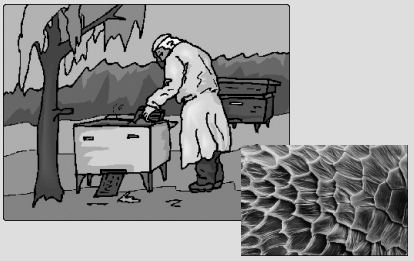

BEE KEEPING & HONEY PROCESSING

1.0 INTRODUCTION

Honey is a consumable product and it is also used extensively in making Ayurvedic medicines. Natural honey is always in demand round the year. Natural honey is obtained from honey bees and hence bee-keeping is a profitable activity. But it has to be undertaken at a place where there is a very limited movement of people or vehicles. This activity has potential to provide regular income especially in rural areas. Therefore, the government is also encouraging this activity and Khadi and Village Industries Board extends many incentives as well as marketing support.

2.0 PRODUCT

2.1 Applications

Three species of honey bees exist in India viz. Apis Dorsta, Apis Flora and Apis Indica. These species are reared for honey-combs. Pure or natural honey is extracted from bees. This honey is in great demand round the year especially for Ayurvedic medicinal purposes. Many health conscious people consume it regularly. It is also used in making certain health food preparations.

2.2 Quality Standards

Quality standard specified by the BIS for honey is 4941:1968

3.0 MARKET POTENTIAL

Honey has substantial medicinal properties and is used in India since long. Procurement of natural or pure honey is becoming difficult due to urbanisation and de-forestation. Simultaneously, its demand is steadily increasing as Ayurvedic medicines are becoming more and more popular. To facilitate rearing of honey bees to obtain natural honey, many government agencies are providing assistance/incentives. Mahabaleshwar hill station of

Satara district in Maharashtra is an ideal location for this activity. Realising this potential of the area, Bee-keeping Directorate provides training as well as buy-back facilities at this centre. Thus, this activity has very good potential in and around Mahabaleshwar. There are many locations in the North East States of the country where this activity can be taken up.

4.0 MANUFACTURING PROCESS

As explained earlier, Bee-keeping activity should ideally located where there are minimum movements of human-beings with very little noise. Forest area is, therefore, suited with many flowering plants naturally grown. Movable wooden frames with boxes are placed at such locations and these boxes are spread with honey spice to attract more and more honey-bees. These bees leave fresh honey sucked from flowers in the cells of honey-comb provided in the boxes to eat bee feed. When these cells are full of honey, they are hermetically sealed by capping with wax and then honey is extracted from these cells. Freshly extracted honey is warm and easy to bottle. It is essential to undertake proper training of extraction and bottling.

5.0 CAPITAL INPUTS

5.1 Land and Building

Land has to be in the secluded and forest or hilly area. A plot of around 150-200 sq.mtrs. is sufficient. To limit the capital cost, the promoter can start this activity on own land or it can be obtained on long term lease. There is no need to have a sturdy building but a shed of around 20-25 sq.mtrs. with asbestos sheet roofing is sufficient. It may cost Rs.15,000/-.

5.2 Machinery

This is not a manufacturing activity as such and no machines are required. There is nothing like production capacity as well. Small wooden frames with boxes are needed. Their sizes are also standardised. Around 30 such sets would cost Rs.45,000/-. Honey extractors would cost Rs. 5,000/- each with filtration facilities. Two such extractors would mean investment of Rs. 10,000/-. Manually operated bottle capping machine would be available at about Rs. 2,000/-. Thus, total investment for support facilities would be Rs. 57,000/-.

5.3 Utilities

There is no need to have industrial connection for power and even domestic supply is sufficient. In case of non-availability of power connection (due to peculiar location), the operations can be carried out during day-time.

5.4 Raw Material

There are no raw materials as such. Honey feed of about Rs.90,000/- will be required every year for 30 boxes. Quantum of bottles would depend upon the type of packing. In case of bulk packing, bottles could be of bigger sizes. However, average cost per kg. is taken at Rs.4/-.

6.0 MANPOWER REQUIREMENT

Particulars	Qty.	1st Year	2nd Year
Skilled Workers	2	2,250	4,500
Helpers	2	1,000	2,000

7.0 PROJECTED PROFITABILITY

7.1 Sales Income

There are no standards in terms of capacity or capacity utilisation and hence production and therefore sale cannot be quantified. But as per the established norms, each box is able to collect around 20 kgs. of honey every month or about 240 kgs. every year. Since it is suggested to have 30 boxes, the annual collection could be 7,200 kgs. Even after considering very conservative selling price of Rs. 90/- per kg; the annual realisation would be Rs. 6, 48,000/-.

7.2 Maintenance Cost

There are not much maintenance costs as there are no machines or a large building with utilities. Hence, monthly provision of Rs. 2,500/- is adequate.

7.3 Interest

It is assumed that as against capital expenditure of Rs.72,000/-, loan of Rs.50,000/- would be availed @ 12% per annum which will be repaid in 2½ years including a moratorium period of 6 months.

7.4 Depreciation

Bulk of the investment will be on wooden frames with boxes. Hence, flat provision of Rs. 5,000/- is made every year.

7.5 Capacity and Build-up

There is no measurable capacity as such but as explained earlier, on an average, each box collects around 240 kgs. of honey every year. The quantity depends on exact location, flowering varieties, climatic conditions etc. Hence, as against this industry average, actual collection is expected to be 60% and 70% during first two years.

8.0 COST OF THE PROJECT AND MEANS OF FINANCING

(Rs. in lacs)

Item	Amount
Land	Own
Building	0.15
Equipments	0.57
Total	**0.72**
Means of Finance	
Promoters' Contribution	0.22
Loan from Bank/FI	0.50
Total	**0.72**
Debt Equity Ratio	2.27 : 1
Promoters' Contribution	31%

Financial assistance in the form of grant is available from the Ministry of Food Processing Industries, Govt. of India, towards expenditure on technical civil works and plant and machinery for eligible projects subject to certain terms and conditions.

9.0 PROJECTED PROFITABILITY

(Rs. in lacs)

No.	Particulars	1st Year	2nd Year
A	**Sales Realisation**	**3.89**	**4.54**
B	**Cost of Production**		
	Raw and Packing Materials	1.08	1.10
	Utilities	0.18	0.24
	Salaries	0.78	0.90
	Repairs & Maintenance	0.30	0.42
	Selling and Administrative Expenses	0.42	0.54
	Total	**2.76**	**3.20**
C	**Profit before Interest & Depreciation**	1.13	1.34
	Interest on Term Loan	0.06	0.04
	Depreciation	0.05	0.05
	Profit before Tax	1.02	1.25
	Income-tax @ 20%	--	0.05
	Profit after Tax	1.02	1.20
	Cash Accruals	1.07	1.25
	Repayment of Term Loan	0.12	0.24