

ESSENTIAL OILS AND PERFUMERY CHEMICALS

Perfumes occupy an important place in modern life style. Apart from cosmetic and toiletry products perfumes are used in many products to mask odor and improve appeal.

Perfumes available to end-user are formulations containing a number of components (normally 10 to 15). The main constituents are:

1. Odoriferous substances that give the pleasant aroma.
2. Fixatives that hold the Individual components together to give uniformly blended smell
3. Diluents, (usually highly purified alcohol) which reduces the intensity of the aroma.

Odoriferous substances are the main components obtained from different sources.

- a) Natural: Essential oils derived from flowers, leaves.
- b) Isolates: Components separated from natural products.
- c) Semi synthetics: Isolates modified by chemical process
- d) Synthetics: Made in the laboratory.

As standard of living improves all over the world demand for perfumes and consequently, odoriferous substances is increasing. This is a promising sector for entrepreneurs aspiring to enter the manufacturing sector.

Proposal:

There are many small producers spread through out the country, distilling aromatic oils from flowers, grasses and leaves. The small level of operation does not permit standardization and purification to command high price. Our suggestion is to fill this gap.

Product mix:

The strategy is to develop niche markets that have growth potential. A tentative product mix for a project to be set up in A.P. is given below.

Palma Rosa oil	20 Tons / yr
Davana oil	20 Tons / yr
Vetiver	5 Tons / yr
Geranium	5 Tons / yr
Patchouli oil	10 Tons / yr
Lime oil	5 Tons / yr
Jasmine oil	1 Tons / yr
Kewda oil	1 Tons / yr

Isolates / semi-synthetics

Geraniol	10 Tons / yr
Citronellol/ Hydoxy citronellal	10 Tons / yr

<u>Consumer products</u>	10 million bottles / yr
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Market:

Global perfumery ingredients market is estimated at US \$ 1.5 billion and growing at 5 % per year. Recent trends like shift to naturals, aromatherapy, and popularity of potpourri are driving the growth. Markets in India and China are growing at much faster rate.

The international market in essential oils is controlled by few perfume and flavor houses, which develop formulations for the end users like cosmetic manufacturers. It is difficult and time consuming to get an access to these large companies, for a small manufacturer. The operations have to be large enough to supply a tonnage lot having consistent quality.

Manufacturing process:

The essential oils obtained by steam distillation at small farms have variations in quality and may contain excess moisture. The small lots are combined and redistilled under low temperature conditions to obtain marketable lots with consistent quality.

Isolates are produced by fractional distillation of essential oils. Semi-synthetics are derived by processes like esterification and hydrogenation.

Technology:

Research institutions like central Indian medicinal and aromatic plants research institute, have developed technologies for isolation and purification of essential oils. Apitco can arrange the technology tie-up.

Plant and Machinery:

Plant and machinery required consist of fractional distillation units, reaction vessels. Blending tanks. Steam generation plant.

Most important part of the plant is a laboratory with analytical equipment and instruments for quality control. This can play a major role in getting acceptability from international buyers.

Raw materials:

The raw materials are to be sourced from small producers of essential oils. Contracting manufacturing can also be considered. Profitability will be greatly enhanced if specialty products can be developed. One example is Lime oil (from acid lime peels) and lime leaf oil. Kewda oil (from "Mogili rekulu") is another example.

Utilities:

Utilities required are water, steam and power. The requirements are moderate.

Project cost:

Plant that is presentable to International buyers can be set up at a cost of about Rs. 5 crores

Turnover and profitability:

Turnover of Rs. 20 crores per year that can be increased to Rs. 50 crores is a possibility. Getting to consumer products like potpourri bottles, air fresheners, will be necessary to increase the turnover.

Suggested location:

This is a foot loose unit and can be set up any place where basic infrastructure is available. To exhibit the unit to international buyers proximity to International airport will be an advantage.

Entrepreneur profile:

This is a high working capital oriented unit with long gestation period. Technology aspects are not critical. Financially sound entrepreneurs looking for long range high return investment can consider this project.

Apitco's consultancy

1. Finding marketing and technical consultants
2. Product mix selection
3. Finding low cost financing options