

# **PRE-FEASIBILITY REPORT FOR THE PRODUCTION OF HERBAL DRINK**

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## **1. Introduction of Technology/Process/Product**

### **Name of Technology/Process/Product:**

Production of Herbal Red Syrup

### **Summary:**

Due to location in the temperate region Pakistan is one of those countries where the demand for beverage are very high. The ingredients of the extract on which the drink is based are obtained from local herbal sources which are commonly used in "Tibb" for their pro-health characteristics. These herbs have carminative, cooling and stimulating effects some are even used as tonics. The drink has an appealing flavor, good taste and color, incorporating the original characteristics of the herbs used. This product is economical as compared to the similar drinks available in the market. It has a great potential for export to Afghanistan and Central Asian Countries.

### **Project brief (*Local/International Perspective*)**

- Distillation of herbs
- Preparation of sugar syrup
- Mixing of ingredients
- Filtration
- Cooling of the material
- Monitoring of the process control parameters
- Production of Herbal Red Syrup in hygienic conditions to ensure the quality control of the final product.

## **2 Main Parameters of Technology/Process/Product**

### **Main Feature:**

- Prepared from natural herbal extract
- Pro-health characteristics
- Carminative, cooling and stimulating effects
- Use as a Tonic
- Appealing flavour, good taste and attractive colour

**Input (*Raw materials with specifications*)**

- Sugar
- Herbal Distillate
- Food colour
- Flavour
- Water

**Output (Products, byproducts with specification)**

- Red Herbal Syrup

Brix	75°
pH	6.2

**Application/Uses**

- This product can be used as a refreshing drink when diluted with water or milk, having carminative, cooling and stimulating effects, appealing flavour, good taste and attractive colour.
- One standard bottle(750 ml ) would yield about 30 glasses of drink , making it more economical than the other similar products available in the market.

