

# Formulation And Evaluation of New Herbal Toothpaste

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**Abstract—** *Toothpastes or dentifrices these are the products which issued for the cleaning, oral hugging or such as freshets of mouth and to avoid tooth decay. The many more dentifrices prepared by herbal and synthetic tooth paste was prepared by using various herbal products. Which passes or permits antibacterial antiseptic and cooling features. Herbal toothpaste removes it dirt remove bad smell, plant-based toothpaste can also reduce the gingivitis. (Gums become swallow and bleed easily.) it may cause tooth decay. Herbal toothpaste utilizing plant-based extracts like Neemleaves, Guava leaves babool, Cinnamon Bark and other additives honey and Camphor. The formulated herbal toothpaste compared with marketed products physical examination. Colour-greenish brown, smooth in nature the density is 10.0, and ph 8.2, Spreadability – Good and stable formulation. There are some marketed herbal toot past ex. Himalaya, Dabar redtoothpaste Colgate, herbal Toothpaste, Vicco.*

## I. INTRODUCTION

The Removal of dental plaque is important for maintaining oral health of crown, root enamel, dentine and pulp there are many more problems associated with the teeth such as bad breath, tooth decay, tooth sensitivity tarter, calculus, gingival inflammation, dental caries and dental plaque. Etc. Cleaning of the surface of the teeth is the primary and main function of a dentifrice when used with toothbrush. Toothbrush (dentifrice) is helps in the removal of food particles reduction of superficial plaque or station, polishing of tooth surface and refreshing mouth breath the main criteria behind making herbal toothpaste is to fight against bacteria that cause problems regarding to teeth like, gum, gingimal inflammation, etc. There are

various herbal elements are reported to have remarkable beneficial effects on various dental problems mentioned following Clove, Neem, (indicia) sunthi, Mentha, Charcoal, miswakpippali, aloe, capoor, babool, barsali, They play important and different different role through, different mechanism like by providing. Protective layer over teeth, prevent from tooth decay, providing fresh smell, antibacterial effect, reduce dental pain, reduce sensitivity. The present work deals with development and evaluation of herbal toothpaste containing leaves of various plant.

## II. MATERIALS AND METHODS

Tulsi – It consist of fresh and dried leaves of osmium like osmium sanctum.

Classification:-

Kingdom - Plantae

Unranked - Asteroids

Order. - Lamiae's

Family. - Lamiaceae

Genus. - Ocimum

Species - Tenuiflorum

It is on excellent mouth thresher and oral disinfectant and it is freshness lasts for a very long time.. It destroy more than 99 % of germs and bacteria. It cures ulcers in the mouth .It destroy the bacteria that are responsible for place, tarter, bad breath while also protection teeth

“(BAY LEAF)

Kingdom. - Classical

Unranked. - Angiosperms

Unranked. - Mangolids

Order - Laurels

Family. - Lauraceae

Genus. - Cinnamon

Species. - tamala

By leaves have Compounds it helps whitening teeth naturally, It also helps to keep gums in healthy Condit It Prevents cavities.

Guava - Dried leaf

Kingdom - Plantae

Division. - Magnoliophylo

Class. - Magnoliospida

Order. - Myrtales

Family. - Myrtaceae

Genus. - Psidium

Species - guava

The bark and leaf extracts of guava the leaves of guava are rich in flavonoids. The Flavonoids have demonstrated anti-bacterial activity. Leaves are chewed to relieve toothache and to cure bleeding gum and bad breath.

Mango leaf: - Dried Leaf of magniferaindica

Kingdom - Plantae

Division. - Magnoliophylo

Class. - Magnoliospida

Order - Spinoales

Family. - Anacardiaceous

Genus - Magnifera

Species. - Indica

The ash of these leaves can be to the aching tooth to provide relief from pain. These leaves are boiled and strained and the infusion can be used as a rinse or gargled with for comfort.

Method

The leaves of all four plants were cleaned, washed in tap water to remove dirt, then, it will be dry frist in air, then in hot air oven at 55°C. Temp till constant weight get achieved. Biological Name Use Neem stem & bark

Azadirachtaindicameliaceae =. Antibacterial

Babul leaves acacia Arabica =Astringent  
Amrudleves. =. Anti-inflammatory

Kalmia bark Cinnamon zellanicum= flavouring agent

Ca.mphor Cinnamonumcamphora =. Antiseptic

Honey Apismellfiera. = Sweetning agent

Formulation

Biological Name. Use

Tragacanth. - 1.2gm

Tulsi Leaf Powder. - 1 gm

Bay leaf powder. - 0.5 gm

Mango leaf Powder. - 1.9m

Guava Leaf Powder - 1 gm

Calcium Carbonate - 46.59gm

Sodium Saccharin. - 0.05 gm

Methyl Paraben - 0.15 gm

Sodium Laurilsulphat - 13 gm

Sorbitol.	-	30 gm
H2o.	-	9.5 gm
Pepper mint oil	-	1 ml
Preservative	-	9.5 ml
Flavour.	-	9.5 ml

### III. ADVATAGES

Delivers active ingredients such as floured to help present tooth and gum disease

Whitening teeth

Desensitizing tooth

Recent advances in tooth paste enable high efficacy of oral health .Easy to use, available in collapsible tubes.

### IV. DISADVANTAGES

Extended consumption of large volume of fluoridated toothpaste can result in fluorosis floral dated toothpaste can be either

Accurately toxic if swallowed in large amounts or chronically toxic. An active ingredient in many toothpaste can combine with chlorine in tap water to form chloroform which is a human carcinogen.

### V. EVALUTION

PH-The net quality of 5 gm of sample was accurately weighed and placed in 150ml of backer to 45 ml of freshly boiled and cooled water was added at 27°C it was stirred well to make through suspension the PH determined within 5 min using PH meter and shaken for 10 lim. ex. Final volume of foam was noted.

### VI. ABRASIVENESS

Extrude the content 15-20cm long on though butter paper repeat the same process for at least ten collapsible tubes press with the contents of the entire length with tinge lip for the pisencefo sharp and hard edged abrasive particles tooth gel shall no.1 contain such particles.

### VII. VISCOSITY

It was determined by using ursco meter with 2 no spindles

### VIII. MICROBIALGROWTH

In this method nutrient agar media was used the blank and sample participate were used and formulated gel sample were aseptically transferred on the sample plate in closes pattern the growth of microbial cross pattern the growth of microbial was check continuously upto 15 days.

### IX. CALCULATION

% by mass =  $100 \frac{m}{M} \frac{Mli}{M}$  – loss of mass (g) on during M-mass of the material taken for the test

### X. RESULT

Physical examination  
 Colour - yellowish brown  
 Odour - Characteristic  
 Taste - Sweet  
 Smoothness – smooth

### XI. EVALUTION RESULT:

Transparency - Translucent  
 PH - 7  
 Homogeneity - Good  
 ABRASIVENESS. - Good abrasive  
 VISCOSITY. - 3100 cp  
 Foam ability. - 9.5 good  
 Spreadability. - 6.5 cm/sec  
 Stability. - Stable.

### CONCLUSION

The present formulation has good organoleptic spreading foaming abrasive properly and in vitro antimicrobial properties it also has the advantage of absence of harmful chemicals & presence of herbal powers with wide spectrum of natural companies beneficial for teeth & oral cavity compared to conventional tooth paste therefore the formulate has future aspect of further insight into such formulate & wide usage.

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