

MEDICATED GHEE- VACHADI GHRITA [VG]

1. INTRODUCTION

In India, alternate medicinal system, commonly referred to as "Indian system of Medicine and Homeopathy" (ISM&H) includes

- Ayurveda
- Siddha
- Unani and
- Homeopathy

This particular project profile focuses is mainly on **Vachadi Ghrita- Medicated Ghee**

Vachadi Ghrita [VG] is a medicated ghee (a clarified butter) Ayurvedic formulation, recommended to improve cognition.

VG has these ingredients as follows-*Goghrita* (Cow ghee), *Vacha* (*Acorus calamus*), *Guduchi* (*Tinospora cordifolia*), *Shankhapushpi* (*Convolvulus pluricaulis*), *Haritaki* (*Terminalia chebula*), *Shati* (*Hedychium spicatum*), *Vidang* (*Embelia ribes*), *Shunthi* (*Zingiber officinale*) and *Apamarg* (*Achyranthes aspera*).

The term "Ayurveda" combines the Sanskrit words *ayur* (life) and *veda* (science or knowledge). It is one of the traditional medicinal systems, with an established history of many centuries. It is based on the belief that health and wellness depend on a delicate balance between the mind, body, and spirit.

The primary focus of Ayurvedic medicine is to promote good health and prevent

Illness, rather than fight disease. Other traditional systems include Siddha, Unani, Iranian, Islamic, Vietnamese, Chinese, Acupuncture, Muti, Ifá, African and other treatments all over the globe. When adopted outside of its traditional culture, traditional medicine is often called complementary and alternative medicine (CAM)

There are three kinds of ingredients used in Ayurvedic medicines:

1. Herbal
2. Mineral and
3. Animal

The herbal medicines dominate the practice of Ayurveda. The worldwide use of herbal products decreased in the 20th century as these were believed to be less profitable than synthetic drugs and medicines. Post 1960, increasing concerns over the side effects of the synthetic drugs and medicines led to an increase in the demand for traditional alternative medicines across the world. Herbal medicine is still the mainstay of about 60% of the world population, mainly in developing countries for their primary healthcare needs.

This potential also needs to be tapped since our country has a lot of medicinal plants, plants with essential oils and the demand in the overseas markets for its concentrates is growing fast. Since the flavourists and perfume experts are facing the challenging tasks of creating and developing complex compositions to meet the present and future consumer demand, it is also necessary to set up world standard research and development facilities in this sector.

The proposed manufacturing facility for Ayurveda Churna would be a GMP certified facility, licensed by the State Drug controlling authority. The facility will focus on “new generation medicines” instead of classical Ayurvedic products.

2. PRODUCT AND ITS APPLICATION

The use of **Vachadi Ghrita- Medicated Ghee** and its ingredients has been well defined in ancient Ayurvedic texts like Charak samhita, Ashtang hridaya, Bharat Bhaishajya Ratnakar and Bhav prakash bighantu etc.

The ingredients of VG have been assessed for various activities. *Vacha* showed Antidepressant potential, *Guduchi* showed anti oxidant activity. Haritaki and Shankhapushpi have been experimentally assessed for Anti-stress, anti-anxiety, and memory enhancer activities. *Vidanga* showed Anti depressant activity and *Shunthi* showed nootropic-neuroprotective activity. Antiepileptic, anti oxidant, anti-depressant actions of *Apamarga* has been confirmed in experimental studies. Anti oxidant and nootropic activity of *Shati* has been proved.

Ingredients of VG maximally have action on CNS as Nootroipc, Antidepressant, Anticonvulsant, Antiepileptic, Antipsychotic and antioxidant etc.



