

RAISIN (KISHMISH)



1.0 INTRODUCTION

Raisins are basically dry grapes and they are known as kishmish, bedana, manuka or dry fruit. During earlier days, grapes were dried on plants only which was a very crude method resulting in wastages. Processing using some chemicals was invented but there was considerable consumer resistance. Since then a new method without use of chemicals, known as Australian method, has been introduced successfully. Sangli and Nasik districts of Maharashtra grow large quantities of grapes and many growers or gardeners are keen to supply to raisin makers due to assured market. Maharashtra is, therefore, a preferred location.

2.0 PRODUCT

Raisin is a popular dry fruit item with shelf life of around 6 months if stored properly. Apart from use as a dry fruit item, it is used in large quantities in many sweet preparations, some farsan items and desserts.

2.1 Compliance under the FPO and PFA Act is mandatory.

3.0 MARKET POTENTIAL

3.1 Demand and Supply

Raisins are popular in India since long. Apart from regular use in many preparations, a small quantity is also used in some herbal medicine preparations. Grapes from Nasik and Sangli districts of Maharashtra are famous all over the country. Grapes are perishable but raisins have a fairly long shelf life.

3.2 Marketing Strategy

There are stockists at all major trading centres who buy large quantities as and when required and then sell it to retailers in smaller lots. Normal demand is witnessed for raisins throughout the year and it picks up during festive and marriage seasons. Demand from individual households is not much but restaurants, star hotels, caterers and sweet-meat makers are the major consumers. These two centres of Maharashtra supply bulk quantities to western, central and north Indian states.

4.0 MANUFACTURING PROCESS

Harvesting of grapes starts from January and ends by May every year. Hence, this business is seasonal and factories work for 6 months every year. Since sun-drying method is adopted, location of the factory has to be at a place where the day time temperature is in the range of 35 to 41° C with minimum humidity or dry weather. Fully grown, ripe and good quality grapes are separated and are put on drying racks after dipping them in preservatives. Large sheds of 250' length and 20' width and height of around 10' with fabricated steel structure are made and they are covered from top by galvanised sheets. Each shed has racks of around 5' width at regular distance of around 10". Thus total capacity of each shed is around 30 tonnes of grapes. Around 1 kg. of grapes are spread over 1 sq.ft. area and the drying time is 10-12 days depending upon the actual temperature. One kg. grapes yield around 250 gms. of raisin of 3 different qualities. These 3 grades are basically decided by size. Even-sized properly dried raisins are about 75%, around 22% are of middle category and balance 3% are of smaller and uneven sizes.

5.0 CAPITAL INPUTS

5.1 Land and Building

Land of about 7500 sq.ft., preferably in rural area from where grape gardens are easily approachable, is enough with a drying shed of around 5000 sq.ft. as explained earlier. A small room of around 250 sq.ft. would act as storage. Land may cost Rs. 1,00,000/- whereas drying shed and a small room would cost Rs. 5.00 lacs.

5.2 Machinery

Most of the operations are manual. Grading machine for gradation and cleaning of raisins is recommended which would cost Rs. 50,000/-.

5.3 Miscellaneous Assets

Other assets like furniture & fixtures, storage racks for finished goods, weighing scales, fruit crates, sealing machine etc. would cost around Rs. 50,000/-.

5.4 Utilities

Power requirement will be 7.5 HP and utilisation would be for a period of 6 months. About 650-700 ltrs. of water will be required every day. Per season cost of utilities will be Rs.60,000/-.

5.5 Raw Material

The most critical material will obviously be grapes. Grapes from Sangli district are more suited for raisins. Its dry atmosphere also helps improve quality of raisins. Around 20,000 tons of grapes are produced in Sangli district whereas Nasik district produces about 15,000 tons. Hence, the location has to be in either of these 2 districts to ensure smooth supply of grapes. Plastic bags of 1, 2 and 5 kgs. capacity will be required for packing of raisins.

6.0 MANPOWER REQUIREMENTS

Two skilled workers and 2 security persons to guard the stocks shall be required during the season. Their salary during the season will be Rs. 45,000/-. Other work like sorting and placement of grapes on racks, removal of damaged or spoilt grapes periodically from racks and gradation of raisins and packing is done on contract basis @ Rs. 1500/- per ton.

7.0 TENTATIVE IMPLEMENTATION SCHEDULE

Activity	Period (in months)
Application and sanction of loan	2
Site selection and commencement of civil work	1
Completion of civil work and placement of Orders for machinery	4
Erection, installation and trial runs	1

8.0 DETAILS OF THE PROPOSED PROJECT

8.1 Building

Land of around 7500 sq.ft. with a drying shed of 5000 sq.ft. and a small room of 250 sq.ft. would cost about Rs. 6.00 lacs.

8.2 Machinery

Only grading machine is required costing about Rs. 50,000 as explained earlier.

8.3 Utilities

Per season expenditure on utilities will be Rs. 50,000/- as explained earlier.

8.4 Preliminary & Pre-operative Expenses

There will be many pre-production expenses like establishment, administrative and travelling charges, interest during implementation and so on for which a provision of Rs.50,000/- is made.

