

Chart 1: Mentha oil MCX futures and Spot price trend



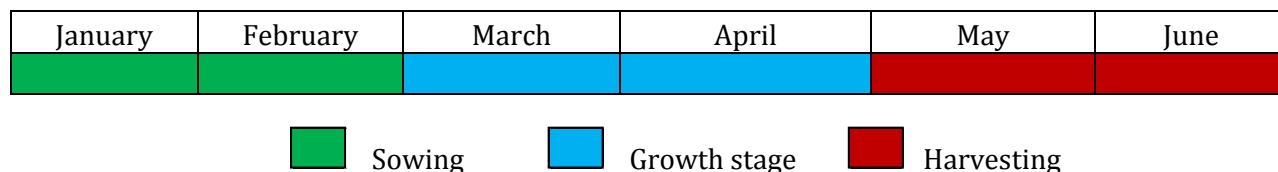
Introduction

Mentha is scientifically known as *mentha arvensis* and commonly known as **Japanese mint** or **pudina**. It is an aromatic herb plant and its leaves have pleasant odour. Mentha oil is the major derivative of mentha leaves, obtained by steam distillation process. Presently, India is the largest producer of mentha oil in the world contributing about 80% of total production. Rest 20% of global production, comes from China (9%), Brazil (7%) and US (4%). As far as productivity is concerned, on an average 20-25 tonnes of green herb per hectare can be obtained in three cuttings, which yields to 125-200 kg of oil/ha. India cultivates about eight species of mentha. Export varieties include the Japanese mint oil (derived from *Mentha arvensis*), Peppermint oil (derived from *Mentha pipertia*), de-mentholized Japanese mint oil, Spearmint (*Mentha spicata*), water mint oil (*Mentha aquatica*), Horse mint oil (*Mentha sylvestris*), Bergemont mint (*Mentha citrata*), etc

Seasonality

Generally, mentha cuttings are sown in the month of January and harvested during May-June. The end product-mentha oil-is abstracted from the leaves by processing and steam distillation. The arrival of the oil to the physical market starts from July and extends till November. Two to three cuttings can be done for one crop. About 350-400 drums (1 drum = 180 kg) arrive into market during June-November, and the arrivals decline in the off season.

Chart 2: Crop Calendar for Mentha Oil



Processing

Mentha oil is derived by steam distillation and filtration of dried mentha leaves. Golden yellow volatile oil is obtained upon steam distillation and filtration. Maximum oil can be extracted from leaves and flowering tips when the crop is in flowering stage. The natural oil yields on an average 70% menthol and 30% dementholised oil (DMO), which can be used both in confectionery and medicine in place of imported peppermint oil. Mentha oil is the basic raw material for production of menthol. About 50% of menthol can be separated out in crystalline form upon cooling the oil. The

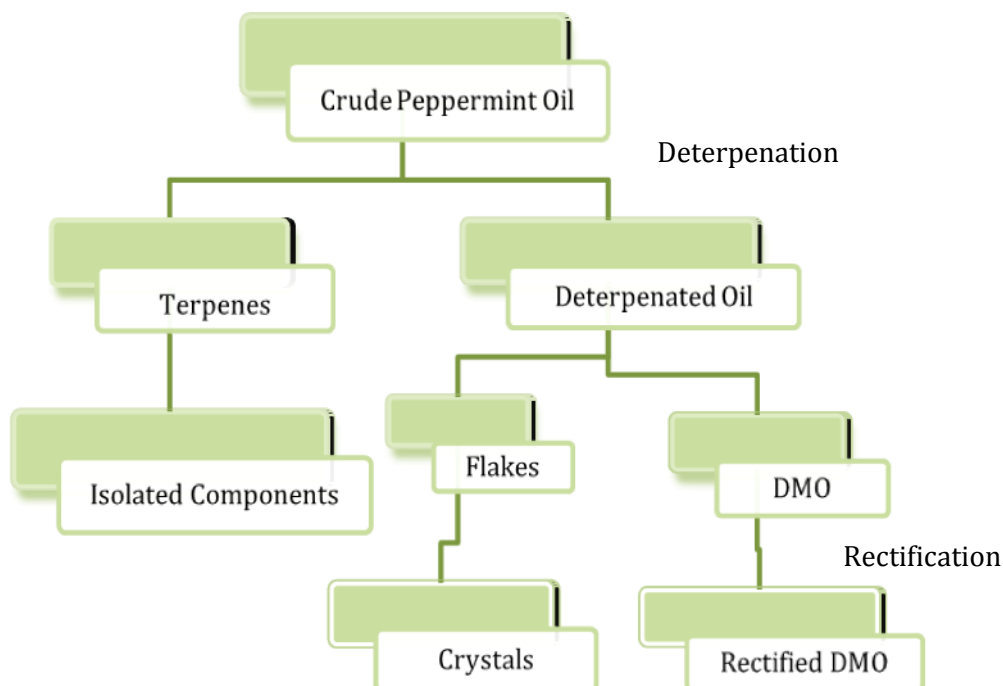
remaining 30% dementholised oil (DMO) is used as peppermint oil and the rest 20% for other products. In India, there are two type of menthol –crystals & flakes.

