

PROJECT PROFILE

Product	:	Ayurvedic Medicines		
Quality Standard	:	As per Ayurvedic Shastra		
Production Capacity	:	1.	Ashokarishta	30000 Bottles
		2.	Lakhibilas Ras	20000 Bottles
		3.	Lavan Bhaskar Churan	60000 Boxes
		4.	Sitopaladi Churan	3000 Boxes
		5.	Chyavan Prash	3000 Boxes
		6.	Gandhakadi Malham	18000Boxes/Oint
		7.	Mritsanjivni	10000 Packs
Value (Rs)		Rs. 57,60,000/-		
Month & Year of preparation	:	March 2010		
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INTRODUCTION :

Ayurvedic medicines are being popular day by day because these medicines used in the treatment of all kind of diseases. Ayurvedic system of medicine is as old as the vedic age. Now-a-days people give preference to the Ayurvedic medicines as the Allopathic medicines are costlier and have side effects. Ayurvedic medicines are based on plants, animals extracts and minerals both in single ingredient drugs and compound formulations. Basic raw materials used in the formulation of ayurvedic machines are mainly plant origin hence consumption of ayurvedic medicine does not produce any major adverse effect on body beside the use of allopathic medicines may cause harmful effect on kidney, liver, intestines, alongwith some allergic effect to skin.

Products Arishta, Awleha, Churna, chyanpras, and taila are the common drugs of present era & these medicines may be used without doctors prescription. The Ayurvedic drugs are derived from vegetable sources from the various parts of the plant like root, stem, leaf, flower, fruit extract or plant as a whole.

There are about 21 varieties of compound formulations in which some of the single drugs of animal origin (52 nos.), Mineral origin (55 Nos.) and plant origin (351 Nos.) are used. The details of the single drugs and other particulars can be had from the Ayurvedic Formulary of India, published by Govt. of India, Ministry of Health and Family Welfare.

All the raw materials such as herbs, minerals etc. for preparation of Ayurvedic medicines are available in India abundantly, particularly in N.E. Region and Himalayan Range as a whole.

MARKET POTENTIAL :

There are more than 500 Pharmaceuticals Industries are working in the state of Haryana. Approximately 200 out of 500 units are engaged in manufacturing Ayurvedic medicine. Since ancient times India is a preacher for Ayurvedic medicines and its use for mankind. Earlier their use was only confined to the rural area, but due to increasing side effects of allopathic medicines use of such type medicines increasing both in rural and urban areas and demand for Ayurvedic medicines is increasing till date. The rural areas are still using Ayurvedic medicines for the treatment of their sickness and only in chronic disease cases use to take allopathic medicines. These are some Ayurvedic units known by this office & are engaged in manufacturing various type ayurvedic drugs i.e. M/s Baba Ayurvedic Bhavan, M/s Uttam Lab, M/s Aggarewal C/p Ayurvedi products. M/s Sukhija Ayurvedic Pharmacy & M/s Uttam Exports, olden herbs, Cure quick pharma, Zee Herbal. Param Pharmaceuticals etc are located in Karna and M/s Yamuna Pharmacy Yamuna Nagar. These units are selling their products in the adjoining states.

Further more, Haryana state is very near to Himacal Pradesh, Western U.P. hills, Jammu & Kashmir which have abundant raw material used in the

manufacturing of Ayurvedic medicines. Hence, by seeking the demand of Ayurvedic medicines and in the overseas market, installing of 5-10 Ayurvedic medicines manufacturing units is the demand of hour. Suitable sites may be Panchkula, Ambala, Kalka, Hisar, Kaithal, Karnal etc.

IMPLEMENTATION SCHEDULE :

1.	Preparation of Project profile	One month
2	E M Registration & approval from Director of Ayurveda	One month
3	Financial/Loan from Banker or Financial Institutions	Two months
4	Power connection/Building construction	Six months
5	Machinery procurement & Trial run.	Two months
6	Recruitment of Staff & Labour	One month
7	Actual commercial production	One month

BASIS & PRESUMPTIONS :

The project has been drafted taking into account of the following aspects :

1.	No. of working shift in a day	One
2	Duration of shift in term of time	8 hours
3	Number of working days in a year	300
4	Working efficiency of the units	75%
5	Construction of building (built up are) will be in accordance with the provision laid down by Director of Ayurveda/As per GMP norms.	
6	The estimates are drawn from a production capacity generally considered techno-economically viable for a modern type of manufacturing unit.	
7	G.M.P. will be followed	
8	The wages of the Staff & Labour is taken as per the prevailing labour wages laws.	
9	The rate of interest has been shown as applicable.	
10	Plant & Machinery, Testing equipment & all other equipments used in manufacturing such type of products may also be employed in manufacturing all other similar type medicines.	
11	Although the unit is free from pollution & effluent discharge but still provision of exhaust fan may ensure the fresh environment.	

