

## Research on Herbal tea Making

Herbal tea, a centuries-old beverage known for its therapeutic benefits, has gained significant attention in recent years due to its health-promoting properties and natural composition. Research into herbal tea making focuses on identifying suitable plant species, their active compounds, and optimal processing techniques to enhance flavor and efficacy.

Key ingredients in herbal teas include leaves, flowers, roots, and seeds from plants like chamomile, peppermint, hibiscus, ginger, and tulsi (holy basil). Studies have shown these herbs to possess antioxidants, anti-inflammatory agents, and bioactive compounds that support digestion, improve immunity, and reduce stress. Research emphasizes the importance of selecting organically grown raw materials to ensure purity and avoid contaminants.

Processing methods, including drying, grinding, and blending, are critical for preserving the bioactive compounds while maintaining aroma and taste. Innovations like freeze-drying and vacuum packaging have been explored to enhance shelf life and retain nutritional value.

Additionally, research examines consumer preferences, including caffeine-free and customized blends, and investigates sustainable packaging options to meet environmental concerns. The growing demand for herbal tea reflects the shift toward natural remedies, making research in this area vital for developing products that cater to health-conscious consumers while promoting sustainable and eco-friendly practices.



## Findings of Herbal Tea Made from Tea Waste

### Nutritional Composition

- Polyphenols: 75 mg/g
- Moisture %: 6%
- Vitamin C: 2.25 mg/g
- Protein: 3.75% (approx.)
- Potassium: 94 mg/100g (approx.)
- Iron: 6.35 mg/100g (approx.)

#### Sensory Evaluation Parameters

- Color: 4.8 (out of 5)
- Aroma: 4.5
- Taste: 3.8
- Overall Acceptability: 4.3

#### Cost Analysis of Herbal Tea Ingredients

Product	Ingredient	% Waste of Whole Fruit (m)	Market Price of Used Ingredient	Derived Cost of Waste (₹)	Total Cost (₹)
Pomegranate Peel	Pomegranate	40%	₹50/500g	₹1.00	₹1.00
Cucumber Peel	Cucumber	25%	₹8/500g	₹0.20	₹0.20
Beetroot Peel	Beetroot	10%	₹35/500g	₹0.35	₹0.35

#### Herbal Tea (50g)

- Cardamom: ₹0.60
- Cinnamon Stick: ₹0.60
- Black Pepper: ₹0.48
- Clove: ₹0.60

The total cost for the production of herbal tea from these ingredients sums up to ₹5.63 for 50g.