3. DESIRED QUALIFICATION FOR PROMOTER

The promoter should ideally be having formal qualifications in the field of Ayurveda (Bachelor or Diploma). A formal qualification in Naturopathy may also do. Further he / she should have experience of working in a unit manufacturing Ayurvedic medicines

4. INDUSTRY OUTLOOK/TREND

The Indian herbal medicines market includes OTC, ethical and classical formulations and home remedies of Ayurveda, unani, homeopathy and siddha systems of medicines _ Over the period of 2008 and 2013, the herbal medicine market in the country grew at a CAGR of 26.7%¹. The growth of herbal medicines reflects the shifting trend of consumers from allopathic to herbal medicines Off late, with rising awareness on different types of cholesterol and demand for ghee has seen an upsurge among urban

consumers, especially cow ghee has been clocking a robust growth rate, almost double of that of buffalo ghee

5. MARKET POTENTIAL AND MARKETING ISSUES, IF ANY

Medicated Ghee is one of the important and well accepted Herbal / Ayurvedic medicines.

It is one of the most exalted substances used in Ayurveda and is purifying, nourishing, auspicious and aiding in longevity. It has the special quality of enhancing the effects of anything that is prepared with it. Medicated ghees combine ghee and herbs to create a powerful healing synergy.

An article by Sohini Das in Business Standard (May 21, 2016) has interesting and relevant view point and data on this product.

“Ghee is not such a bad thing to consume after all, but the health conscious Indian consumer wants more. Enter organic ghee. This phrase basically means ghee churned out of milk derived from 'stress free' or 'happier' cows that are put on organic diet. Players in this niche category have seen huge surge in demand, with some of them clocking as much as 400 per cent growth in sales.

Off late, with rising awareness on different types of cholesterol and demand for ghee has seen an upsurge among urban consumers, especially cow ghee has been clocking a robust growth rate, almost double of that of buffalo ghee. Cow ghee is, however, just about 10 per cent of the Rs 10,000 crore Indian ghee markets “

As such, the Indian herbal market consists of herbal products such as herbal hair care, herbal skin care & other herbal personal care products, as well as herbal medicines _
The Indian herbal medicines market includes OTC, ethical and classical formulations and home remedies of Ayurveda, unani, homeopathy and siddha systems of medicines _
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CAGR of 26.7%¹. The growth of herbal medicines reflects the shifting trend of consumers from allopathic to herbal medicines

In India, there are about 20 well-recognized manufactures of herbal drugs and 140 medium or small-scale manufactures. In addition, thousands of vaidyas have their own miniature manufacturing facilities. About 1200 licensed small manufactures in India are on record. The estimated current annual production of herbal drugs is around Rs. 100 crores. This value is low as compared to the production allopathic pharmaceuticals, which is around Rs. 800 crores. The demand for herbal medicines is increasing and it is estimated that the production of herbal drug may be around Rs. 4000 crores in the year 2010 AD. There are 1650 herbal formulation in Indian market and number of major plants involved in their formulation is 540.

Medicinal plants have been a major source of cure of human diseases since time immemorial. Today, one fourth of the world population depends on traditional medicines. Despite the introduction of antibiotics since the 1940's, even 80 per cent of the population today relies on indigenous medicinal plants and the drugs. It is estimated that the global traditional medicine market is growing at the rate of 7-15 per cent annually. The medicinal plant value is about Rs.5000 crores in India and it is estimated that the country exports about Rs.550 crore worth of herbal drugs but with the rich and diverse botanical resources in our country, this is not an impressive export performance considering the worldwide herbal market worth US 60 billion dollars.

In order to withstand competition in the global market, it is necessary to create a brand image, especially in cosmeceuticals and natural products. Craze among the people for a slim body, fair skin as fashion is growing considerably. Out of the Rs.12, 000 crores industry, Rs.700 crores belongs to skincare products and Rs.100 crores for general cosmetics. Over and above current herbal drugs used in cardio vascular is 27%; respiratory 15.3%, digestive 14.4%; hypnotics and sedatives 9.3%; miscellaneous 12%. The perfumery industry is also around Rs. 700 crores.

The Indian herbal industry is likely to double from present Rs. 7,500 crore to Rs. 15,000 crore by 2015, according to a new study published on Friday.