Out of total Mentha oil produced, 75% was contributed from *Mentha arvensis* (mainly to produce menthol), 18% was peppermint and 7% was spearmint. Out of total *M. arvensis* oil produced: India contributes 80%, China 9% and others 7%. About 39% of total Mentha production is consumed by India, followed by China, Europe and USA.

Distillation of Mentha Oil is done by following methods

1. Hydro Distillation
2. Field Distillation
3. Steam Distillation

Chart 3: Process flow chart for Mentha distillation



Usage

Mentha oil and its constituents are commercially used in food, pharmaceutical and cosmetics industries. Menthol is used as raw material in toothpaste, toothpowder, chewing tobacco, confectionary, mouth fresheners, analgesic balms, cough drops, as perfumes, chewing gums,

candies and tobacco industry. Pharmaceuticals and tobacco industry consume more than 50% of the total mentha oil followed by oral hygiene and confectionary industry.

Table 1: Worldwide consumption of menthol, by industry, (based on 2007 data)

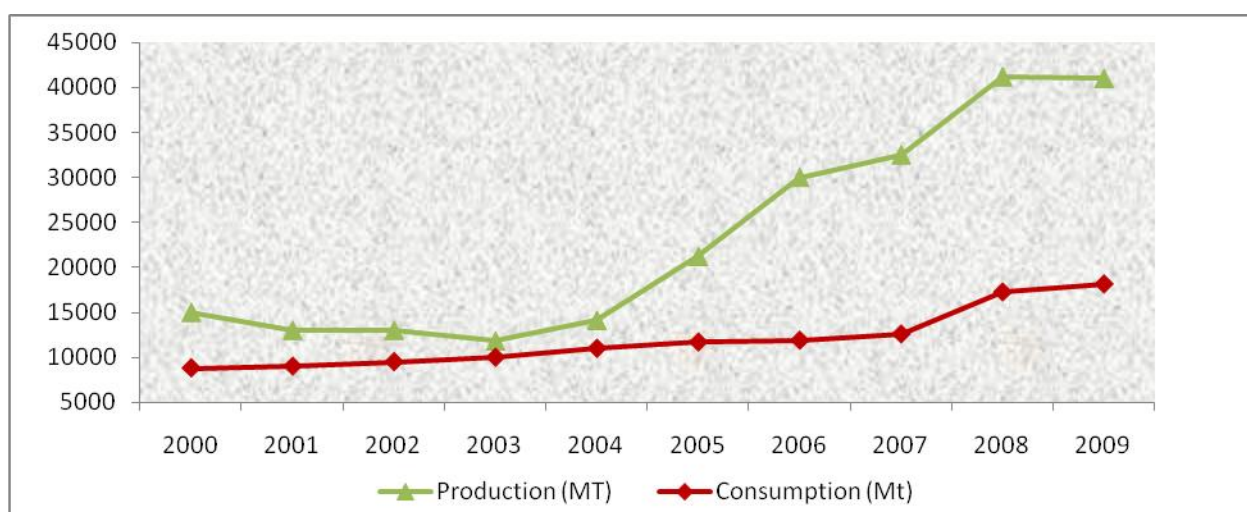
Oral hygiene	28.0%
Pharmaceuticals	26.6%
Tobacco	25.3%
Confectionaries	11.0%
Shaving products	7.0%
Miscellaneous	2.1%

