Profile No.: 63 **NIC Code: 20236**

HAIR DYE

1. INTRODUCTION:

Hair coloring, or hair dyeing, is the practice of changing the hair color. The main reasons for this are cosmetic: to cover gray or white hair, to change to a color regarded as more fashionable or desirable, to restore the original hair color after it has been discolor by hairdressing processes or sun bleaching. Hair coloring can be done professionally by a hairdresser or independently at home. Today, hair coloring is very popular, with over 55% women dyeing their hair. At home coloring in the world reached more than 30 billion US $ in 2011 and is expected to raise to 32 US $ billion by 2016. Recently Indian herbal Hair Dye has good market scope.

2. PRODUCT & ITS APPLICATION:

The dyeing of hair is an ancient art that involves treatment of the hair with various chemical compounds. In ancient times, the dyes were obtained from plants. Some of the most well-known are henna (Lawsonia inermis), indigo, *Cassia obovata*, senna, turmeric and amla. Others include katam, black walnut hulls, red ochre and leeks. In the 1661 book Eighteen Books of the Secrets of Art & Nature, various methods of coloring hair black, gold, green, red, yellow, and white are explained. The development of synthetic dyes for hair is traced to the 1860s discovery of the reactivity of para- phenylenediamine (PPD) with air. Eugene Schueller, the founder of L'Oréal, is recognized for creating the first synthetic hair dye in 1907. In 1947 the German cosmetics firm Schwarzkopf launched the first home color product, "Poly Color". Hair dyeing is now a multi-billion-dollar industry that involves the use of both plant-derived and synthetic dyes. Henna is an orange dye commonly used as a deposit-only hair color whose active component, lawsone, binds to keratin. It is therefore considered semi-permanent to permanent, depending on a person's hair type. Most people

will achieve a permanent color from henna, especially after the second dye. With repeated use the orange color builds up into red and then auburn. While "natural" henna is generally a red color, variations exist. These variations usually contain ingredients from other plants and even synthetic dyes. Natural dye from a plant (Indigofera tinctoria, suffructicosa, or arrecta) that can be added to henna or layered on top of it to create brown to black colors in the hair. Henna is orange, and indigo is blue, so as complementaries on a standard color wheel, the two colors' combined effect is to create brown tones. Like henna, indigo may fade after one application, but it becomes permanent on the hair with repeated use. Using a plant-based color such as henna can cause problems later when trying to do a perm or permanent hair color. Some store-bought henna contains metallic salts which reacts to hydrogen peroxide that is used in hair lightening. This may lead to unpredictable results, such as green or blue tones in the hair. Henna is a healthy way to color hair, as long as no metallic salts are used.

3. DESIRED QUALIFICATIONS FOR PROMOTER:

Graduate in any discipline, preferably science.

4. MARKET POTENTIAL AND MARKETING ISSUES, IF ANY:

There is more recognition for herbal products in the country now than the past few decades. This herbal concept is gaining ground and attracting attention worldwide. There is more and more scientific research being conducted in our country for treatment of various skin and hair problems through herbal therapy which is not having side effects on skin and hair, thus been recognized world over. Thus herbal products are becoming popular day-by-day and demand for its usage is increasing not only in the country but also worldwide, the inherent quality of herbal treatment of having negligible side/ after effects has made great potential for its production. A large number of medicinal plants, herbs, shrubs etc. are available in our country in the hilly / forest regions.

In order to boost the production of herbal products, Government of India has also set up a board namely Indian System of Medicine and Homeopathy to encourage production of

herbal products especially in the regions where basic raw materials are available in plenty. As the side effects of cosmetics and other chemical based product is increasing day by day. It gives an indication that there are some harmful chemical based ingredients, which are harmful for our body. Therefore, to get remedy for all above problems only one solution is there and i.e. using of herbal products instead of others. As the demand of herbal products is increasing day by day and you can sell your products in general market of the country including this type of products can also be supplied to the Government Store Department /canteen for further distribution among the employees of Defence, Railways and other Government Departments.