8.5 Working Capital Requirement

At 65% capacity utilisation in the first year, the working capital needs will be as under:

(Rs. in lacs)

Particulars	Period	Margin	Total	Bank	Promoters
Stock of WIP	½ Month	30%	1.50	1.05	0.45
Stock of Finished Goods	½ Month	25%	1.60	1.20	0.40
Receivables	½ Month	25%	1.90	1.40	0.50
Working Expenses	1 Month	100%	0.40	--	0.40
		Total	5.40	3.65	1.75

8.6 Cost of the Project and Means of Financing

(Rs. in lacs)

Item	Amount
Building	6.00
Machinery	0.50
Miscellaneous Assets	0.50
P&P Expenses	0.50
Contingencies @ 10% on Building and Plant and Machinery	0.65
Working Capital Margin	1.75
Total	9.90
Means of Finance	
Promoters' Contribution	3.00
Term Loan from Bank/FI	6.90
Total	9.90
Debt Equity Ratio	2.30 : 1
Promoters' Contribution	30%

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 PROFITABILITY CALCULATIONS

9.1 Production Capacity and Build-up

Drying shed would have capacity to dry 30 tonnes of grapes in 12 days. The factory would work for 180 days during January to June every year. Thus, rated capacity would be processing of 450 tonnes of grapes. With yield of 25%, production of raisin will be 115 tonnes. As against this, the actual utilisation is assumed to be 65% in the first year and 75% from second year onwards.

9.2 Sales Revenue at 100%

(Rs. in lacs)

Product	Qty. (Tonnes)	Selling Price (Rs.)	Sales
Grade-A (75%)	86	65,000	55.90
Grade-B (22%)	25	50,000	12.50
Grade-C (3%)	40	40,000	1.60
		Total	70.00

9.3 Raw Materials Required at 100%

(Rs. in lacs)

Product	Qty. (Tonnes)	Rate per Ton	Value
Grapes	450	10,000	45.00
Preservatives	--	--	1.50
Packing Materials	--	--	1.20
		Total	47.70

9.4 Utilities

Per season cost of utilities at 100% utilisation would be Rs.60,000/- as explained earlier.

9.5 Interest

Interest on term loan of Rs. 6.90 lacs is calculated @ 12% per annum assuming complete repayment in 4 years including a moratorium period of 1 year. Interest on bank assistance for working capital is computed @ 14% per annum.

9.6 Depreciation

The method selected is WDV and rates assumed are 10% on building and 20% on machinery and miscellaneous assets.

10.0 PROJECTED PROFITABILITY

(Rs. in lacs)

No.	Particulars	1st Year	2nd Year
A	Installed Capacity	--- 450 Tonnes ---	
	Capacity Utilisation	65%	75%
	Sales Realisation	45.50	52.50
B	Cost of Production		
	Raw Materials	31.00	35.77
	Utilities	0.39	0.45
	Salaries and Labour Charges	4.85	5.51
	Stores & Spares	0.24	0.30
	Repairs & Maintenance	0.36	0.42
	Selling Expenses @ 5%	2.26	2.62
	Administrative Expenses	0.30	0.36
	Total	39.40	45.43
C	Profit before Interest & Depreciation	6.09	7.07
	Interest on Term Loan	0.77	0.52
	Interest on Working Capital	0.51	0.59
	Depreciation	0.70	0.61
	Net Profit	4.11	5.35
	Income-tax @ 20%	0.82	1.05
	Profit after Tax	3.29	4.30
	Cash Accruals	3.99	4.91
	Repayment of Term Loan	--	2.10

11.0 BREAK-EVEN ANALYSIS

(Rs. in lacs)

No	Particulars	Amount	
[A]	Sales		45.50
[B]	Variable Costs		
	Raw and Packing Materials	31.00	
	Utilities (70%)	0.28	
	Salaries & Labour Charges(70%)	3.87	
	Stores & Spares	0.24	
	Selling Expenses (60%)	1.36	
	Admn Expenses (50%)	0.15	
	Interest on WC	0.51	37.41
[C]	Contribution [A] - [B]		8.09
[D]	Fixed Costs		3.97
[E]	Break-Even Point (D ÷ C)		49%

12.0 [A] LEVERAGES

Financial Leverage

= EBIT/EBT
 = 5.40 ÷ 4.12
 = 1.31

Operating Leverage

= Contribution/EBT
 = 8.09 ÷ 4.12
 = 1.96

Degree of Total Leverage

= FL/OL
 = 1.31 ÷ 1.96
 = 0.67

[B] Debt Service Coverage Ratio (DSCR)

(Rs. in lacs)

Particulars	1st Yr	2nd Yr	3rd Yr	4th Yr
Cash Accruals	3.70	4.91	5.13	5.38
Interest on TL	0.77	0.52	0.27	0.13
Total [A]	4.47	5.43	5.40	5.51
Interest on TL	0.77	0.52	0.27	0.13
Repayment of TL	--	2.30	2.30	2.30
Total [B]	0.77	2.82	2.57	2.43
DSCR [A] ÷ [B]	5.81	1.92	2.10	2.26
Average DSCR	----- 3.02 -----			

[C] Internal Rate of Return (IRR)

Cost of the project is Rs. 9.90 lacs.

(Rs. in lacs)

Year	Cash Accruals	24%	28%	32%
1	3.70	2.98	2.89	2.80
2	4.91	3.19	3.00	2.82
3	5.13	2.69	2.45	2.23
4	5.38	2.28	2.01	1.77
	19.12	11.14	10.35	9.62

The IRR is around 33%.