The study, brought out by the Associated Chambers of Commerce and Industry (ASSOCHAM) has viewed that the domestic herbal industry will grow rapidly in the coming years and by 2015, it is expected that the size of the domestic market will rise to Rs. 15,000 crore, reflecting a compound growth rate of over 20 percent.

Releasing the study, ASSOCHAM Secretary General, D.S Rawat said that ideally, the niche market that India can focus on include Ayurvedic Medicines and Dietary Supplements (including health drinks), extracts, Oils and other derivatives, skin care and beauty aids.

According to the study, the Indian domestic market can be broadly segmented into two categories. The first one will cover raw materials required by the industrial units and direct consumption for household remedies, whereas the second category will cover ready to use finished medicines, health supplements etc.

The study has found that there is a strong demand for raw stock which mainly comprises Amla, Isabgol, Senna, Henna, Ashwagandha, Aloe-vera and Myrobalans (Hartaki), which accounts for over 75% of the raw materials used in Ayurvedic preparations. In terms of volume, it is estimated that current consumption of the key raw ingredients (as mentioned above) totals approximately 400,000-500,000 MT.

With value addition, the market for herbal based products is around Rs.7, 500 crores, which is roughly the current size of the Indian market, it is stated.

The study points out that globally the dependence on herbal medicines, dietary supplements and skin and beauty aids will continue to gain greater share in view of the awareness and comfort level which is akin to the use of organic food products.

The ASSOCHAM study, however, is of the view out that India's share in the global herbal market is very meagre considering the country's rich source of medicinal plants and traditional treasure of knowledge in this area.

A quick estimate of the potential reveals that India can generate raw stock of around Rs. 300 billion and easily achieve around Rs. 150 billion value added products. Thus, India is hardly able to exploit less than 50% of its potential, the study adds.

The Associated Chambers of Commerce and Industry of India (ASSOCHAM) has projected that the market size of herbal industry which is currently estimated at Rs. 7,500 crores (Rs. 75 billion) will double to levels at Rs. 15,000 crore by 2015 since this industry would be growing at a compounded annual growth rate of over 20% henceforth.

In a study brought out by ASSOCHAM on Herbal Industry and Global Market 2015, it is pointed out that India's rich source of medicinal plants and traditional treasure of knowledge in this area, its share at present is considered very meagre. A quick estimate of the potential reveals that India can generate raw stock of around Rs. 300 billion and easily achieve around Rs.150 billion value added products. Thus, India is hardly able to exploit less than 50% of its potential. Interestingly both raw materials (herbs) and herbal products have ready market globally.

Brahmi Ghrutham is a **ayurvedic medicated ghee** which improves intellect, memory, speech and other brain functions. Ayurvedic text reference:

Ashtamgahrudayam Indications: Insanity Epilepsy Hysteria Mental retardation
Impaired memory Ingredients: Brahmi (Baopa monnieri) Samkhapushpi (Clitoria tenatea) Jathi (Jasminum Grandiflorum) Thrivruth (Operculina turpethum) Vidangam (Emelia ribes) Dosage: Take ghruthams, generally after food.,

Triphala Gruitham: (Ashtamgahrudayam) - For all Types of disorders related to eyes. Especially for Cataract. Ghruthams are preparations in which Ground Drugs are bailed with Ghee and the prescribed Liquids according to the formula. Through this process we

are ensuring the absorption of active therapeutic principles of the ingredients and preserving in fat medium. Indications: Eye disorders Cataract Dosage: 10-15 ml once or twice daily after food

Experts feel that with the rise of the health conscious, there is demand for organic food, and Ghee as a category is no exception.

6. RAW MATERIAL REQUIREMENTS

A large number of herbs, medicinal plant extracts, etc would be required for this project. This is because one particular formulation would have about 8 to 10 active ingredients. Raw materials is different type of herbal plants (Brahmi, Triphala, Shatavari , etc.), mineral, sugar, honey, Bhasma etc are available indigenously and consumables including packaging materials like glass bottles, paper containers etc. is available

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. States like Gujarat also have large biodiversity and availability of medicinal plants.