Source: <http://www.leffingwell.com>

Global scenario

Global output has crossed 30,000 tonnes during 2007 and now hovering around 41,000 tonnes. On the global front, India maintains the top position in terms of production, consumption and exports. The other major producers in the world are China, Brazil, US and Japan. It meets the global demand by exporting nearly 20,000-21,000 tonnes per annum in different forms. The major exports are to countries like China, U.S.A., Singapore, Germany, Japan, Netherlands, U.K., Paraguay, Hongkong, Brazil, France etc.

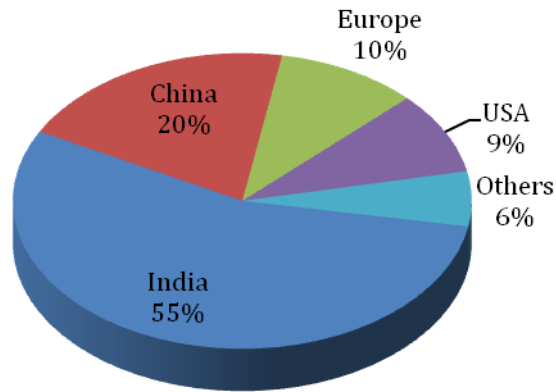
Chart 4: Global production and consumption of menthol



Source: trade sources

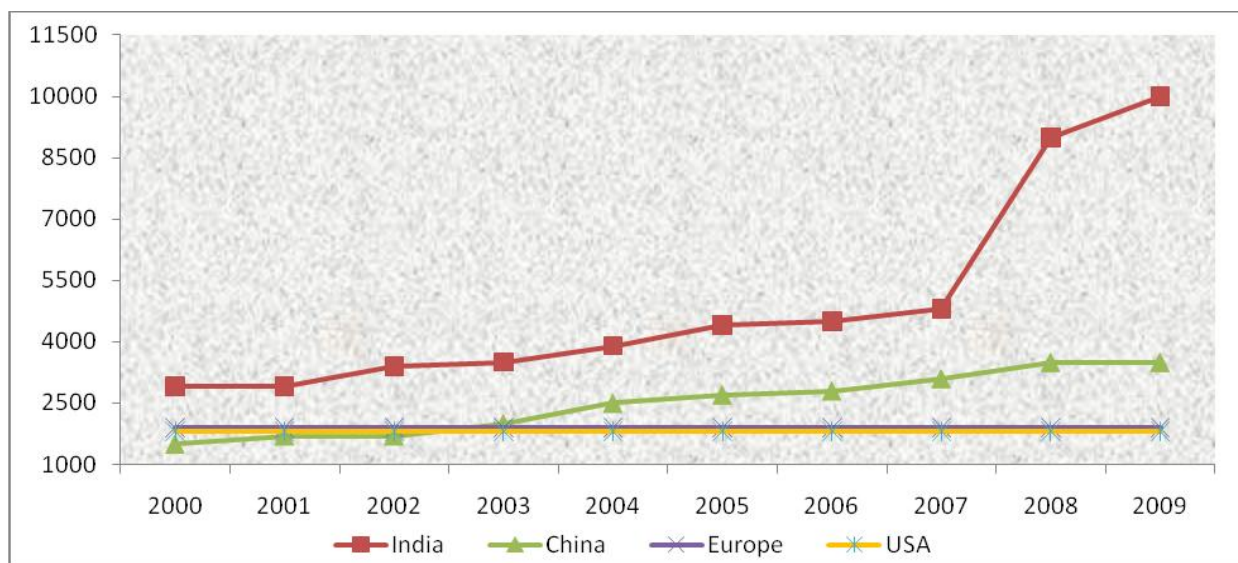
Mentha oil production has increased substantially in last couple of years with more contribution from India. However, consumption has shown steady growth over a period of time. The domestic Mentha oil prices fell sharply in 2007 and 2008 due to this huge gap in supply and demand.