5. RAW MATERIAL REQUIREMENTS:

Hair dye is one of the oldest known beauty preparations, and was used by ancient cultures in many parts of the world. Records of ancient Egyptians, Greeks, Hebrews, Persians, Chinese, and early Hindu peoples all mention the use of hair colorings. Early hair dyes were made from plants, metallic compounds, or a mixture of the two. Rock alum, quicklime, and wood ash were used for bleaching hair in Roman times, and herbal preparations included mullein, birch bark, saffron, myrrh, and turmeric. Henna was known in many parts of the world; it produces a reddish dye. Many different plant extracts were used for hair dye in Europe and Asia before the advent of modern dyes. Indigo, known primarily as a fabric dye, could be combined with henna to make light brown to black shades of hair dye. An extract of the flowers of the chamomile plant was long used to lighten hair, and this is still used in many modern hair preparations. The bark, leaves, or nutshells of many trees were used for hair dyes. Wood from the brazil wood tree yielded brown hair dyes, and another hair dye known in antiquity as fustic was derived from a tree similar to the mulberry. Other dyes were produced from walnut leaves or nut husks, and from the galls, a species of oak trees. Some of these plant-derived dyes were mixed with metals such as copper and iron, to produce more lasting or richer shades. The golden red hair captured by many Renaissance painters was artificially produced by some women. The Italian recipe was to comb a solution of rock alum, black sulphur, and honey through the hair and then let the hair dry in sunlight. Other hair dyes, dating from the sixteenth century, were preparations of lead, quicklime, and salt,

or silver nitrate in rose water. Another early method of coloring hair was to apply powder. Pure white powder for hair or wigs was the mark of aristocratic dress in Europe during the seventeenth and eighteenth centuries. White powder was made of wheat starch or potato starch, sometimes mixed with plaster of Paris, flour, chalk, or burnt alabaster. Similarly colored powders were sometimes used as well. These were made by adding natural pigments such as burnt sienna or umber to white powder to make brown, and India ink was sometimes used to make black powder. In Biblical times, people used powdered gold on their hair. The use of powdered gold and silver returned briefly as a fad in Europe among the wealthy in the mid-nineteenth century. Other hair colorant were blocks similar to crayons made with wax, soap, and pigments. These could be wetted and rubbed on the hair, or applied with a wet brush. However the project , we will require a standard formula for manufacturing different type of Hair Dye. One can select the raw materials as decided.

6. MANUFACTURING PROCESS:

There are so many types of herbal hair dye, in form of powder, creams and oil or liquid mix are available in the market. The manufacturing process of each product is different. However, for the manufacture of powder, cream, oil or liquid , the formulation of specific raw material and its quality are tested first and accordingly are mixed with required conditions, like, temperature, pressure and aqueducts status. e.g. Bee-Wax. Paraffin's, oils in alkali type material is heated at appropriate temperature to form creamy base. The base so formed can be added aloe Vera some emulsifying preservative color perfume and other stabilizing agent can be added in the last of manufacturing process. For preparation of herbal powder all the herbs can be grinded into fine powder with the help of pulveriser and it can be diluted with the help of fuller earth/ masoor ki dal and other ingredients. All the ingredients are mixed together in a mixer and packed in desired size packs.

7. MANPOWER REQUIREMENT:

The enterprise requires 6 employees as detailed below**:**

Sr. No.	Designation of Employees	Monthly Salary ₹	Number of employees required				
			Year-1	Year-2	Year-3	Year-4	Year-5
1	Chemist @ 12000	12000.00	1	1	1	1	1
2	Skilled workers @ 8000	24000.00	3	3	3	4	4
3	Manager @ 15000	15000.00	1	1	1	1	1
4	Accounts/Sales Asst @12500	12500.00	1	1	1	1	1
5	Office Boy @ 9000	9000.00	1	1	1	1	1
	Total	72500.00	7	7	7	8	8

8. IMPLEMENTATION SCHEDULE:

The project can be implemented in 3 months' time as detailed below:

Sr. No.	Activity	Time Required *(in months)*
1	Acquisition of premises	1.00
2	Construction (if applicable)	1.00
3	Procurement & installation of Plant & Machinery	2.00
4	Arrangement of Finance	2.00
5	Recruitment of required manpower	1.00
	Total time required *(some activities shall run concurrently)*	3.00

9. COST OF PROJECT:

The project shall cost ₹ 25.30 lacs as detailed below:

Sr. No.	Particulars	₹ in Lacs
1	Land	2.00
2	Building	5.00
3	Plant & Machinery	7.00
4	Furniture, Electrical Installations	1.00
5	Other Assets including Preliminary / Pre-operative expenses	0.70
6	Working Capital	9.60
	Total	**25.30**

10. MEANS OF FINANCE

The proposed funding pattern is as under:

Sr. No.	Particulars	₹ in Lacs
1	Promoter's contribution	6.33
2	Bank Finance	18.98
	Total	**25.30**

11. WORKING CAPITAL CALCULATION:

The project requires working capital of ₹ 9.60 lacs as detailed below:

Sr. No.	Particulars	Gross Amt	Margin %	Margin Amt	Bank Finance
1	Inventories	4.80	0.25	1.20	3.60
2	Receivables	2.40	0.25	0.60	1.80
3	Overheads	2.40	100%	2.40	0.00
4	Creditors	-		0.00	0.00
	Total	9.60		4.20	5.40

12. LIST OF MACHINERY REQUIRED:

Sr. No.	Particulars	UOM	Qtty	Rate (₹)	Value (₹ in Lacs)
	Plant & Machinery / equipments				
a)	***Main Machinery***				
i.	M.S. Vat 1000 kg capacity	NOS.	1	20000	0.40
ii.	Trey Drier Cap 96 Trey fitted with exhaust fan & Heating cost	Nos	1	100000	1.00
iii.	Pulverizer capacity 100 kg fine powder of 400 mesh per shift	Nos	2	100000	2.00
IV	Distillation apparatus SIEVES,PACKING MACHINE, MIXING VESSELS, FILTERING, ETC.	Nos	1	100000	2.60
V	installation , erection electr.			100,000	0.50
VI	taxes and transportation			100000	0.50
	sub-total Plant & Machinery				**7.00**
	Furniture / Electrical installations				
a)	Office furniture	LS	1	50000	0.50
b)	Stores Almirah	LS	1	0	0.00
c)	Computer & Printer	L. S.	1	50000	0.50
	sub total				**1.00**
	Other Assets				
a)	preliminary and preoperative				0.70
	sub-total Other Assets				0.70
	Total				**8.70**

13. PROFITABILITY CALCULATIONS:

Sr. No.	Particulars	UOM	Year-1	Year-2	Year-3	Year-4	Year-5
1	Capacity Utilization	%	60%	70%	80%	90%	100%
2	Sales	₹. In Lacs	28.80	33.60	38.40	43.20	48.00
3	Raw Materials & Other direct inputs	₹. In Lacs	20.74	24.19	27.65	31.10	34.56
4	Gross Margin	₹. In Lacs	8.06	9.41	10.75	12.10	13.44
5	Overheads except interest	₹. In Lacs	5.10	5.42	6.06	6.25	6.38
6	Interest@ 10 % on 2.20 lakhs	₹. In Lacs	1.90	1.90	1.27	0.95	0.76
7	Depreciation	₹. In Lacs	4.90	3.50	2.45	1.75	1.58
8	Net Profit before tax	₹. In Lacs	**-3.84**	**-1.41**	**0.98**	**3.14**	**4.73**

14. BREAKEVEN ANALYSIS:

The project shall reach cash break-even at % of projected capacity as detailed below:

Sr. No.	Particulars	UOM	Value
1	Sales at full capacity	₹. In Lacs	48.00
2	Variable costs	₹. In Lacs	34.56
3	Fixed costs incl. interest	₹. In Lacs	7.14
4	BEP = FC/(SR-VC) x 100 =	% of capacity	53.12%