TECHNICAL ASPECTS

Definition & Method of Preparation :

1. Arishta & Asava :

Asavas and Arishtas are made by soaking the herb either in powder form or in the form of decoction (Kasaya) in a solution of sugar or jaggery, as the case may be, for a specific period of time, during which it undergoes a process of fermentation generating alcohol and facilitate the extraction of the active ingredients contained in the drugs. The alcohol so generated, also act as a preservative.

a) Arishta :

The drugs in the text are coarsely powdered and kasaya is prepared. The kasaya is strained and kept in a fermentation pot, sugar or honey according to the formula is dissolved, boiled and added. Drugs mentioned as praksepa dravyas are finely powdered and added. At the end, dhataki puspa, if included in the formula, should properly cleaned and added. The mouth of the pot, vessel or barrel is covered with an earthen lid and the edges sealed with clay smeared cloth in seven consecutive layers. The container is kept either in special room, in an underground cellar or in a heap of paddy, so as to ensure that for duration of fermentation, as far as possible, a constant temperature is maintained, since varying temperature may impede or accelerate the fermentation.

After the specified period, the lid is removed and the contents examined to ascertain whether the process of fermentation (sandhana) has been completed. The fluid is first decanted and then strained after two or three days. When the fine particles settle down, it is a strained and bottled.

b) Asava :

The required quantity of water, to which jaggery or sugar as prescribed in the formula is added, is boiled and cooled. This is poured into the fermentation pot, vessel or barrel. Fine powder of the drugs mentioned in the formula are added. The container is covered with a lid and the edges are sealed with clay smeared cloth wound in seven consecutive layers. The rest of the process is as in the case of Arista.

2. Rasayan Rasa or Rasa Yoga :

Ayurvedic medicine containing mineral drugs as main ingredients are called Rasa Rasayan or Rasa-Yoga. They are in pill form or in powder form. First minerals such as Abhraka. Drugs such as abhraka maksika, svarna, rajata, tamra, karmsya etc. are used only in bhasma form in these preparations. Drugs such as gandhaka, manahisila etc. are used in purified form. Where rasa and gandhaka are drugs, kajjali (Mixture of equal amount of sulphur & mercury) is

prepared first with these two and then only other drugs are added in small quantities and ground in the khalva itself and mixed well.

Bhavana with the prescribed svarasa, kvatha etc.; should be given to this for a prescribed period.

3. Goggula:

Ayurvedic medicines prepared from and exudate (Niryasa) obtained from the plant commiphora mukul, are known as Goggula. There are five different varieties of goggula in Ayurvedic shastra. But usually two varieties, mahisakasa and kanaka are preferred for medical preparation. Exudate in small pieces are taken in a piece of cloth and boiled in gomutra or Dugdha or Triphala kasaya until the exudate passes into the fluid through the cloth to the maximum. The fluid after filtering is boiled till it forms a mass. After drying the mass is formed into a paste by adding ghee till it becomes waxy.

4. Taila :

Taila are prepared by boiling prescribed kasayas (decoction) and kalkas of drugs in oils according to the formula prescribed in Ayurvedic formulary. In normal practice taila oil is used as basic oil for preparation of such Ayurvedic oils.

There are generally three essential components for the preparation of sneha (ghrta or taila) viz :

- i) drava (a liquid which may be one or more as kasava, svarasa, dugdha, mastu, etc.);
- ii) kaka (a fine paste of the drugs(s);
- iii) sneha dravya (ghrta, taila, etc.).

5. Parpati :

First kajjali is prepared with purified Mercury and Sulphur. Other drugs mentioned in the formula are added one by one and filtered by trituration in a khalva. The powder put in iron vessel and kept over fire in the sikatayantra. A shallow pit in fresh cow dung is made and a kadali leaf or an eranda leaf is spread over the pit. When the medicine melts and becomes liquid it is poured on the lead carefully. Another leaf is covered over it and fresh cow dung is spread and gently pressed. After it is allowed to cool the flakes of the medicine are removed and powdered. The other drugs as per Ayurvedic formulary are added and mixed well in grinder.

6. Lauha :

Lauha kapas are preparations of Loha Bhasma as main ingredient with other drugs. The other active ingredients are made to fine powder and mixed with Loha Bhasma.

The drugs are reduced to fine powder and mixed with loha bhasma. Bhavana is given with prescribed liquids, if mentioned.

7. Vati or Gutika :

Ghrita are preparations in which ghee is boiled with prescribed kasayas (Decoction) and kalkas of drugs according to formulation as per Ayurvedic formulary.