Chart 5: Share of different countries in menthol consumption



Consumption of natural menthol has increased significantly in India over a period of time. However, in other major consumers like Europe and USA consumption has almost been stagnant. Strong industrial growth in India over two decades and increasing consumption of tobacco products has pushed up the domestic consumption of menthol. Menthol consumption in India has been estimated as 10,000 tonnes, China 3500 tonnes, Europe 1900 tonnes, USA 1800 tonnes, thus making a global consumption figure of 18,200 tonnes.

Chart 6: Menthol consumption in India, China, Europe and USA since 2000



Source: trade sources

Domestic scenario

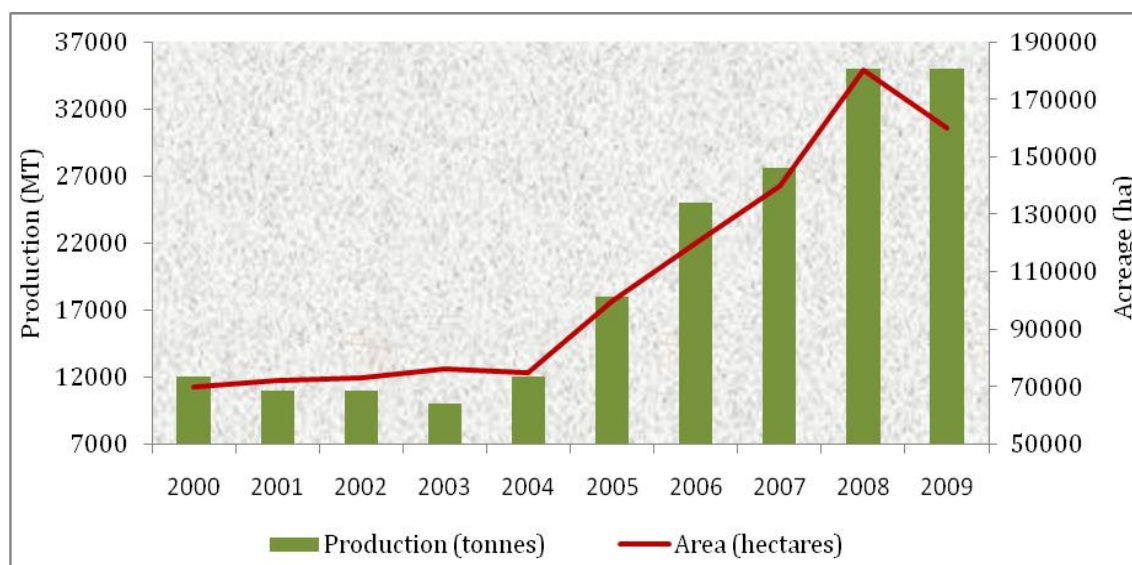
India is the world's largest producer, consumer & exporter of mentha oil. It exports nearly 60-62% of its stock to various countries. Uttar Pradesh is the largest producing state in the country contributing 80-90% to total production, followed by Punjab, Haryana, Bihar and Himachal Pradesh. The districts where mint is a predominant crop of winter-rabi season are Moradabad, Badaun, Rampur, Nainital, Udham Singh Nagar, Bareilly and Basti in the Tarai region and Barabanki, Sitapur and Lucknow in the central Uttar Pradesh, Jalandhar in Punjab and Ambala (Narayangarh) and Yamunanagar in Haryana and Muzaffarpur in Bihar.

Major Mentha oil markets in Uttar Pradesh are Chandausi, Sambhal and Barabanki. Distilled mentha oil is brought into the specific markets by farmers/producers and sold to commission agents. Mentha processors, crystal manufacturers and exporters purchase the crop from the market as per requirements.

Production of Mentha oil in India

Since, the last one decade acreage and production has been rising for mentha crop as the farmers were attracted towards this crop due to higher price realization. Closure of sugar mills in Uttar Pradesh and increasing demand from diversified sectors like food and pharma industries have also acted as a catalyst for bringing more area under mentha, resulting into increase in production. However, for the past couple of years, the pace of growth in production has slowed down.

