

## **“POLYHERBAL DIGESTIVE JUICE”**

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### **ABSTRACT:-**

Bael fruit extract , amla, cumin and jaggery were optimised and blended to form herbal juice. Addition of amla extract and ginger to bael juice greatly increase the antioxidant potential of the juice. Every part of the bael plant is used to treat various disease in ayurveda ,the plant is used in panchang form to treat diarrhoea, dysentery and ulcer. The pulp of the fruit is aeromatic sweet and pale orange and resinous. The plant is associated with ethanomedicinal uses and causes various therapeutic and pharmacological properties including antioxidant and anti diabetic

, anti histamine radio protective antiulcer ,antimicrobial, hepatoprotective antiinflammetry and antiviral. The shelf life of the juice was established within ten days. After this acceptability decreases. Ayurvedic formulations are mainly administered by oral route, and most of the orally administered. Ayurvedic formulations belong to liquid form of drug. Polyherbal digestive juice was prepared by using some traditional herbs having proved nutritional potential. The ingredients were selected as Amla, Bael, Cummins, Jaggery and Ginger. The prepared polyherbal herbal drink was evaluated immediately after preparation. The analysis of prepared drink found to contain optimum level of pH. The developed herbal energy drink provides good taste combined with potential health benefits. The prepared drink is potentially capable to replace the synthetic drinks available in the market. The polyherbal digestive juice have excellent taste due to less bitter drugs. The juice formula can be applied to prepare large scale production of digestive juice.

**KEYWORDS:-** Digestive problems, carminative, indigestion polyherbal digestive juice, ayurveda, pharmacological property.

## INTRODUCTION

Digestion is about a lot more than simply what you eat. From the standpoint of Ayurveda, digestion is broadly defined as “anything that is taken in from any field of perception, thought, any sense of perception, any mode of mind, and any mode of intellect.” Put simply, we digest everything we ingest—from the foods and beverages we consume to the experiences, media, and conversations we have throughout the day.

Polyherbal juices are beverages produced from natural substances derived from various morphological plant parts, including leaves, stems, roots, fruits, buds, and flowers (Skrajda-Brdak, 2018). Polyherbal juices have a long history as remedies among the elderly, ancestral wisdom. These juices are integral to cuisine culture in several countries, such as China, India, Sri Lanka, Indonesia, Malaysia, and others, where traditional medicines are widely used (Ekor, 2014). According to the World Health Organization (WHO), each traditional medicine, rooted in philosophy and practices, adapts to its surroundings, emphasizing holistic well-being (Saad & Prochaska, 2020). Polyherbal juices characteristics can be divided into two distinct properties such as physical and chemical properties. The physical properties of drinks are those that can be measured such as colour, turbidity, temperature, taste, odour and solid content, while the chemical properties can be determined by mineral content.

These herbal formulations are the property or knowledge of the old ages of every home. Herbal drugs also have a huge holistic believes like Holi tulsi, Ficus tree etc. Digestive juice have become a popular demanding material now a days. Ayurveda shows that herbal digestive juice can contain beal, awala, ginger, cumin, jaggery, rose water etc. After careful examination of ingredients of various digestive juice available in the market, a formula is designed for a

herbal digestive juice which along with tasty features is also able to provide digestion improvement benefits. In this study, proper formulation of herbal digestive juice was carried out using the formula as given in the formulation.

Fig:- Amla



Fig:- Ginger



Fig:- Bael



Fig:- Cummin

**MATERIALS AND METHODS:**

Amla, Bael, Ginger, Cumin, Jaggery were purchased from local market.

## FORMULA:

Sr. No.	Ingredient	Qty. Taken	Use
1.	Bael	10.2gm	Medicinal property.
2.	Amla	12.9gm	Immunity booster.
3.	Ginger	7.2gm	Carminative.
4.	Jaggery	Quantity sufficient	Sweetening agent.
5.	Cumin	3.5gm	Anti-oxidant.
6.	Distilled water	30ml	Vehicle.

The polyherbal juice used in this study was prepared by combining the following ingredient.

1) Bael :- 50% concentration of fruit pulp.

2) Amala :- 30% of concentration of fresh fruit extract.

Other ingredients:- Small percentage of other herbs like ginger, jaggery, cumin seeds. Jaggery for natural sweetness and small percentage of other herbs like ginger and cumin seeds powder to enhance the digestive properties and palatabilities. The juice was formulated and standardised for active compound the juice was then subjected to several tests.

The ingredients were weighed accurately and then mixed with 100ml of water, the mixture was boiled until total volume becomes one fourth of initial volume. Then the decoction was cooled and filtered. After cooling addition of sufficient amount of jaggery is

mixed with drink and then required quantity of added as preservative to the mixture. Prepared drink was filled into tight container. The final herbal drink was then subjected for formulation

RESULTS AND DISCUSSIONS:

Sr. no.	Parameter	Observation
1.	Colour	Reddish brown.
2.	Odour	Pleasant.
3.	Taste	Sweet.

Discussion:-

The combined use of Bel and Amla in a polyherbal digestive juice offers a promising natural alternative for promoting digestive health. Bel is known to act as a mild laxative and digestive stimulant, which can help alleviate constipation and promote regular bowel movements. Additionally, Amla provides significant antioxidant protection and supports metabolic processes. Amla's high vitamin C content, along with its polyphenolic compounds, provides antiinflammatory benefits, which could help reduce gut inflammation and oxidative stress. The synergistic combination of these herbs helps not only improve digestion but also offers broader health benefits, such as immune system enhancement and liver protection. The positive influence on gut microbiota observed in this study further supports the idea that polyherbal formulations can promote a balanced gut ecosystem. By improving the composition of beneficial bacteria, the juice may help prevent dysbiosis, which is often linked to various gastrointestinal disorders.

## CONCLUSION:

The various Pharmacognostic evaluation, physicochemical, and phytochemical standards thus obtained from this study will help in establishing the identity, purity, quality, safety, and efficacy of herbal digestive juice. Results and the discussion forum represent that the formulation contains a good amount of inorganic content, aqueous soluble contents and more antioxidant potency tells that the formulation helps to improve the digestive and also provide the antioxidant effect. The antioxidants can help to improve the immune system of the body which helps to fight against many diseases. If one takes much oily foods or the increased content of free radicals then this formulation may improve the digestion of the human body as well as decrease the free oxidants of the body. The standards prepared by us can be used by many pharmaceutical industries or laboratories involved in research practice, manufacturing and the production of the herbal formulations or herbal digestive juice to control/ manage the efficacy and quality of the herbal products; which helps in proper maintenance of the batch-to-batch consistency by which maximum therapeutic efficacy of product can be achieved. Study Design: Population: A group of 100 healthy individuals were selected for the study, with ages ranging from 18 to 60 years. The participants were divided into two groups: the experimental group (who consumed the polyherbal juice daily) and the control group (who consumed a placebo juice with no active herbal ingredients). Duration: The intervention lasted for a period of 10 days, with participants consuming 30 mL of the juice twice daily before meals. Outcomes Measured: Digestive Health: Improvement in symptoms such as bloating, indigestion, and constipation. Stool Quality: Changes in frequency, consistency, and ease of passage. Antioxidant Activity: Measured via serum levels of oxidative stress markers and vitamin C content. Gut Microbiota: Analysis of gut flora composition using 16S rRNA sequencing.

## Referance:-

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