7. MANUFACTURING PROCESS

Medicated Ghee

- Place unsalted butter in a good sized, heavy bottomed pan. 2 Lbs of butter will get you 1 Qt of Ghee.
- Heat gently until butter melts, and then turns heat up to medium.
- When boiling turn down to a low heat again. Let it simmer gently. Stir from time to time.
- You are evaporating out all the water and drying the milk solids—so only the refined butter-fat remains. Do not cover the pot or you will interfere with this process.
- When it is nearly done it will start to smell 'pop-corny' and turn golden. You will see the milk solids will be granular or clotted together and slightly browned.
- Remove from heat at this point and cool slightly.

- Pour through a cloth-lined sieve or fine strainer into a dry jar.
- There will be milk solids at the bottom of the pan. Some people discard this. In India they add sweetener and spices for a delicious treat.
- Ghee has a long shelf life and does not need to be kept in the fridge. Just make sure that you don't get any moisture into the jar by scooping with a wet spoon etc.

Use of Modern technology

It is also necessary to integrate modern knowledge with traditional knowledge. The drugs and products of the industry are working on the scientifically defined techniques and explained with modern biological and chemical definitions and tools, and that alone will give a therapeutically active herbal original drug available for health care worldwide.

Quality Control and Standards

At present there is no pharmacopeial standard on each of the active ingredients of Ayurvedic medicine like allopathic medicine. For standardization and quality control of Ayurvedic drugs, various steps can be followed like physical description, physical tests, pharmacognosied techniques etc, to ascertain the species of plant and study their pharmacognostic character for the purpose of identification detection and analyzing the crude drug.

Generally quality of Ayurvedic products is fully dependent on the quality of raw materials and process of manufacture. The quality control process of some Ayurvedic formulations can be contained from 'Pharmacopeias Laboratory of India Medicine, near ALTC, Ghaziabad (U.P)'. The products are to be manufactured as per Indian system of medicines of Ministry of Health.

Schedule "T" is to be followed as per Food & Drugs Administration norms.

8. MANPOWER REQUIREMENTS

| Sr. No. | Designation | Number | Apprx. Salary (Rs. per month) |
|---------|----------------------|--------|-----------------------------------|
| 1 | Analytical Chemist | 1 | 7000 |
| 2 | Skilled Worker | 2 | 10000 |
| 3 | Unskilled Worker | 2 | 9000 |
| 4 | Clerk cum Accountant | 1 | 5000 |
| | Sub Total | | 31000 |
| | Perks @ 15 % | | 4650 |
| | Total | | 35650/- Say 36000/- |

9. IMPLEMENTATION SCHEDULE

| Sr. No | Activity | Time |
|--------|---|------------------|
| 1 | Preparation of Project report | Six weeks |
| 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 | One month |
| 5 | Machinery procurement & Trial run. | Two months |
| 6 | Recruitment of Staff & Labour | One month |
| 7 | Actual commercial production | One month |

10. COST OF PROJECT

The total cost of project is estimated as below:

| Sr. No | Component | Particulars | Cost (Rs. Lacs) |
|--------|----------------------|--------------------------|---------------------|
| 1 | Land | Own | |
| 2 | Building | 100 Sq. mtrs @ Rs. 2000/ | 2.00 |
| 3 | Plant & Machinery | As per list | 4.00 |
| 4 | Other Assets | - | 0.30 |
| 5 | P & P Expenses | - | 0.20 |
| 6 | Contingencies @ 10 % | | 0.60 |
| 7 | WC Margin | As per separate table | 0.75 |
| | | Total | 7.85 |

11. MEANS OF FINANCE

- Term Loan : Rs.6.00 lacs
- Promoter own contribution : Rs. 1.85 lacs

12. WORKING CAPITAL CALCULATION

| Particulars | Duration | Estimated cost (Rs. Lacs) |
|-------------------------------------|----------|-------------------------------|
| Raw materials/ Packing materials | 1 month | 1.00 |
| Working expenses | 1 month | 0.50 |
| Finished goods | 15 days | 0.60 |
| Receivable | 7 days | 0.40 |
| | Total | 2.50 |