Chart 7: India menthol production and area



Source: Trade sources

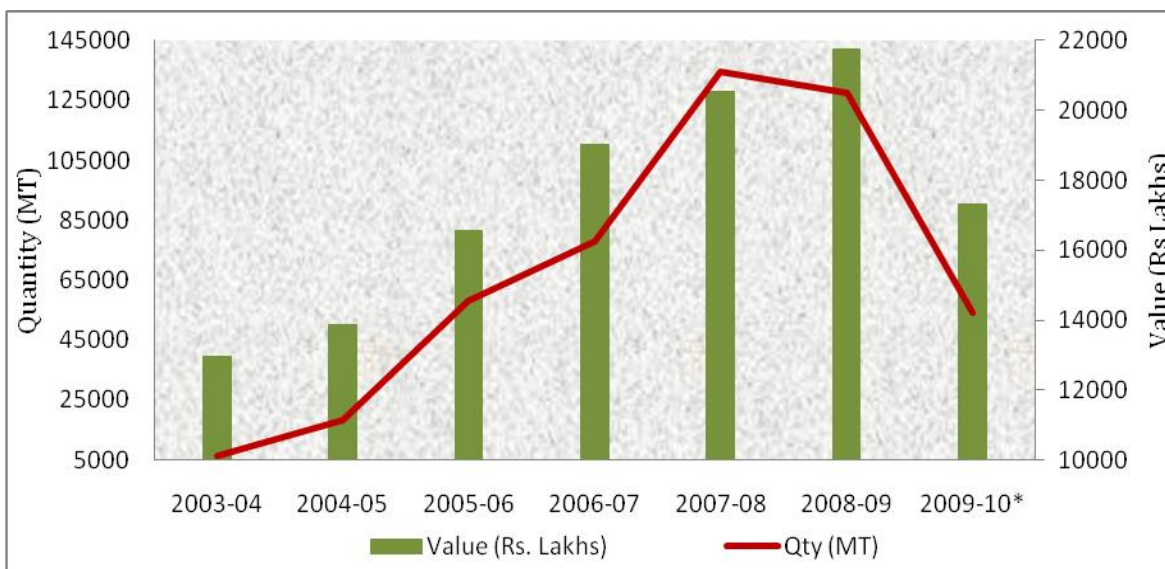
This is because prices fell to Rs.440 per kg by March 2006 from Rs.750 per kg in the beginning of 2006.

During 2009, despite the fall in acreage by 10-12% to nearly 1.60 lakh hectares, production remained stagnant around 35,000 tonnes. For 2010, mentha oil production is expected to be better than last year supported by favourable weather and good price realization by farmers. During 2009, the spot prices had never fallen below Rs.500 per kg, which is a good price to the farmers. However, exact acreage estimates and production expectations will only be available by end of April after completion of sowing across all the major growing areas.

Exports of mint products from India

Indian mint products exports have increased in a steady manner for last 4-5 years and recorded an all time high in 2007-08 in quantity terms. Exports of mint products during 2007-08 was 21,100.10 tonnes valued Rs.1,28,050 lakhs which was 30% up in quantity terms and 16% in value terms as compared to previous year. In 2008-09, India has exported a total of 20,500 tonnes of mint products valued Rs.1,42,025 lakhs which is 3% lower in quantity terms but 11% higher in value terms as compared to previous year. Exports of mint products during April 09 to January 10 was 14,225 tonnes valued at Rs.90,360 lakhs, which was 18% lower in quantity terms and 24% lower in value terms as compared to the data for corresponding period during 2008-09.