**Trail Results:** Good

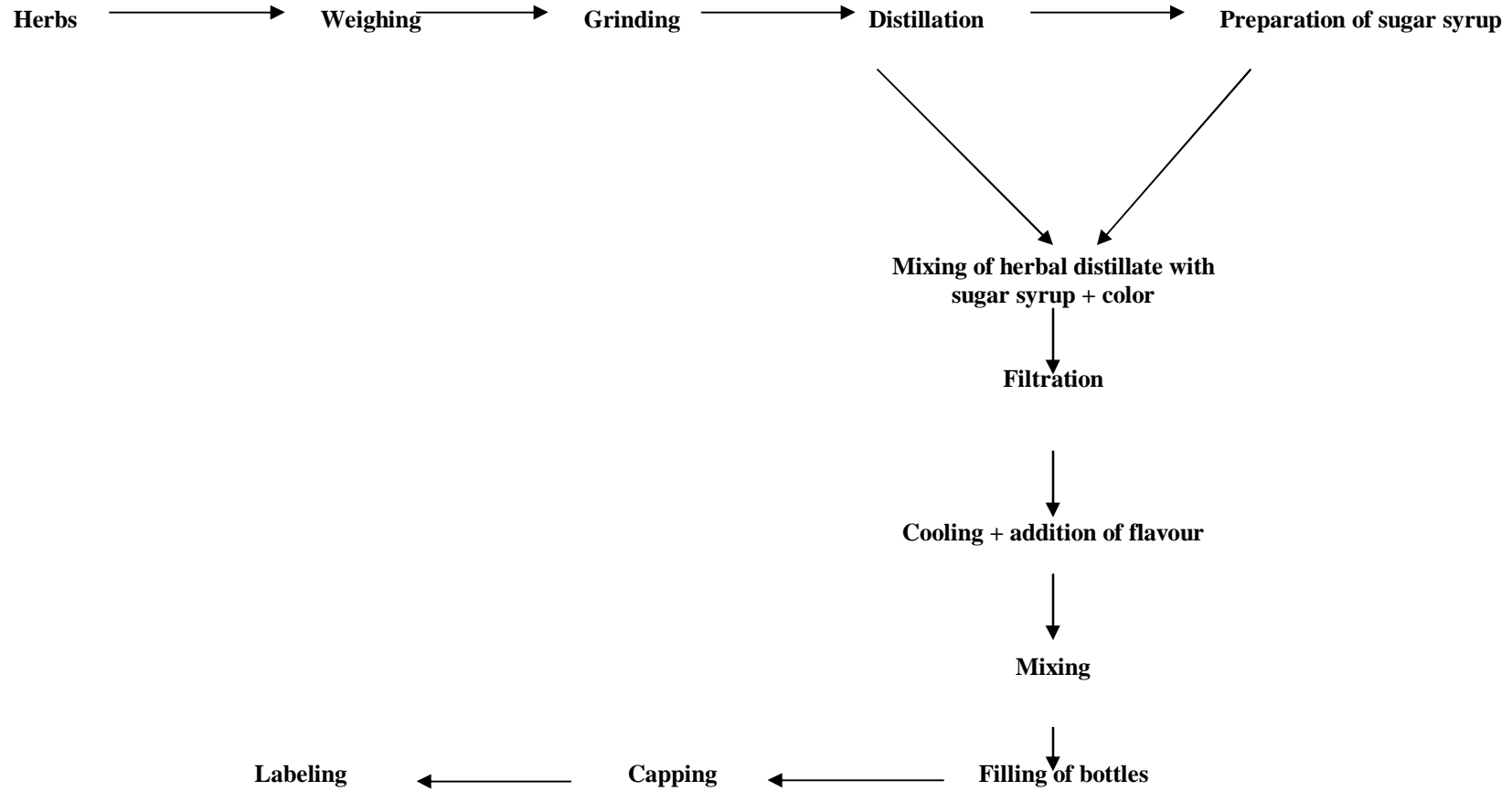
**Technical data**

- Proposed capacity: 500 bottles / day/batch
- Production time per batch: 8 hr
- Packing size:750 ml each

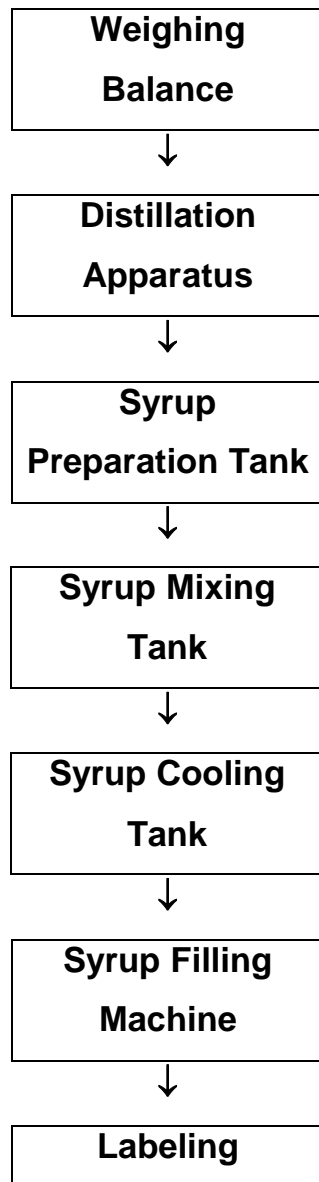


**Production process/Flow diagram**

**Flow sheet for Red Herbal Syrup Preparation**



## Equipment layout diagram



### Machinery required with specification

S. No	Items	Description	Qty	Cost (Million Rs.)
1	Syrup Preparation Tank with Agitator(Steam Jacketed)	500 liter capacity	One	0.5
2	Syrup Filtration Unit Housing complete	100 Liter/hr.-	One	0.4
3	Mixing Tank with Agitator and Cooling facilities	500 Liters capacity	One	0.5
4	Herbs Distillation Unit	10 liters / hour	One	0.1
5	Bottle filling Machine with capping and labeling facilities	100 bottles/hr.	One	0.6
6	Herbs Distillate Storage vessels (glass or plastic )	50 liters	Four	0.02
7	Weighing Balance	50 Kg capacity	One	0.05
8	Weighing Balance	01 Kg capacity	One	0.01
9	Grinding Machine	10 Kg capacity	One	0.1
10	pH meter	-	One	0.15
11	Refractometer	-	One	0.1
10	Miscellaneous	-	-	0.02
<b>Total</b>				<b>2.55</b>

### Standard specifications & test methods

Standard specifications	Test methods
Total Soluble Solids	AOAC 2000
pH	AOAC 2000
Acidity	AOAC 2000
Preservative	AOAC 2000

### Quality control equipment with specifications

S. No	Items	Quantity
1	Digital Balance	One
2	Digital Refractometer	One
3	pH meter	One

**xii. Environmental Impact:**

Friendly

**xiii. Availability of technical support:**

Available

**xiv. Available of Brochures/Pamphlets:**

Brochure will be prepared

**xv. Status of registration/Patent/Trade Mark:**

Not Patented

### 3. Estimation of Fixed Capital Investment (PKR)

#### Fixed Capital Investment

Land 02 Kanal	8.0 million
Building (covered area) 8000 Sq. feet	12.0 million
Furniture & Fixture (Office /Factory)	1.0 million
Plant & Machinery	2.55 million
Technology Transfer fee	1.0 million
Total Fixed cost of the project	24.55 million
Add: working capital	5.0 million
Total project cost	29.55 million

#### 4 Marketing Aspects

Total industry and annual growth	Data not available
Current demand	Data not available
Local production facilities	Data not available
Imports	Nil
Major users	Public

#### Marketing strategy

- **Hold regional exhibition & seminars**
  - Supplied samples to SAMEDA for marketing
  - Displayed samples at various chamber of commerce & industries.
  - Exhibited in various exhibitions held in capital cities.
- **Publicity through electronic & print media Nil**

#### 5 Detail of Cost::

Direct Production Cost	Rs.29000/batch
Raw materials cost per Unit	26500/batch
Direct wages cost per unit	500/batch
Production overhead cost per unit	
Admin. & Selling Expenses, Salaries & benefits per month	Rs.50000/month
Utilities charges per month	Rs.2000/batch
Communication expenses per month	-
Other expanses per month	Rs.5000/month
Publicity, advertisement expenses per month	Rs.10000/month