

# Steady Progress in China's Aromatics Industry

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China's perfumery industry is among the nation's fastest growing sectors. Total production of essential oils and aromatic chemicals in 1988 was estimated at 41,430 tons, an increase of 11.9 percent over the previous year, according to the Light Industry Ministry. This compares with output of 22,245 tons in 1980 and 8,571 tons in 1965.

The Chinese factories need to consolidate and bring in foreign technology and management skills to upgrade their production. In Tianjin, a number of perfumeries recently have formed a group named the Tianjin United Flavors and Fragrances Corporation to expand production.

To raise production and improve quality, the country's leading perfumeries are seeking funds and technology from other countries. The Shanghai Daily-Use Chemicals Corporation teamed up with the U.S. Florasynth Inc. in October 1983 to form the Shanghai COSFRA Ltd. The US side invested just over half the one million yuan (US \$270,000) capital. This amount has since been increased to 7 million yuan. In the five years since the company has been going, output has increased from 2 million yuan to 8 million yuan (US \$2.15 million).

International Fragrances and Flavors Inc. (IFF) of New York is about to make China its production base for an assault on the whole Far Eastern market. Already with sales of some US \$7 million of aromatic chemicals and fragrances annually in China, IFF is negotiating with Chinese perfumeries in Guangzhou, Tianjin and Shanghai to start co-production ventures.

According to Liu Shuquan, a ministry official in charge of the perfumery industry, the current economic reforms and rising living standards have boosted the industry. Sales of cosmetics and toiletries have been growing at an annual rate of more than 20 percent, and the food, drinks and

Table I. Unit ton				
(I) Essential Oils	1986	1987	increase (%)	
Menthol crystals	3,244	3,518	8.4	
Peppermint oil, dementholized	1,526	1,759	15.2	
Raw peppermint oil	1,323	1,171	-11.4	
Spearmint oil	203	378	86.2	
Citronella oil	1,139	1,037	-9.0	
Litsea cubeba oil	1,608	2,567	59.6	
Eucalyptus oil	1,346	1,379	2.5	
Cedarwood oil	645	966	49.8	
Osmanthus oil	1,123	888	-20.1	
Star aniseed oil	399	420	5.2	
Geranium oil	85	85	—	
Osmanthus concrete	0.44	0.5	11.9	
(II) Aromatic chemicals				
Vanillin	1,047	1,359	29.8	
Coumarin	355	420	18.3	
Heliotropin	112	155	38.4	
Musk xylol	483	390	-19.3	
Musk ketone	103	107	3.9	
Musk ambrette	113	114	0.9	
Sandenol, synthetic	179	227	26.8	

cigarette industries also have used growing amounts of aromatics.

Output of cosmetics alone was 1.4 billion yuan (US \$377 million) in 1988. Since the early 1960s, the number of perfumeries has increased from a dozen to nearly one hundred, and the number of workers and staff from some 700 to the present 18,300, Liu says.

China's vast and varied land area which extends over tropical, subtropical and temperate zones provides favorable conditions for growing aromatic plants and for breeding aroma-secreting animals. There are about 400 kinds of aromatic plants. Major varieties from which fragrances traditionally have been extracted in China include jasmine, peppermint, spearmint, anise, Pogostemon cablin (patchouli), osmanthus, rose, Michelia alba, cassia and Cinnamomum camphora var. linaloolifera (ho oil). Aroma-secreting animals include civet, beaver, otter and musk deer.

China now turns out more than 150 kinds of natural aromatics and essences and about 600 kinds of aromatic chemicals. Total output in 1987 was 37,276 tons valued at 1.12 billion yuan (about US \$302 million). The output of major products in the year is listed in Table I.

Most of China's natural fragrance factories are in the southern provinces, while factories producing aromatic chemicals are concentrated in large industrial cities including Shanghai, Tianjin and Shenyang. These factories produce more than 500 varieties of synthetic aromatic chemicals.

To ensure a steady supply of raw materials, the ministry has allocated certain areas of land to grow aromatic plants. There are about 24,000 hectares of land growing 42 kinds of natural aromatic plants. These include 47,000 hectares for roses, 42,000 hectares for litsea cubeba, 2,000 hectares for geraniums, and 1,900 hectares for eucalyptus. Other major items include Michelia alba, jasmine, lavender, cassia, ylan ylan, lemon, anise, vetiver patchouli and geranium.

In addition, foreign trade companies have set up aromatic plant production bases of their own to ensure supplies for export. The bases have a combined area of 133,000 hectares, far more than the acreage allocated by the Light Industry Ministry. They are mainly for the production of peppermint oil, spearmint oil and citronella oil.

Aroma-secreting animals are being bred under artificial conditions. Some 700 civets are being kept in the Hangzhou Zoo and another 100 civets raised on an island in Xinanjiang Reservoir, both in Zhejiang province, each China. In Sichuan, the Ministry of Agriculture has a base for breeding musk deer.

China exports aromatics to about 100 countries;

Table II. Amount in US \$1 million

(I) Essential Oils	1984	1987
Menthol crystals	22.43	33.20
Peppermint oil, dementholized	12.24	10.04
Raw peppermint oil	7.20	4.62
Spearmint oil	2.48	3.38
Citronella oil	6.21	6.58
Cassia oil	8.37	5.77
Litsea cubeba oil	6.88	7.03
Eucalyptus oil	4.79	5.81
Cedarwood oil	4.22	1.98
Star aniseed oil	3.49	4.34
Pine oil	1.07	0.78
Eucalyptus citriodora oil	1.09	2.02
Sassafras oil	0.65	3.03
Camphor, natural	1.27	1.13
(II) Aromatic Chemicals		
Citric acid	18.23	33.54
Calcium citrate	0.57	0.28
Camphor, synthetic	6.97	8.53
Vanillin	4.91	5.45
Coumarin	2.98	4.20
Heliotropin	1.95	2.38
Musk xylol	1.45	1.65
Musk ambrette	1.28	1.43
Methyl salicylate	1.52	1.70
Ethyl acetate	1.46	0.59

about half the exports are natural varieties. Many traditional export items enjoy a high reputation on the world market, such as peppermint camphor, osmanthus concrete, jasmine concrete, cassia bark oil, star anise oil, lemon oil, Michelia alba concrete, vetiver oil, citrus aurantium var. amara oil, vanillin, coumarin and heliotropin. Total exports were US \$240 million in 1987, an increase of 14 percent over the previous year. Table II shows China's major export products.

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