Chart 8: Exports of mint products from India since 2003-04 till 2008-09



Source: Spices Board

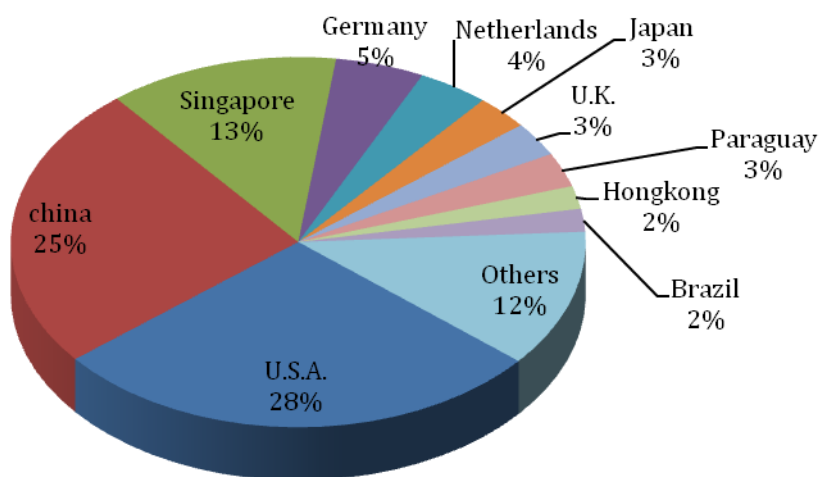
Note: the export data for 2009-10 is from April 2009 to January 2010

During January 2010, mint products exports from the country have been 1,350 tonnes valued Rs.8707.50 lakhs, which is 2% lower in quantity terms and 8% down in Value terms as compared to the exports for corresponding period last year.

Export destinations for Indian mint products

India is the largest exporting country for mentha oil. It exports nearly 60-62% of the total mentha oil production. Mint products including mint oils, menthol crystals and menthol powder, is the single largest product group in the export basket accounting for 27% of spices export from India.

Chart 9: Countries to which India Exports Mint products



Source: Spices Board (data for 2008-09)

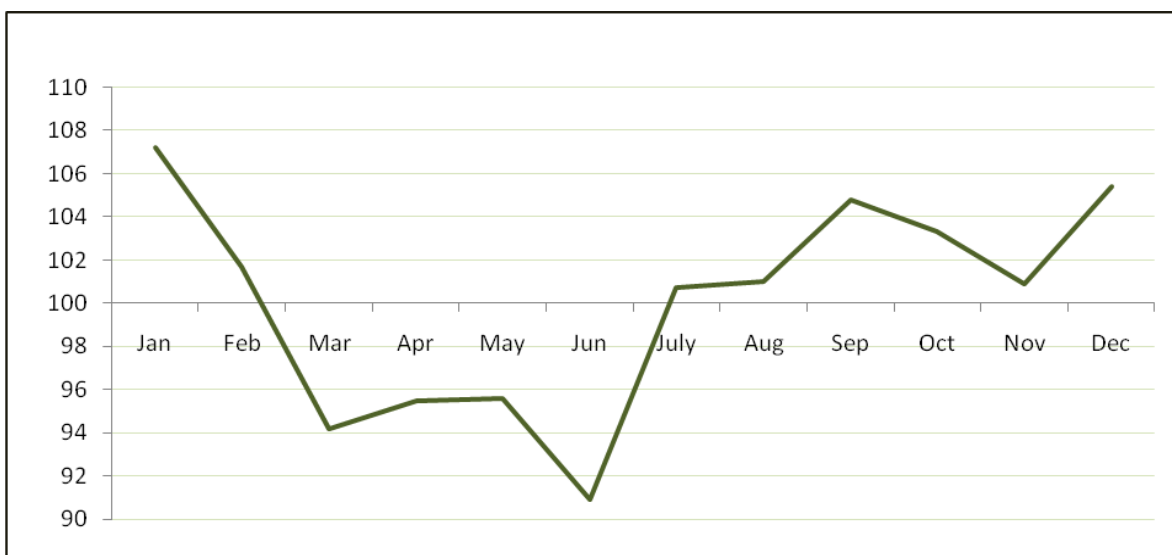
Mint products are exported to USA (5675 tonnes) and China (5200 tonnes) and these two countries together accounts for more than 53% of total mint exports. The other major buyers are Singapore (2700 tonnes), Germany (1100 tonnes), Netherlands (800 tonnes) and Japan (575 tonnes).

