

Project Profile: Ayurvedic Medicine



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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, steam. 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. Furthermore, 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 sthe 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

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.

1. 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.

2. 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.

3. 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.).

4. 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 kshlbs. The powder put in iron vessel and kept over fire in he 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.

5. 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.

6. 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.

7. 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 homogeneous mixture well. Honey, if mentioned, is added when the preparation is cool and mixed well.

8. 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.

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.

List of Machinery

S.No.	Description of Plant & Machinery	Qty.	Value (Rs.)
1.	Pulveriser with 7.5 Hp and 2.5 HP motor	1	60,000
2.	Disintegrator with 7.5 Hp size with sieve of different mesh size	1	56,000
3.	Wooden vessel for fermentation with lid, Cap. 50 ltrs	25	70,000
4.	M.S. Vat cap. 750 kg.	1	50,000
5.	Earthen Pots with lid for bhasma production cap. 2 kg.	12	40,000
6.	Tableting machine	1	80,000
7.	Bottle filling machine	1	15,000
8.	Bottle sealing machine	1	10,000
9.	S.S. mixing Vessel with stirrer Cap. 200 ltrs.	1	70,000
10.	M.S. pastle & Motor	1	45,000
11.	Water treatment/Distillation plant	1	10,000
12.	Earthen vatti	5	4,000
13.	Weighing scale 100kg. Cap.	1	10,000
14.	Weighing scale 5 kg. Cap.	1	5,000
15.	Filtering unit fitted with paper & cloth	1	40,000
16.	Cane Bamboobaskets, Glass jar big & small with stopper	25 each	45,000

Manpower Requirement

S.No.	Designation	No.	Salary (Rs.)
1.	Manager cum Manufacturing Chemist	1	10,500
2.	Analytical Chemist	1	10,000
3.	Clerk cum Accountant	1	10,000
4.	Skilled Worker	1	9,000
5.	Unskilled Worker	1	8,000
6.	Peon cum Chowkidar	1	7,000
7.	Sales representative	1	18,000
Total			72,500

Cost of Project

The cost of project as per market rate of factory building, machinery, and miscellaneous items, preliminary and pre-operative expenses works out as under:

Sr. No.	Particulars	Amount
1	Land(rent)	30,000
2	Plant & Machinery	6,10,000
3	Furniture & Electrical Installations	90,000
4	Miscellaneous	40,000
Total		7,70,000

Means of Finance

Based on the present norms of bank, means of finance is worked out as under:

Sr. No.	Particulars	Amount
1	Promoter's contribution	2,06,500
2	Bank Finance	5,63,500
Total		7,70,000

Break-Even Analysis

Sr. No.	Particulars	Details
1	Fixed Investment (A)	770000
2	Loan	563500
3	Interest Rate @7.5% on Loan (B)	42262.5
4	Capital Investment	206500
5	Depreciation @10% on Capital investment (C)	20650
6	Total Fixed cost (D = A+B+C)	832913
7	Variable Cost (E)	15000
8	Manpower cost (F)	72500
9	Total Variable cost (G = E+F)	87500
10	Number of Units Sold/Month (H)	2000
11	Average Variable cost (I = G/H)	43.75
12	Selling price per unit (J)	150
13	Contribution margin (K = J-I)	106.25
14	Beak Even Point in Units (D/K)	7839

Assumptions

- Interest rate is assumed at the rate of 7.5% p.a.
- Depreciation on capital investment i.e. machinery would be 10% p.a.
- Unit can produce 4000 units of packets p.m. at full capacity then it would be at breakeven when they will sell 7839 units of ayurvedic medicine, average price has been taken Rs150 as product prices varies.
- Variable cost comprises of the raw material price p.m. and electricity and other administrative/utility expenses.

Statutory/Government Approvals

The Ministry of Food Processing Industries has been operating several plan schemes for the development of processed food sector in the country during the 10th Plan. One of the schemes relates to the Technology Up-gradation/ Establishment/ Modernization of food processing industries.

The Indian food processing industry is regulated by several laws which govern the aspects of sanitation, licensing and other necessary permits that are required to start up and run a food business. The legislation that dealt with food safety in India was the Prevention of Food Adulteration Act, 1954 (hereinafter referred to as "PFA"). The PFA had been in place for over five decades and there was a need for change due to varied reasons which include the changing requirements of our food industry. The act brought into force in place of the PFA is the Food Safety and Standards Act, 2006 (hereinafter referred to as "FSSA") that overrides all other food related laws.

FSSA initiates harmonization of India's food regulations as per international standards. It establishes a new national regulatory body, the Food Safety and Standards Authority of India (hereinafter referred to as "FSSAI"), to develop science based standards for food and to regulate and monitor the manufacture, processing, storage, distribution, sale and import of food so as to ensure the availability of safe and wholesome food for human consumption. Entrepreneur may contact State Pollution Control Board where ever it is applicable.

All food imports will therefore be subject to the provisions of the FSSA and rules and regulations which as notified by the Government on 5th of August 2011 will be applicable.

Key Regulations of FSSA

- A. Packaging and Labeling
- B. Signage and Customer Notices
- C. Licensing Registration and Health and Sanitary Permits

Training Centers/Courses

For food processing industry training and short term courses are available at Indian Institute of Food Processing Technology, Thanjavur, Tamil Nadu and Central Food Technological Institute, Mysore, Karnataka and Ground Nut Research Centre, Junagarh, Gujarat.

Udyamimitra portal ([ink: www.udyamimitra.in](http://www.udyamimitra.in)) can also be accessed for handholding services viz. application filling / project report preparation, EDP, financial Training, Skill Development, mentoring etc.

Entrepreneurship development programs help to run businesses successfully and are available from Institutes like Entrepreneurship Development Institute of India (EDII) and its affiliates all over India.