13. LIST OF MACHINERY REQUIRED & SOURCES

| Sr. no. | Machine | Number | Approx. Cost (Rs. Lakhs) |
|---------|---|--------|------------------------------|
| 1 | Heavy bottomed Pan | 2 | 1.20 |
| 2 | Volumetric filling machine | 2 | 0.80 |
| 3 | Bottle washing machine | 1 | 0.30 |
| 4 | Bottle drying machine | 1 | 0.20 |
| 5 | Strainer / Sieve of appropriate mesh size | 2 | 0.50 |
| 6 | Other miscellaneous equipments | - | 0.30 |
| | QC and Testing equipments | - | 0.70 |
| | | Total | 4.00 |

Indicative Sources:

- Pharmatech Engineers,
Indore
Madhya Pradesh
- Ambica Machineries,
Vatva, Ahmedabad
Gujarat
- ARV Engineering,
Thane
Maharashtra

14. PROFITABILITY CALCULATIONS

At 100 % capacity utilisation (indicative):

- Installed Capacity : 35000 bottles
- Each @ Rs. 40.00
- Total Sales turnover: 14,00,000/-

- Cost of production & other expenses: 9.80 lacs
- Profit : Rs. 4.20 lacs

Profitability projections

| Particulars | YEAR 1 | YEAR 2 | YEAR 3 | YEAR 4 | YEAR 5 |
|--------------------------|---------------|---------------|---------------|---------------|---------------|
| Capacity utilisation (%) | 60 | 75 | 80 | 80 | 80 |
| Sales | 8.40 | 9.80 | 11.20 | 11.20 | 11.20 |
| Expenses | 5.90 | 6.90 | 7.80 | 7.80 | 7.80 |
| Gross profit | 2.50 | 2.90 | 3.40 | 3.40 | 3.40 |
| Profit to Sales (%) | 29.00 % | 29.50 % | 30.00 % | 30.00 % | 30.00 % |

Note: The profitability basis and projections are indicative and on approximate basis only.

15. BREAKEVEN ANALYSES

$$FC \times 100: 15.00 \times 100 = 1500$$

$$FC + Profit : 15.00 + 16.00 = 31$$

$$BEP = 46.30 \%$$

16. STATUTORY/ GOVERNMENT APPROVALS

Generally quality of Ayurvedic products is fully dependent on the quality of raw materials and process of manufacture. The quality control process of some Ayurvedic formulations can be contained from 'Pharmacopica Laboratory of India Medicine, near ALTC, Ghaziabad (U.P)'. The products are to be manufactured as per Indian system of medicines of Ministry of Health. Schedule "T" is to be followed as per Food & Drugs Administration norms. MSME & GST registration, IEC Code for Export of end products and local authority clearance may be required for Shops and Establishment, for Fire and Safety requirement and registration for ESI, PF and Labour laws may be required if applicable. And Approval from Pollution Control Board.

17. BACKWARD AND FORWARD INTEGRATION

As forward integration, Entrepreneur may think of going for the production of newer dosage forms from the Ghee including sweets

18. TRAINING CENTERS/COURSES

For Ayurvedic & allied industry training and short term courses may be availed from the Institutions of Aurvedic Research & Education in respective states. Also EDP centers. Udyamimitra portal (link : www.udyamimitra.in) can also be accessed for handholding services viz. application filling / project report preparation, EDP, financial Training, Skill Development, mentoring etc

Disclaimer:

Only few machine manufacturers are mentioned in the profile, although many machine manufacturers are available in the market. The addresses given for machinery manufacturers have been taken from reliable sources, to the best of knowledge and contacts. However, no responsibility is admitted, in case any inadvertent error or incorrectness is noticed therein. Further the same have been given by way of information only and do not carry any recommendation.