Price seasonality

The seasonality chart for mentha oil shows a typical downtrend in prices beginning from January to June. The trend depicted through seasonality chart is in tune with the market fundmanetals of supply and demand. The sowing of the crop starts from January and continue till March. On the other hand upon drying up of domestic demand January onwards, export demand remains the major driving factor.

Prices shows signs of revival by July following gain in domestic demand with receding monsoon season. June to September is considered mainly as storage season, as crystallization becomes difficult during rainy season. The typical winter demand factor for mentha oil starts acting from November onwards leading to rise in prices.

Chart 10: Price seasonality chart of mentha oil based on spot prices from 2006-2009



Crop estimates for 2010

For 2010, area under mentha crop is expected to remain more or less same as per last year, as per market sources. During 2009, farmers have realized good prices for their crop and hence the area under the crop is expected to be maintained.

Supply - Demand dynamics for 2010

Supply		Demand	
Production	35,000	Exports	21,000
Opening stocks	10,000	Domestic consumption	10,000
		<i>Carry forward to 2011</i>	<i>14,000</i>
Total	45,000	Total	45,000

For the year 2010, no shift in mentha oil cultivation is expected, as farmers are finding mentha as a better cash crop as compared to wheat or other Rabi season crops. As per trade sources, mentha oil

production is likely to be around 34,000-36,000 tonnes in 2010. Weather conditions will play a crucial role for another 2-3 months, till the harvesting is completed.

Generally, carry forward stocks remain in the range of 6,000-8,000 tonnes every year. This year the carry forwards from 2009 i.e. opening stocks for 2010 has been slightly on the higher side. Besides, this, the availability of stocks by the end of the year 2010 is also expected to remain on the higher side around 14,000 tonnes.

The pace of domestic demand, export demand, acreage situation and weather conditions throughout the crop growing season will be the deciding factors to watch from now. However, under the prevailing conditions of good weather across growing areas and normal sowing estimates, production for 2010 is expected to hover around the last year levels of 34,000-36,000 tonnes.

Price view for 2010

Our analysis based on above mentioned factors suggests that mentha oil prices are expected to show bearish trend in 2010 due to higher stocks and good crop prospect. Currently, the spot prices are around Rs 667-668 per kg at the major market of Chandausi in Uttar Pradesh and expected to move upto Rs 672-675 per kg by April. The futures prices are also expected to follow the same trend and MCX mentha oil futures are likely to rise in short term. Thereafter, the trend is expected to remain bearish. Appreciation of rupee is another factor adding to export woes.

Looking into the current trend, mentha oil prices are expected to trade sideways with slight positive bias till end of April taking cues from the higher spot rate, domestic demand and export demand. However, production estimates, which are likely to be available in the month of May, might give fresh direction to the market. If, production estimates remain on the higher side then we might see a bearish trend. The prices might show some intermittent recoveries depending on export demand. Prices are expected to trade on a negative note in third quarter due to arrival pressure. Revival of winter demand during October-November is likely to fetch some recovery in the prices.

Technical analysis

Technically Mentha oil chart is trading on a higher note after a slight correction over certain months. The rising three line pattern (seen in Rectangular box) suggesting a bullish trend in short term. The momentum indicator, RSI is at 0.5801 indicating prices to go up. Moving average convergence divergence (MACD) indicator is showing the crossover of 12 EMA above 26 EMA the

signal line also confirming the short term bullishness. The crossover of %K above %D in stochastic indicator also signaling a buy at lower side. The crossover of 10 EMA (green) above 20 EMA (yellow) also confirming an upward trend on near term. The crucial support is seen at 567.8 levels which is the 61.8% Fibonacci retracement of 567.8- 637.55 is vital trading range.

However, in long term, the lower highs trend line (long red dash) indicating the prices was falling from a high of 933.10 on 2006 and then at 791 on 2008 suggesting bearishness. The crucial resistances can be seen at 640 and then at 690. Likewise, we can see supports at 570 and then at 553.



Outlook

Mentha oil futures prices can trade upward in a range of 550 - 650 for next month.

Recommendation

We recommend mentha oil to buy above 620-625 targeting a price at 700 stop loss below 575.

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