8. Avaleha Modak Paak :-

Avaleha or Lehya is a semi solid preparation of drugs. These are prepared by the addition of jaggery sugar or sugar candy and boiled with prescribed drug juices decoction. Honey, if required, is added when the preparation is cold and mixed well.

These preparations generally have (1) kasaya or other liquids, (2) jaggery, sugar or sugar candy, (3) powders or pulps of certain drugs; and (4) ghee, oil and honey. Jaggery, sugar or sugar candy is dissolved in the liquid and strained to remove the foreign particles. This solution is boiled over a moderate fire. When the paka (Phanita) is thready (tantumat) when pressed between two fingers or when it sinks in water without getting easily dissolved, it should be removed from the fire. Fine powders of drugs are then added in small quantities and stirred continuously and vigorously to form a homogenous mixture well. Honey, if mentioned is added when the preparation is cool and mixed well.

9. Churna :

Churna is a fine powder from drugs. All the herbs and other active ingredients are cleaned, dried and powdered together by mechanical means, to the fineness of at least 80 mesh.

Drugs mentioned in the Yoga are cleaned and dried properly. They are finely powdered and sieved. Where there are a number of drugs in a yoga, the drugs are separately powdered and sieved. Each one of them (powder) is weighed separately, and well mixed together. As some of the drugs contain more fibrous matter than others, this method of powdering and weighing them separately, according to the yoga and then mixing them together, is preferred separately, according to the yoga and then mixing them together, is preferred.

Energy Conservation :

Electricity may be conserved as follows :-

1. Use of high efficiency motors.
2. Down sizing the motor.
3. Use of soft starter-cum-Energy Saver.
4. Use of variable speed drives.
5. Use of on load Tapn changing transformers.
6. Use of automatic voltage regulators.

FINANCIAL OUTLAY

(A) PLANT & MACHINERY:-

S.No.	Description of Plant & Machinery	Qty.	Value (Rs.)
1.	Pulveriser with 7.5 Hp and 2.5 HP motor	1	60000.00
2.	Disintegrator with 7.5 Hp size with sieve of different mesh size	1	56000.00
3.	Wooden vessel for fermentation with lid, Cap. 50 ltrs	25	70000.00
4.	M.S. Vat cap. 750 kg.	1	50000.00
5.	Earthen Pots with lid for bhasma production cap. 2 kg.	12	40000.00
6.	Tableting machine	1	80000.00
7.	Bottle filling machine	1	15000.00
8.	Bottle Sealing Machine	1	10000.00
9.	S.S. mixing Vessel with stirrer Cap. 200 ltrs.	1	70000.00
10.	M.S. pastle & Motor	1	45000.00
11.	Water treatment/Distillation plant	1	10000.00
12.	Earthen Vatti	5	4000.00
13.	Weighing Scale 100Kg. Cap.	1	10000.00
14.	Weighing Scale 5 Kg. Cap.	1	5000.00
15.	Filtering unit fitted with paper & cloth	1	40000.00
16.	Cane Bamboobaskets, Glass jar big & small with stopper	25 each	45000.00
17.	S.S. vessel with stopper 5 ltrs.cap.	4	5000.00
	10 ltrs, cap.	2	10000.00
	100 ltrs. cap.	2	20000.00
18.	Hot Air oven with 24 trays 0.5 HP motor	1	60000.00
19.	Bottle washing & Drying machine	1 each	20000.00
20.	Aluminum containers for storage of powders/raw material	50	20000.00
21.	Firefighting and pollution control equipments	1	80000.00
22.	Testing equipments		30000.00
23.	Erection & electrification @ 10%		85000.00
24.	Total :		9,40,000.00

(B) FURNITURE, FIXTURE, ALMIRAH, COMPUTER, ETC. = Rs. 60,000

STAFF AND LABOUR (P.M)

S.No.	Designation	No.	Salary (Rs.)
1.	Manager cum Manufacturing Chemist	1	10000
2.	Analytical Chemist	1	7000
3.	Clerk cum Accountant	1	5000
4.	Skilled Worker	2	8000
5.	Unskilled Worker	3	9000
6.	Peon cum Chowkidar	1	4000
7.	Sales representative	1	8000
	Total :		51000
	Perquisite @ 15%		7650
	Total :		58650

RAW MATERIAL (P.M.) :

Raw materials is different type of herbal plants, mineral, sugar, honey, Bhasma etc are available indigenously and consumables including packaging materials like glass bottles, paper containers etc. is available in the Haryana and nearest states and it will be of estimated value of Rs. 2.5 lacs.

OTHER EXPENSES (P.M.)

Value (Rs.)

Utilities	
Power	4000
Wood/Coal	2000
Water	500
Rent	5000
Postage & stationery	500
Traveling & Transport Charge	2000
Advt. & Publicity	500
Repair & Maintenance	500
Insurance	500
Consumables store	500
Mics.	500
	500
Total:	Rs.17000

TOTAL RECURRING EXPENSES (P.M.) :

Raw Material	Rs.2,50000
Staff and labour	Rs.58650
Other expenses	Rs.17000
Total :	Rs.3,25,650

Fixed capital = Rs. 9,40,000/- + Rs. 60000/- = Rs.10,00000/-
Working Capital for three month = Rs. 3,25,650/- x 3 = Rs. 9,76,950/-
Total Capital Investment = Rs. 9,76,950/- + Rs.10,00000/- = **Rs. 19,76,950/-**

COST OF PRODUCTION (P.A.)

Recurring exp.	Rs. 39,07800/-
Depreciation on plant & M/c & 10%	Rs. 94000/-
Depreciation on furniture @ 25%	Rs. 15000/-
Interest on T.C.I @ 18%	Rs. 3,55,851/-
Total :	Rs. 43,72,651/-

TURN-OVER by sale of following products :

S. No.	Item	Qty.	Packing Pkt./Bottle	Rate in Rs.	Value in Rs.
1	ASHOKARISTHA	30000	750 ml Bottle	50/-	15,00000/-
2	LAKHIBILAS RAS	20000	10gms Bottle	50/-	10,00000/-
3	LAVANBHASKAR CHURNA	60000	100gms Pkt	20/-	12,00000/-
4	CHAYANPRAS	3000	1 Kg.Box	170/-	5,10,000/-
5	MRITSANJIVNI	10000	300ml Bottle	50/-	5,00000/-
6	GANDHKADI MAHLAM	18000	10gms Boxes	50/-	9,00000/-
7	SITAPALADI CHURN	3000	100gms Boxes	50/-	1,50,000/-
				Total :	57,60,000/-

Profit per year = Rs. 57,60,000/- - Rs. 43,72,651/- = **Rs.13,87,349/-**

Less 10% discount to Stockiest, Dealers etc. = Rs. 13,87,349/- – Rs.1,38,734/-

= Rs. 12,48,615/-

Net profit / year = **Rs. 12,48,615/-**

%age profit on Sale = $\frac{\text{Rs. 12,48,615/-} \times 100}{\text{Rs. 57,60,000/-}}$ = 21.67%

%age profit on Total Capital Investment = $\frac{\text{Rs. 12,48,615/-} \times 100}{\text{Rs. 19,76,950/-}}$ = 63.15%

BREAK EVEN POINT :**Fixed Cost:**

40% of Salary & Wages	Rs. 2,81,520/-
40% other expenses	Rs. 81,600/-
Total Depreciation on Plant & M/c, Furniture etc.	Rs. 1,09000/-
Interest on Total Capital Investment @ 18%	Rs. 3,55,851/-
Total :	Rs. 8,27,971/-

$$\text{B.E.P.} = \frac{\text{FC} \times 100}{\text{FC} + \text{Profit}} = \frac{\text{Rs. 8,27,971/-} \times 100}{\text{Rs.8,27,971/-} + \text{Rs. 12,48.615/-}} = 39.87\%$$

ADDRESSES OF RAW MATERIAL SUPPLIERS:

1.	M/s Bridhishand Keshab Deo, Gancy Bazar, Guwahati-1
2.	M/s Debendra Nath Dutt & Sons, Debendra Bhavan, 13 Cotton Street, Calcutta-1
3.	Co-operative Drug Factory of Ranikhet, Ranikhet (U.P.)
4.	Local Dealer in herbs. Medical plant etc.

ADDRESSES OF MACHINERY & EQUIPMENT SUPPLIERS:-

1.	M/s Techno Fill Pvt. Ltd., BP 49, Neelam Bata Road, Faribadbad-121001
2.	M/s Strip India 16 Mandal Temple Road, P-Block, New Alipore, Calcutta-53
3.	M/s Cadmach Machinery Co. Pvt. Ltd., P.O. Box No. 9007, Naningar Ahmedabad-380008
4.	M/s Modern Mechanical Works, 1501, Qsim Jon Street, Delhi-6
5.	M/s Associated Instrument Manufacturing Pvt. Ltd., 26, Asaf Ali Road, New Delhi-6
6.	M/s Pharmaceutical Machinery Manufacturing Works, Laxmi Nagar, Indl. Estate, Indore-4
7.	M/s Emkay (India) Trading Co., 286, Garhiaya, Jama Masjid, New Delhi-6
